Plas Newydd Farm Wetlands and Other Waters Delineation Report

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Table of Contents

Secti	ion			Page
Acro	nyms	and Abl	breviations	vii
1	Intr	oductio	1	
	1.1	Projec	ct Background	1
	1.2	Site D	escription	1
		1.2.1	Lewis River and Gee Creek Study Area	3
		1.2.2	Farm Fields and Lancaster Lake Study Area	4
		1.2.3	Gee Creek - South Backwater Study Area	5
	1.3	Lands	cape Context and Ecological History	6
	1.4	Jurisd	ictional Authorities	7
2	Met	hods		9
	2.1	Prelin	ninary Data Collection	10
		2.1.1	Precipitation Data and Analysis	10
		2.1.2	Wetland Inventory Data and Aquatic Critical Areas	13
		2.1.3	Non-Aquatic Critical Areas	14
		2.1.4	USDA/NRCS Soil Survey Maps	15
		2.1.5	Topographical Data	17
		2.1.6	Hydrological Data	17
	2.2	Field I	Methods	20
		2.2.1	Vegetation	21
		2.2.2	Soil	22
		2.2.3	Hydrology	23
		2.2.4	Wetland Ratings and Buffers	23

		2.2.5	Mapping	24
		2.2.6	Lewis River and Gee Creek Study Area Methods	25
		2.2.7	Farm Fields and Lancaster Lake Study Area Methods	28
		2.2.8	Gee Creek - South Backwater Study Area Methods	30
3	Resu	ılts		31
	3.1	Lewis	River and Gee Creek Study Area	31
		3.1.1	Wetland 1	31
		3.1.2	Wetland Mosaic	37
		3.1.3	Wetland 4	38
		3.1.4	Wetland 5	39
		3.1.5	Wetland Rating Category, Functions, and Buffers	39
		3.1.6	Other Waters	42
		3.1.7	Uplands	43
	3.2	Farm I	Fields and Lancaster Lake Study Area	45
		3.2.1	Wetland 2	45
		3.2.2	Wetland Rating Category, Functions, and Buffers	50
		3.2.3	Uplands	52
		3.2.4	Other Waters	53
	3.3	Gee Cr	eek - South Backwater Study Area	54
		3.3.1	Wetland 3	54
		3.3.2	Wetland Rating Category, Functions, and Buffers	56
		3.3.3	Other Waters	57
		334	Unlands	57

4 Cond	clusions59
References	63
Figures	
Figures	
Figure 1-1.	Vicinity Map
Figure 1-2.	Lewis River and Gee Creek Study Area
Figure 1-3.	Farm Fields and Lancaster Lake Study Area
Figure 1-4.	Gee Creek – South Backwater Study Area
Figure 2-1.	Wetland Inventory and Aquatic Areas Map: Lewis River and Gee Creek Study
	Area
Figure 2-2.	Wetland Inventory and Aquatic Areas Map: Farm Fields and Lancaster Lake
	Study Area
Figure 2-3.	Wetland Inventory and Aquatic Areas Map: Gee Creek – South Backwater Study
	Area
Figure 2-4.	Clark County Habitat Conservation Critical Areas: Lewis River and Gee Creek
	Study Area
Figure 2-5.	Clark County Habitat Conservation Critical Areas: Farm Fields and Lancaster
	Lake Study Area
Figure 2-6.	Clark County Habitat Conservation Critical Areas: Gee Creek – South Backwater
	Study Area
Figure 2-7.	USDA/NRCS Soil Survey Map: Lewis River and Gee Creek Study Area
Figure 2-8.	USDA/NRCS Soil Survey Map: Farm Fields and Lancaster Lake Study Area
Figure 2-9.	USDA/NRCS Soil Survey Map: Gee Creek - South Backwater Study Area
Figure 2-10.	Hydrograph of 15-Year Average Stage Height for the Columbia River at
	Vancouver
Figure 3-1a.	Wetland Boundary Map – Northern Section: Lewis River and Gee Creek Study
	Area

Figure 3-1b. Wetland Boundary Map – Southern Section: Lewis River and Gee Creek Study Area Figure 3-2a. Vegetation Community Map - Northern Section: Lewis River and Gee Creek Study Area Figure 3-2b. Vegetation Community Map – Southern Section: Lewis River and Gee Creek Study Area Figure 3-3. Wetland Buffer Map: Lewis River and Gee Creek Study Area Wetland Boundary Map - Northern Section: Farm Fields and Lancaster Lake Figure 3-4a. Study Area Figure 3-4b. Wetland Boundary Map - Southern Section: Farm Fields and Lancaster Lake Study Area Figure 3-5a. Vegetation Community Map – Northern Section: Farm Fields and Lancaster Lake Study Area Figure 3-5b. Vegetation Community Map – Southern Section: Farm Fields and Lancaster Lake Study Area Figure 3-6. Wetland Buffer Map: Farm Fields and Lancaster Lake Study Area Figure 3-7. Wetland Boundary Map: Gee Creek - South Backwater Study Area Figure 3-8. Vegetation Community Map: Gee Creek - South Backwater Study Area Figure 3-9. Wetland Buffer Map: Gee Creek - South Backwater Study Area

Appendices

Appendix A	Wetland Delineation and Mosaic Data Forms
Appendix B	Ecology Rating System Data Forms
Appendix C	Site Photographs
Appendix D	Historical Aerial Photographs

Tables

Table 2.1. Precipitation Summary for Recent Period Preceding Site Visits	11
Table 2.2. Precipitation Summary for 3 Months Preceding Site Visits	12
Table 2.3. Selected Flood Return Intervals and Corresponding Adjusted Water Surface Elevati	ions
for the Lewis River and Gee Creek Study Area	20
Table 2.4. Wetland Indicator Status Definitions	22
Table 2.5. Results of Hydrological Test Pits	29
Table 3.1. Wetland Ratings for Wetland 1, 4, and 5	40
Table 3.2. Wetland Rating for Wetland 2	51
Table 3.3. Wetland Ratings for Wetlands 3 and 4	56
Table 4.1. Wetland Delineation Results Summary Table	61

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Acronyms and Abbreviations

CCGIS Clark County Geographic Information System

County Clark County

Corps United States Army Corps of Engineers

CWA Clean Water Act
DLC Donation Land Claim

Ecology Washington Department of Ecology EPA Environmental Protection Agency

FAC facultative

FACU facultative upland facultative wetland

FEMA Federal Emergency Management Area FR-20 Forestry with minimum lot size of 20 acres

GPS Global Positioning System HCA Habitat Conservation Area

HGM hydrogeomorphic

LiDAR light detection and ranging

LUBTh lacustrine unconsolidated bottom, semipermanently-tidally, diked/impounded

LUBVh lacustrine unconsolidated bottom, permanently-tidally flooded,

diked/impounded

LWI local wetland inventory

NAVD88 North American Vertical Datum of 1988

NOAA National Oceanic and Atmospheric Administration

NOWData NOAA Online Weather Data

NRCS National Resource Conservation Service

NWI National Wetland Inventory

OBL obligate

OHWM ordinary high water mark

PABFx palustrine aquatic bottom, semipermanently flooded, excavated

PEMA temporarily flooded palustrine emergent

PEMAd temporarily flooded palustrine emergent, partially drained/ditched

PEMC palustrine emergent, seasonally flooded

PEMCd palustrine emergent, seasonally flooded, partially drained/ditched

PEMCx palustrine emergent, seasonally flooded, excavated

PEM1Fd palustrine emergent, persistent, semipermanently flooded, partially

drained/ditched

PEM1Fx palustrine emergent, persistent, semipermanently flooded, excavated

PEMKh palustrine emergent, artificially flooded, diked/impounded

PFO1A broad-leaved deciduous, temporarily flooded palustrine forested PFO1C palustrine forested, broad-leaved deciduous, seasonally flooded

PHS Priority Habitats and Species

PSS1C palustrine scrub-shrub, broad-leaved deciduous, seasonally flooded
PUBKh palustrine unconsolidated bottom, artificially flooded, diked/impounded

R1EMR riverine tidal emergent, seasonal-tidal flooding

R1UBV riverine-tidal unconsolidated bottom, permanently- tidally flooded

SMA Shoreline Management Act

SWPCA State Water Pollution Control Act
TNW traditionally navigable water
Type Ns non-fish bearing, seasonal
Type S Shoreline of the State

UPL upland

USDA United States Department of Agriculture USFWS United States Fish and Wildlife Service

USGS United States Geological Survey

WDFW Washington Department of Fish and Wildlife WDNR Washington Department of Natural Resources

WNHP Washington Natural Heritage Program

WRIA Water Resource Inventory Area

1 Introduction and Background

This report has been prepared to document the extent and condition of existing wetlands and other waters within the parcel boundaries for Plas Newydd Farm that are regulated under the Clean Water Act (CWA) by the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology). It also provides wetland ratings and associated wetland buffer widths to satisfy the Wetland Protection Ordinance requirements of Clark County (County; Ordinance No. 2006-05-027; Chapter 40.450 of the County Code) as well as an assessment of other Critical Areas regulated under Subtitle 40.4 of the County Code. This report complies with Corps, Ecology, and County standards and will be used to fulfill regulatory requirements for permitting of the proposed wetland mitigation and conservation bank project.

1.1 Project Background

The privately owned Plas Newydd Farm (Site) is located at the confluences of the Lewis River and Gee Creek with the Columbia River in Washington (Figure 1-1) and includes wetland, stream, and riparian habitat valuable for key terrestrial and aquatic species. The Plas Newydd Conservation Program is completing delineations of wetlands and other waters within the Site to establish baseline conditions in advance of ecological restoration efforts related to development of a wetland mitigation and conservation bank referred to as the Wapato Valley Mitigation and Conservation Bank.

1.2 Site Description

The Site is located at 33415 NW Lancaster Road in Clark County and includes broad floodplain and riparian areas surrounding the steep basalt slopes of the Middle Lands, a 108-foot high outcrop composed of Miocene-era volcanic Grande Ronde Basalt flow. The elevation for the Site ranges from approximately 8 feet in the North American Vertical Datum of 1988 (NAVD88; channels and lakes include lower elevations, but depth unknown) to 104 feet in the Middle Lands. The Site is an active farm and has been used for the past 40 years for a mix of sustainable timber harvest, leased cattle grazing, leased waterfowl hunting, U.S. Department of Agriculture (USDA) National Resources Conservation Service (NRCS) funded farm activities, and quarries permitted for farm use. Cattle are grazed on various locations of the Site from early spring through late fall. Maintenance of the grazed areas has historically included plowing, ripping, and seeding with forage species. Other historical land management actions that have altered the Site

include conversion of floodplain to agricultural land through construction of levees and diversion of water, and filling, grading, dredging and placing of dredge spoils.

The location and management history of the Site presents challenges to the performance of wetland delineation and warrants thorough consideration of historical and current conditions that have influenced wetland field indicators. The Columbia River dominates the local hydrological conditions and its flow stage varies widely, seasonally and inter-annually. Although the Columbia River is dam-controlled, high flow events occur during the growing season, and of durations sufficient to drive wetland hydrological conditions. River stages for 15 previous growing seasons were evaluated to interpret Site hydrological indicators and determine what elevations of the Study Area are commonly subjected to surface water flooding during the growing season.

Much of the floodplain area of the Site is underlain by sandy soils deposited by the Columbia and Lewis Rivers, or Gee Creek, which feature hydric soil indicators. Since the formation of these soils, upstream damming has greatly affected river flows, decreasing frequency and stage of peak flow events. Hydric soil indicators were, therefore, considered relict where vegetation communities or wetland hydrology (including river stage data) indicate wetland conditions are no longer supported. Most upland data plots include relict hydric soil indicators.

Because of the frequent flooding and Site vegetation management, floodplain areas include vegetation tolerant of long duration and frequent inundation, and broad areas vegetated by a mix of native riparian and pasture species, which occur in both upland and wetland. These species are adapted, either through natural selection or by cultivation, to occur across a range of hydrologic conditions.

To account for such uncertainties, delineation study methods for the Site focused on identifying areas where established wetland field indicators, as defined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Corps 2010) and the *1987 Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), were corroborated by available data and Site history information. Areas were determined to be wetland where field and supporting data showed correlation of wetland vegetation, hydric soils, and wetland hydrologic conditions.

The Site has been divided into three Study Areas, based primarily on hydrological conditions: the Lewis River and Gee Creek Study Area is subjected to surface water flooding by the Lewis and Columbia Rivers and Gee Creek as well as hyporheic ground water fluctuations; the Farm Fields and Lancaster Lake Study Area is protected from overbank flooding by levees along the Lewis River and Gee Creek, so hydrology is driven almost entirely by hyporheic groundwater;

and the Gee Creek - South Backwater Study Area is subjected to frequent inundation by Gee Creek, and indirectly, the Columbia River. The Study Areas are separated from one another by the Middle Lands; each Study Area includes a 200-foot wide section of the lower slope of the Middle Lands adjacent to the wetland floodplain areas. Maps of each Study Area are presented in Figures 1-1 through 1-4.

1.2.1 Lewis River and Gee Creek Study Area

The Lewis River and Gee Creek Study Area consists of portions of two tax parcels (tax lot # 217593000 and 217798000) totaling 372.72 acres located in Sections 1, 2, and Donation Land Claim (DLC) 37, Township 4 North, Range 1 West (Figure 1-2). The Study Area is located at the confluence of the Lewis River and Gee Creek with the Columbia River, encompassing floodplain areas, as well as the west-facing slope of the Middle Lands. The Lewis River forms the northern boundary, the Columbia River forms the western boundary, and Gee Creek, along with the Ridgefield National Wildlife Refuge, forms the southern boundary; the east is bounded by a levee-protected grazed pastureland, included in the Farm Fields and Lancaster Lake Study Area, and the upper slopes of the Middle Lands. Topography within the floodplain extent of the Study Area is gently undulating, dissected by sloughs and streaked by a series of swales and ridges, or scroll bar formations; slopes range in gradient from 1-3% and elevation averages approximately 14 feet, NAVD88. The portion of the Middle Lands included within the Study Area consists of steep, rocky slopes at gradients of 10-20% and elevations of 20-104 feet, NAVD88.

The Study Area is zoned for forestry with a minimum lot area of 80 acres (Clark County Zoning Designation FR-80) and it is partially used for cattle-grazing, recreational waterfowl hunting, and timber production (Middle Lands). Improvements include a water control system located in the southern section of the Study Area, which creates a series of three small ponds managed for waterfowl habitat and duck hunting blinds (Figure 1-2), and a livestock watering system. The habitat water control system consists of a rock-fill dam, quarried from local sources, and three flashboard dams constructed over channels used to regulate the water level in the three impoundments. The downstream dam was installed in the 1960's, and the two upstream dams were installed in the 1980's. The livestock watering system consists of stock tanks supplied by a water-collecting cistern with a groundwater pump and an overfill pipe that drains into the waterfowl ponds. The livestock watering structures were installed in 1994 and renovated in 2012.

Vegetation within the floodplain areas of the Study Area consists of deciduous riparian/floodplain forest and scrub-shrub communities with areas of seeded pasture grass mixed with forbs located through the center of the Study Area (in Long Meadow), and herbaceous emergent

communities in the lowest-lying areas. Mixed deciduous-coniferous forest and oak woodland occur within the Middle Lands.

Site wide historical aerial photographs are included in Appendix D; available aerial photos date back to 1929. At that date, the Lewis River and Gee Creek Study Area was grazed over in much of southern section and tree and shrub cover was considerably lower than it is currently. An area of open water area is apparent in the Hunter's Area in the southern section. This area would have flooded at higher elevations, for longer duration, and more frequently prior to the construction of Bonneville Dam in 1938. Additionally, the local Indian tribes used to burn the fields (and collect firewood) to maintain the lowlands as wapato (*Sagittaria latifolia*)-dominated ponded meadows and preclude the establishment of too much woody vegetation (K. Jorgensen, pers. comm., July 2015).

1.2.2 Farm Fields and Lancaster Lake Study Area

The Farm Fields and Lancaster Lake Study Area consists of portions of 4 tax parcels (tax lot # 218030000, 218005000, 217593000, and 218003000) totaling 358.14 acres in Sections 1, 2, and 12, Township 4 North, Range 1 West (Figure 1-3). The Study Area is located along the Lewis River, just upstream of its confluence with the Columbia River and encompasses floodplain areas along with the east facing lower slope of the Middle Lands. It is bounded on the north by the Lewis River, on the east by the BNSF railway embankment and rural residential development, on the south by Gee Creek and the Gee Creek – South Backwater Study Area, and on the west by the upper slopes of the Middle Lands and a forested wetland included in the Gee Creek and Lewis River Study Area. The Study Area is protected from inundation by floodwaters by levees except during extreme flood events; the levees were last overtopped in 1996. The levee to the south (located in an area referred to as The Narrows) impounds surface runoff to form Lancaster Lake; the impoundment appears to occur in a pre-existing topographical depression. A flapper valve tidegate installed at the levee regulates the water level in the lake.

Topography within the Study Area consists of nearly level floodplain that slopes very gradually (<1% grade) to the south, bounded by steep Middle Lands slopes at the western margin and railway embankment slopes at the eastern margin. Study Area elevation ranges from 8-18 feet NAVD88 within the floodplain and 18-80 feet NAVD88 along the slopes; lake bottom elevations are unknown. The Study Area is zoned FR-80 and is currently used for cattle grazing and has been extensively ditched, fenced, and historically tilled and seeded with forage grasses. Other improvements include gravel and dirt access roads and an off-channel livestock watering system. The watering system is composed of a solar-powered groundwater well with an aboveground 5,000-gallon storage tank and a pipe and tank distribution system. It was

constructed in 2012 and funded by NRCS. Recreational waterfowl hunting is also leased throughout the Study Area.

Vegetation consists primarily of seeded pasture grass mixed with forbs in the northern section of the Study Area, scrub-shrub areas in the southern section, and mixed deciduous-coniferous forest along the margins.

Historical aerial photographs of the Farm Fields and Lancaster Lake Study Area depict it as having been cleared for pasture by the time of the 1929 aerial photo, with the Narrows dike at Lancaster Lake and the railway embankment in place. Forestry and agricultural activities in adjacent areas were also underway at this time. It is likely that the levee was built when the railway was laid in the late 1800s as an access route to transport quarried basalt from the Middle Lands for railway construction. The Narrows levee was breached during the 1930s and repaired in 1947 in time to withstand the 1948 flood. The levee along Lewis River is apparent in the 1936 aerial photo, and the current configuration of drainage ditches is visible in the 1969 aerial photo.

1.2.3 Gee Creek - South Backwater Study Area

The Gee Creek - South Backwater Study Area consists of three tax lots (or portions thereof): 217797000, 217798000, and 218003000, totaling 122.25 acres in Sections 1 and 12 and DLC 37, Township 4 North, Range 1 West (Figure 1-4). The Study Area is located along Gee Creek, approximately 1.5 miles upstream of its confluence with the Columbia River, extending to the Narrows on the south side of the levee regulating Lancaster Lake, and encompassing the southfacing lower slope of the Middle Lands. It is bounded on the north by the upper slopes of the Middle Lands and the Farm Fields and Lancaster Lake Study Area, on the east by the BNSF Railway embankment and rural residential development, and on the south and west the Ridgefield National Wildlife Refuge and Gee Creek.

Topography within the Study Area consists of consists of very low-lying flats and backwaters (8 feet NAVD88 and below) studded by steep-faced basalt outcrops above 50 feet NAVD88 and bordered by the slopes of the BNSF railway embankment and the Middle Lands, which range in elevation up to 88 feet NAVD88. It is subject to frequent, long duration inundation by floodwaters from Gee Creek (and, indirectly, the Columbia River).

The Study Area is zoned FR-80 along the northern and eastern boundaries, and for mixed agriculture and wildlife habitat use (Clark County Zoning Designation AG/WL) in the southern and western sections, with a small portion designated as Parks/Wildlife Refuge (Zoning Designation P/WL). Its use is mainly for wildlife habitat, passive forms of recreation (hiking, bird watching), and waterfowl hunting.

Vegetation consists primarily of herbaceous emergent species interspersed with areas of scrub shrub, and deciduous riparian forest; upland coniferous forest and oak woodland occur along the eastern boundary and the Middle Lands.

Historical Aerials (Appendix D) depict the Study Area as having changed little since 1929, by which time the BNSF railway embankment is in place and forestry and agricultural activities are evident in adjacent areas. The Study Area is shown consistently inundated in aerials, with stable vegetation communities, indicating that post-settlement historical conditions are generally present.

1.3 Landscape Context and Ecological History

Plas Newydd Farm is located at the confluence of two major rivers in a semi-rural area within Water Resources Inventory Area (WRIA) 27: Lewis River Basin and the U.S. Environmental Protection Agency (EPA) Level IV Portland/Vancouver Basin ecoregion (Pater et al. 2010). The Portland/Vancouver Basin is a largely developed region of high terraces, floodplains, and low hills with numerous wetlands, oxbow lakes, and ponds. The marine-influenced climate is temperate and mesic, with an average of 37 to 50 inches of annual precipitation, falling mainly in the winter, and mild temperatures throughout the year. Historically, prairie and oak woodland grew in well-drained areas, while wetlands, Oregon ash, Western red cedar, Willamette Valley ponderosa pine, and Douglas fir forests occurred in moister areas. Presently, urban, suburban, and industrial development, agriculture, and forestry are primary land uses in this ecoregion.

According to the *Prospectus for the Wapato Valley Wetland Mitigation and Conservation Bank* developed for the Site by Plas Newydd, LLC (2015), the Site is located in the area that Lewis and Clark mapped and described as Wapato Valley. This area encompasses the lower Columbia River valley, including the Willamette River valley up to about modern Oregon City falls, between the Coast and Cascade mountain ranges (cited as Coues 1893 and Moulton 1983 in Plas Newydd, LLC 2015). The name Wapato Valley was given during their 1805–1806 expedition because of the dominance of wapato in the cultural and ecological landscape (cited as Deur and Turner 2005, Coues 1893, Moulton 1983 and Burroughs 1995 in Plas Newydd, LLC 2015). Portland Basin sedimentation patterns created the ideal hydrogeomorphic floodplain conditions to support vast wapato communities found in the Site. Large expanses of wapato-filled wetlands anchored Chinookan village Sites, provided food security, were used as exchange networks for trade commodity, and were used in the development of specialized tools all throughout the Portland Basin (cited as Coues 1893, Darby in Deur and Turner 2005 in Plas Newydd, LLC 2015).

The following passages from *Keeping it Living* (cited as Deur and Turner, editors, 2005 in Plas Newydd, LLC 2015) describes a vision of ecological and economic sustainability that clearly demonstrates why we have chosen the name "Wapato Valley" to identify the Site:

"In the late eighteenth and early nineteenth centuries, Wapato Valley was an ecologically complex and productive environment that provided the region's human inhabitants with numerous types of food, with many resources (most notably salmon runs) varying considerably over time and space. The Lower Columbia region fits the model put forward by D. R. Harris (1977) of an emergent stable agricultural system, characterized by an ecosystem with high species and pattern diversity, intensive management of some resources within the ecosystem, and plant ecology that was conducive to intensification."

"The Columbia River's large discharge and low gradient created extensive wetlands in the meander floodplain of its lower reaches, which were also subject to daily tidal fluctuations and annual floods. Wapato was ubiquitous in slackwater bays, freshwater tidal mudflats, on marshy islands, and in myriad ponds, lakes, and sloughs, especially on the large, marshy island named "Wapato Island" by Lewis and Clark and today called Sauvie Island."

"Wapato Valley is the broad, tidally influenced freshwater zone in the Lower Columbia River Valley, beginning at the mouth of the Columbia River gorge near the Sandy River confluence, and extending westward to the Kalama River valley. The Coast Range hems Wapato Valley in on the west, and the foothills of the Cascade Mountains form its eastern boundary. The same region is known today as the Portland Basin."

1.4 Jurisdictional Authorities

Wetlands are regulated by the Corps, Ecology, and Clark County under separate jurisdictions. The Corps regulates discharge of materials to wetlands and other "Waters of the United States" under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act (Corps 2008 Regulatory Letter). The Corps authorizes actions that discharge, dredge, or fill into Waters of the United States, including wetlands, through issuance of permits. This report provides descriptions of wetlands and other Waters of the United States, and specific locations of wetland boundaries. Boundaries for rivers regulated under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act are not included in this delineation, as those regulatory limits will be addressed through the mitigation banking process.

Ecology regulates wetlands in Washington State under two separate authorities: the State Water Pollution Control Act (SWPCA) and the Shoreline Management Act (SMA). Through the SWPCA, state Water Quality Certifications are issued pursuant to Section 401 of the CWA. The SMA applies to wetlands within 200 feet of shoreline water bodies or otherwise associated with the water bodies. Ecology may also regulate wetlands through administrative orders or through water quality permits such as for short-term water quality modifications. Ecology has the authority to require permit conditions in addition to those being required by the Corps (McMillan 1998).

Clark County's Wetland Protection Ordinance is included in Chapter 40.450 of the County Code. The County reviews activities with the potential to impact wetlands or their buffers and issues permits when impacts cannot be avoided. Wetland permit applications require a wetland delineation and mitigation plan that demonstrates how wetland impacts will be effectively avoided, minimized, and mitigated. Clark County categorizes wetlands per the *Washington State Wetland Rating System for Western Washington – 2014 Update* (Hruby 2014). Wetland ratings, along with the intensity of the proposed development, are used to establish wetland buffer widths to protect the water quality, hydrological, and habitat functions of the wetland.

Other Critical Areas administered by the County are addressed under Subtitle 40.4 of the County Code and include aquifer recharge areas, hydric soils, flood and geologic hazard areas, and designated habitat areas. Along with wetlands, these Critical Areas are identified as areas which serve important ecological functions and are preserved and protected from the impacts of certain development activities or present a risk to public safety, in the case of potential flood or geologic hazards. Development or alteration in or adjacent to any Critical Area is subject to review and regulation by the County.

2 Methods

This section describes the methods used to identify the boundaries of wetlands and other waters and determine wetland area within the Site; both offsite and onsite methods were employed. In some cases, field methodology varied by Study Area due to differing hydrological and topographical characteristics. Wetlands on the Plas Newydd Farm were delineated according to methodology described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Regional Supplement;* Corps 2010) and the *1987 Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), with some adjustments made as noted in the following sections. Specific field approaches are described by Study Area in Section 2.2.

Wetland delineation work was performed between spring 2014 and fall 2016, allowing for observation of a range of Site conditions. Wetland boundaries for the Lewis River and Gee Creek and the Farm Fields and Lancaster Lake Study Areas were established during spring-summer 2014; the Gee Creek – South Backwater Study Area was delineated in summer-fall 2015. Vegetation transects to determine upland and wetland ratios for mosaic¹ areas in the Lewis River and Gee Creek Study Area were conducted in fall 2016. Additional site visits were performed in between spring 2014 and fall 2016 to inspect delineated boundaries under a range of conditions.

For each Study Area, the presence of hydrophyte-dominated vegetation communities was correlated with hydrological data including river stage, direct observation of wetland hydrological conditions, and secondary hydrological indicators. Soils generally did not inform delineation, as relic hydric soils and basalt outcrops are common in all Study Areas.

Mapping was accomplished by identifying wetland and upland areas, and recording boundary locations using Global Positioning System (GPS) equipment. In areas where wetland, upland and/or mosaic boundaries correlated with elevations, elevation data was used to streamline

¹ Per the *Regional Supplement*, mosaics are defined as "landscapes where wetland and non-wetland components are too closely associated to be easily delineated or mapped separately; areas with a complex microtopography or repeated small changes in elevation occurring over short distances" (Corps 2010). Methods for quantifying the mosaic areas is found in Section 2.2.6.

mapping. In all Study Areas, wetland-upland boundaries were either walked and recorded or inspected along informal transects at frequent intervals to confirm correlation of vegetation, soil, and hydrologic indicators. Mapping methods are further described in Sections 2.1.5 and 2.2.

Outside of formal delineation fieldwork, inspection and informal Site visits were made after the initial delineation to observe high and low water events and seasonal changes. Topographic data was updated through supplemental LiDAR data collected during winter 2015-2016; additional inspections and adjustments occurred during spring 2016 to assure the accuracy of wetland boundary polygons where topographic data changes occurred.

2.1 Preliminary Data Collection

Prior to conducting fieldwork, ecologists reviewed the following available data and information:

- LiDAR data of the Site acquired by GeoTerra, Inc. in February 2016 and products generated from this dataset including aerial imagery
- National Oceanic and Atmospheric Administration (NOAA) Online Weather Data (NOWData) for Vancouver, Washington and Portland, Oregon
- Columbia River stage data from the U.S. Geological Survey (USGS) Vancouver, Washington station (#14144700)
- National Resource Conservation Service (NRCS) Soil Survey of Clark County, Washington
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI)
- Washington Department of Natural Resources (WDNR) hydrography data
- Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) data
- Wetland Protection Ordinance for Clark County (Chapter 40.450)
- Clark County Geographic Information System Database (CCGIS)
 - Clark County Local Wetland Inventory (LWI)
 - o Zoning Designation
 - o Comprehensive Plan Designation
 - o Critical Areas mapping datasets

2.1.1 Precipitation Data and Analysis

Precipitation data for, and prior to, the dates of formal wetland delineation fieldwork were reviewed to evaluate observed wetland hydrology conditions relative to statistically normal precipitation. Precipitation that deviates from normal ranges can affect observed wetland hydrology indicators. Precipitation data were acquired from local weather stations for the Study

Area during the time of fieldwork (NOAA 2014). Fieldwork was conducted between the dates of April 23 and July 18, 2014 in the Lewis River and Gee Creek Study Area, between the dates of May 28 and August 6, 2014 in the Farm Fields and Lancaster Lake Study Area, and between the dates of August 31 and November 18, 2015 for the Gee Creek – South Backwater Study Area. Precipitation data associated with these four dates is presented for analysis as representative of weather conditions throughout the period of investigation. Table 2.1 provides precipitation data for the date of the field visits, precipitation for the two weeks prior to the field visits, and a comparison to the normal water year average.

Table 2.1. Precipitation Summary for Recent Period Preceding Site Visits

		Recorded Precipitation (inches)				
Study Area	Date of Field Visit	Date of Visit	Two Weeks to Date	Water Year to Date	Normal Water Year to Date	Percent of Normal Water Year to Date
Lewis River	04/23/2014	0.37 ^a	1.34 ^a	22.92ª	33.30a	69%
and Gee Creek	07/18/2014	0.00 ^b	0.01 ^b	28.69 ^b	39.07ª	73%
Farm Fields	05/28/2014	0.02 ^a	0.93 ^a	26.13 ^a	36.43	72%
and Lancaster Lake	08/06/2014	0.00 ^b	0.04 ^b	29.33 ^b	39.37	75%
Gee Creek -	8/31/2015	0.00 ^b	0.54 ^b	30.07 ^b	40.02 ^b	75%
South Backwater	11/18/2015	0.25 ^b	3.05 ^b	6.93 ^b	7.09 ^b	98%

^a Data provided by NOWData, Vancouver 4 NNE, Washington, 2014; ^b Data provided by NOWData, Portland International Airport, Oregon, 2014-2015.

Table 2.2 provides monthly precipitation totals for 3 months preceding the first and last Site visits and compares these values to normal monthly precipitation. Also included in the table are the normal monthly ranges of precipitation representing 70% probability as reported in the NRCS WETS table for the area. WETS tables were developed specifically for application to wetland science using climate data from the National Weather Service Cooperative Network for the purpose of defining a normal range for monthly precipitation and growing seasons required to assess the climatic characteristics for a geographic area over a representative time period (NRCS 2002).

Table 2.2. Precipitation Summary for 3 Months Preceding Site Visits

Month	Total Precipitation (inches) ^a	Normal Value for Month (inches) ^b	Percentage of Normal Precipitation	WETS Normal Range of Precipitation ^c
2014				
July	0.65	0.69	94%	0.37-1.24
June	2.31	1.91	121%	1.59-2.93
May	2.33	2.71	86%	2.02-3.88
April	3.60	3.20	113%	3.16-5.03
March	6.21	4.21	148%	4.31-6.30
February	5.56	4.35	128%	4.30-7.07
January	2.79	5.92	47%	4.42-8.33
2015				
October	3.69	3.38	109%	2.17-4.90
September	1.26	1.61	78%	1.10-3.06
August	0.66	0.74	89%	0.45-1.42
July	0.57	0.69	83%	0.37-1.24
June	0.40	1.91	21%	1.59-2.93

^a Data provided by NOAA NOWData Portland International Airport, Oregon, 2014-2015; ^bnormal date range: 1981–2010; ^c NRCS WETS table for Station ID WA0482 in Battle Ground, Washington, 1971–2000.

Lewis River and Gee Creek Study Area Analysis

In the months preceding the first field visit on April 23, 2014, observed precipitation levels rapidly increased from well below normal to well above normal. Precipitation occurred at 47% in January, 128% of normal in February, and 148% of normal in March. In the two weeks preceding the field visit, precipitation was recorded at 1.34 inches, resulting in a total for the water year to date (beginning October 1, 2013) at 22.92 inches (69% of normal). The final field visit occurred on July 18, 2014. Precipitation in the months prior was observed at slightly below normal in May (86% of normal) and above normal in June (121% of normal). In the two weeks preceding the field visit, 0.01 inches of rainfall was observed, resulting in a total for the water year to the date of the final field visit at 28.69 inches (73% of normal).

Farm Fields and Lancaster Lake Study Area Analysis

In the time period preceding the first field visit on May 28, 2014, above normal to near-normal precipitation levels were observed as described above. In the two weeks preceding the field visit, precipitation was recorded at 0.93 inches, resulting in a total for the water year to date at 26.13 inches (72% of normal). Prior to the final field visit on August 6, 2014, precipitation was observed at above normal to near-normal levels (121% of normal for June; 94% of normal for July). In the two weeks preceding the field visit, 0.04 inches of rainfall was observed resulting in a total for the water year to the date of the final field visit at 39.37 inches (75% of normal).

Gee Creek - South Backwater Study Area Analysis

In the months preceding the first field visit on August 31, 2015, conditions were very dry to slightly below normal: precipitation occurred at 21% of normal in June, 83% of normal in July, and 89% of normal in August. In the two weeks preceding the first field visit, precipitation was recorded at 0.54 inches, resulting in a total for the water year to date (beginning October 1, 2014) at 30.07 inches (75% of normal). The final field visit occurred on November 18, 2015. Precipitation in the months prior was observed at 109% in October and 78% in September. In the two weeks preceding the final field visit, 3.95 inches of rainfall was observed, resulting in a total for the water year to the date (beginning October 1, 2015) at 6.93 inches (98% of normal).

Precipitation Analysis Conclusion

For Lewis River and Gee Creek and Farm Fields and Lancaster Lake Study Areas, variable precipitation levels observed within a slightly-below-normal 2013-2014 water year indicate that conditions observed during delineation fieldwork represented typical to somewhat dry hydrological conditions for the early-to-mid growing season based on precipitation. For the Gee Creek - South Backwater Study Area, a dry summer and seasonable fall precipitation indicate that conditions observed during fieldwork also represented typical to somewhat dry conditions for the late growing season of the 2014-2015 and early 2015-2016 water years. River stage during fieldwork, which is also a primary factor affecting observed wetland hydrological condition within the Site, is evaluated in Section 2.1.6.

2.1.2 Wetland Inventory Data and Aquatic Critical Areas

Wetland Inventory and other aquatic Critical Areas occur throughout all three Study Areas. These areas are depicted in the Lewis River and Gee Creek Study Area on Figure 2-1, in the Farm Fields and Lancaster Lake Study Area on Figure 2-2, and in the Gee Creek - South Backwater Study Area on Figure 2-3. NWI wetlands include riverine, lacustrine, and palustrine emergent,

scrub-shrub, and forested classes (USFWS 2014). Clark County also includes these wetlands in their LWI dataset.

The WDNR designates the Lewis River (and associated slough located in the Lewis River and Gee Creek Study Area), Columbia River, and Gee Creek, as Type S: Shorelines of the State (WDNR 2015). Lancaster Lake is identified as "likely to qualify" as a Shoreline of the State according to the Ecology SMP Handbook (Ecology 2012). The extent of Shorelines of the State determined by Mean High Water (8.8 feet NAVD88), which establishes the Site property boundary along these waterways in typical cases. However, the Plas Newydd Farm property boundary, as it pertains to shorelines, is defined at the "line of ordinary high water (=mean high tide) and continues to follow the ambulatory line" (Steve Ivey, WADNR, pers. comm., September 2015) because ownership predates statehood.

Designated Aquatic Lands that are considered of statewide significance and are subject to SMA Jurisdiction (McMillan 1998); they are managed by WDNR. Additionally, Clark County designates a 200-foot buffer area for Type S waters extending from the Ordinary High Water Mark (OHWM) and encompassing associated floodways and 100-year floodplains, which represents potential shoreline management review permit areas.

Finally, Clark County data depicts the Study Areas as entirely within a flood hazard area with the exception of the portions of the Middle Lands included within the Study Areas. This dataset includes Federal Emergency Management Agency (FEMA) floodplain data as well as new, detailed hydrological studies.

2.1.3 Non-Aquatic Critical Areas

Habitat conservation areas and other non-aquatic County-designated Critical Areas are depicted in the Lewis River and Gee Creek Study Area on Figure 2-4, in the Farm Fields and Lancaster Lake Study Area on Figure 2-5, and in the Gee Creek - South Backwater Study Area on Figure 2-6. Habitat conservation Critical Areas are described in detail in the following sections. Presence of these Critical Areas within and surrounding the Study Area may trigger additional development reviews by the County.

Habitat Conservation

The Lewis and Columbia Rivers and Gee Creek are designated by Clark County and the WDNR as within the known range for chum salmon, coho salmon, spring and fall Chinook salmon, and summer and winter steelhead. A County-designated Riparian Habitat Conservation Area (HCA) is associated with all streams. The Riparian HCA is based on a standard buffer width applied to streams based on their DNR typing or the extent of the 100-year floodplain, whichever is greater

(Section 40.440.10[C]). The standard buffer applied to Type S streams is 250 feet. In addition, Riparian HCAs are associated with an additional 100-foot buffer to protect their values and functions. As the Site is composed primarily of floodplain, Riparian HCA covers most of each Study Area.

Non-Riparian HCAs and Species Areas are also mapped throughout the Site. Non-Riparian HCAs and Species Areas are based on WDFW PHS data as well as locally important habitats and species areas mapped by the County (Clark County 2013). Species Areas are designated for areas within 1,000 feet of individual species point sites. According to PHS data, the Site includes concentrations of wintering waterfowl including Canada geese (*Branta canadensis*), sandhill cranes (*Grus Canadensis*), tundra swans (*Cygnus columbianus*), white-fronted geese (*Anser albifrons*), and dabbling ducks (*Anas spp.*; WDFW 2014). The data also indicate the presence of bald eagles (*Haliaeetus leucocephalus*), which are state listed as Sensitive and federally listed as a Species of Concern. Finally, Clark County data depict 300-foot Species Area Buffers and 100-foot Habitat Area Buffers associated with Species and Non-Riparian HCAs

Other Critical Areas

Other Critical Areas are included in the County GIS data but not shown on the Figures 2-1 through 2-6. The County designates the Site and surrounding area as a Category II Aquifer Recharge Area, as affected by Critical Clearing Ordinance, and as having a high probability (80–100%) for archeological significance (Clark County 2013). Aquifer Recharge Areas are areas considered critical to the quality and quantity of groundwater which may be used for future drinking water or business purposes within a 10-year time period (Chapter 40.440.010[C] [2] of the County Code). This designation requires permit conditions for certain development activities that may degrade the quality of groundwater. Potential for archeological artifacts may also require permit conditions for activities that involve soil disturbance.

2.1.4 USDA/NRCS Soil Survey Maps

Soil survey data for the Site was obtained from the Web Soil Survey (Soil Survey Staff, NRCS). In the Lewis River and Gee Creek Study Area, three soil series are mapped: Sauvie, Pilchuck, and Olympic (Figure 2-7); the Farm Fields and Lancaster Lake Study Area includes four soil series: Sauvie, Sara, Washougal, and Olympic (Figure 2-8); and the Gee Creek - South Backwater Study Area includes two: Sauvie and Olympic (Figure 2-9).

Three soil variants (or map units) of the Sauvie series occur over the majority of all of the Study Areas. The Sauvie series was formed mainly in alluvium and occurs on floodplains at elevations of 10-20 feet. Sauvie silt loam with slopes of 0-3% generally occurs in pasture areas within the

center of the Lewis River and Gee Creek Study Area and in the northern end of the Farm Fields and Lancaster Lake Study Area. This variant is moderately well-drained and not prone to flooding or ponding. It is rated as completely non-hydric (no map units rated as hydric). Sauvie silt loam with a sandy substratum and slopes of 0-3% generally occurs over the forested areas along the Lewis River in The Lewis River and Gee Creek Study Area and portions of the northern section of the Farm fields and Lancaster Lake Study Area. This variant is somewhat poorly drained and prone to frequent flooding. It is rated as completely hydric (100% of map units rated as hydric). Sauvie silty clay loam with slopes of 0-8% occurs over low-lying areas in the southern section of the Lewis River and Gee Creek Study Area, over the majority of the Farm Fields and Lancaster Lake Study Area, and over small low-lying portions in the central section of the Gee Creek - South Backwater Study Area. This variant is somewhat poorly drained and not prone to flooding or ponding. It is rated as completely non-hydric.

A shallow variant of Olympic very stony clay loam is associated with basalt outcrop and occurs over small upland areas along the southern and eastern boundaries of the Lewis River and Gee Creek Study Area, along the western boundary of the Farm Fields and Lancaster Lake Study Area, and throughout most of the Gee Creek - South Backwater Study Area. This is a well-drained soil formed in residuum and colluvium weathered from basic igneous rock, occurring on summits of foothills and mountains with elevations of 200-2,000 feet and slopes of 5-15%. It is not prone to flooding or ponding and is rated non-hydric.

Pilchuck fine sand occurs along the Lewis River shoreline in the Lewis River and Gee Creek Study Area. The Pilchuck series consists of very deep, somewhat excessively drained soils that formed in gravelly and sandy alluvium on floodplains at elevations of 10-800 feet and slopes of 0-8%. Pilchuck fine sand is prone to occasional flooding and is rated as non-hydric.

Sara silt loam at slopes of 8-20% occurs along the northeastern boundary of the Farm Fields and Lancaster Lake Study Area. The Sara series consists of very deep, moderately well drained soils formed in old alluvium on river terraces and terrace escarpments at elevations of 250-450 feet. It is rated as non-hydric and is not prone to flooding or ponding.

Washougal stony loam at slopes of 30-60% occurs along the southeastern boundary of the Farm Fields and Lancaster Lake Study Area. This soil series consists of very deep, somewhat excessively drained soils that formed in alluvium from volcanic ash, basalt, and andesite and occurs on river terraces and terrace escarpments at elevations of 50-800 feet. Washougal stony loam is rated non-hydric and is not prone to flooding or ponding.

Gee silt loam occurs at slopes of 8-20% along the BNSF railway just beyond the western boundary of the Gee Creek – South Backwater Study Area, possibly extending into it based on the

soil mapping margin of error. Gee silt loam consists of deep, moderately drained soils formed in old alluvium on dissected high terraces and terrace escarpments at elevations of 150-300 feet. It is rated non-hydric and is prone to neither flooding nor ponding.

2.1.5 Topographical Data

Topographical data were used along with field delineation methods throughout the Site to establish upland, wetland, and/or mosaic boundaries. Boundaries were recorded along informal transects during fieldwork and compared against topographic data to establish elevation ranges for uplands, wetlands and mosaic areas in the Site. LiDAR data for the Site was acquired by GeoTerra, Inc. in February 2016 and used to produce a raster-based digital elevation model with a 3-foot resolution and elevation contour lines at 1-foot and 0.5-foot intervals (shown on Figures 1-2 through 1-4). Ground-surveyed topographical data, provided by the client, were also available for limited portions of the Site.

Statistical analysis performed on the LiDAR dataset yielded a vertical error of ± 1.4 inches (GeoTerra 2016) for the Site overall; however, in areas of dense tree canopy and ground cover, the accuracy of LiDAR data can be compromised. LiDAR data in densely vegetated areas were augmented with the ground-surveyed topographic data to aid in mapping wetland and upland boundaries.

LiDAR-derived elevation data is used exclusively in all topographic maps provided in this report as the ground-surveyed topographic data sets do not cover the entire Study Area. All topographic data was provided by Plas Newydd Farm.

2.1.6 Hydrological Data

The 1987 Corps Manual guidance in determining whether wetland hydrologic criteria are met states that soils should be continuously inundated or saturated to the surface for at least 5-12.5% of the growing season in 5 years out of 10 (Environmental Laboratory 1987). According to the WETS table, the growing season for the Vancouver region in Washington, with temperatures at or above 28°F, spans from March 17 to November 4 (233 days) in 5 out of 10 years (NRCS 2002).

Wetland hydrology indicator criteria can be met with direct observation of surface water or saturation (Group A), observation of evidence of flooding, ponding, or saturation (Group B and C), or observation of landscape features that indicate current rather than historic hydrology (Group D). Within these categories are sub-categories of primary and secondary indicators based on the reliability of the observation. For wetlands that do not exhibit reliable field wetland hydrology indicators (one primary indicator or two secondary indicators), other evidence of

wetland hydrology may be used with appropriate documentation (*Regional Supplement*, pages 66 and 69; Corps 2010).

Wetland hydrology within the Site is largely driven by the hydraulics of the Lewis and Columbia rivers causing dramatic groundwater fluctuation as well as overbank flooding. These major rivers, along with Gee Creek, surround the Site and control the water table through hyporheic exchange and surface water flooding. The Columbia River maintains high water surface stages from prolonged periods of high flows (days or weeks), which is sufficient to affect wetland hydrologic conditions. During high flow events, Columbia River flow backwaters into both the Lewis River and Gee Creek, establishing long-standing surface water conditions within and surrounding the Site. The rivers are tidal and dam-regulated, resulting in both seasonal and diurnal river fluctuations and inordinately high water during the early-mid growing season when excess water generated from spring snowmelt is released from the Bonneville Dam located upstream from the Site on the Columbia River.

River Stage Data

All Study Areas are affected by river stage; the Lewis River and Gee Creek and Gee Creek – South Backwater Study Areas are directly affected by surface flows from the adjacent rivers; the Farm Fields and Lancaster Lake Study Area is affected by hyporheic exchange, where river levels are expected to correlate to groundwater elevations. Gage data was used with field delineation methods to determine if wetland hydrology was present on potential wetlands. For wetlands that periodically do not exhibit wetland hydrology indicators due to disturbance, drought, or other hydrologic manipulations, it is acceptable to use gage data to determine whether wetland hydrology is present on a potential wetland site (*Regional Supplement*, page 120; Corps 2010). For these Study Areas, river stage data was reviewed to assess groundwater saturation through hyporheic exchange and surface flooding, as indicators of wetland hydrology. River stage varies greatly in timing and elevation, requiring a review of gage data to interpret field observations in an appropriate context. River stage data was not considered to determine a regulatory OHWM for Waters of the United States; OHWM will be determined in consultation with the Corps and Ecology during the mitigation and conservation bank regulatory process.

To determine the rivers' effects on wetland hydrology at the Site, stage data were obtained for the Columbia River from the USGS Vancouver, Washington, gage #14144700 for the period between 1998 and 2013 to represent peak and average water surface elevations that influence wetland hydrology within the Site. This gage is approximately 19.5 river miles upstream of the Site. It was used in lieu of the closer St. Helens gage (located across the Columbia River from the Site) due to large errors observed in the St. Helens dataset (stage height values ranged from -100

to 100 feet) and no available quality assurance ratings. Data from the Vancouver gage was calibrated using standard Corps of Engineers conversions (see following paragraph). Hydrological information was used to support field observations of wetland hydrology and aid in determining upland/wetland boundaries.

Daily mean stage height data for the 15-year time period (1998 to 2013) were analyzed and compared to daily mean stage height data during the high water periods of the growing season and when field work was conducted (April to July 2014). Peak annual stage height data were analyzed according to methods outlined in *Determining the Ordinary High Water Mark on Streams in Washington State* (Olson and Stockdale 2010) to determine water surface elevations that correspond to various flood return intervals. To account for the difference in water surface elevations between the Columbia River at Vancouver and the river adjacent to the Site, *Flood Profiles of Columbia River and Tributaries*, produced by the Corps (revised March 1968), was referenced per direction of the Corps Survey Office (Michael Littel, pers. comm. (email with Brent Haddaway), July 29, 2014). This document provides flood elevation values for the Columbia River from Bonneville Dam to the outer end of the jetties at the mouth of the river. According to the document, there is a 3-foot relative elevation difference between the gage at Vancouver and the gage at St. Helens. Stage height and water surface elevation data adjusted by a factor of -3.0 feet are presented in Figure 2-10 and Table 2-3.

The hydrograph in Figure 2-10 depicts the result of river stage height analysis during the spring freshet portion of the growing season; however, year-round data were considered in analysis. The adjusted 1.01-year peak stage height (corresponding to a 99.9% recurrence interval) was calculated at 11.91 feet NAVD88, and the adjusted 2-year peak stage height (corresponding to a 50% recurrence interval) was calculated at 15.41 feet NAVD88. These two values represent the upper and lower limits of the river stage height that correspond with high flows during the growing season. Methods were borrowed from *Determining the Ordinary High Water Mark on* Streams in Washington State (Olson and Stockdale 2010) to assess river stage that would affect wetland hydrology. Olson and Stockdale (2010) indicate that the elevation corresponding to the 60% recurrence interval (1.6-year) should be used as the upper limit when the range between 1.01-year and 2-year peak stage height is large and that ordinary high water stage height in Washington State should both occur at a 60% recurrence interval and be sustained for 3 to 7 consecutive days. The adjusted 1.6-year peak stage height was calculated at 14.95 feet NAVD88. Visual estimation of the 14.95-foot stage height plotted on a graph of daily mean stage height for the entire 15-year time period indicates that the 14.95 elevation value reasonably fits the criteria of ordinary high water.

Table 2.3 presents selected water surface elevations corresponding with water flood return intervals that are related to wetland hydrology.

Table 2.3. Selected Flood Return Intervals and Corresponding Adjusted Water Surface Elevations for the Lewis River and Gee Creek Study Area

Flood Return Interval	Water Surface Elevation (ft. NAVD88) ^a
2-Year	15.41
1.01-Year	11.91

^a Calculated by applying a correction factor of -3 feet derived from flood profiles developed by the Corps (Corps 1968) to data obtained from USGS Columbia River stream gage #14144700 at Vancouver, WA.

2.2 Field Methods

Formal data plots were established at locations representative of general field conditions (i.e., representative vegetation units or communities), and paired plots were also established to determine the location of upland/wetland boundaries. Plot locations were recorded using a GPS in the field to identify the location and elevation of the wetland and upland boundaries. Wetland, upland, and mosaic boundaries were mapped using topographic elevations (contour lines) in between sample locations where elevation and upland-wetland (or mosaic) conditions correlate. The delineation approach was modified as appropriate for conditions characteristic of each Study Area; methods specific to each Study Area are described at the end of this section. All identified wetlands were classified according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979) and assessed using the *Washington State Wetland Rating System for Western Washington – 2014 Update* (Hruby 2014).

All delineation work was performed by three staff of Cascade Environmental Group, with support provided by the Plas Newydd Conservation Program. Decisions related to method variations, timing of fieldwork, or specific locations of delineation boundaries were made by the report author. Plas Newydd Farm was consulted regularly to compare delineation findings with the land owner's experience and with data being collected to inform Site design. Plas Newydd Conservation Program staff assisted with delineation fieldwork on occasion, to support GPS data collection, soil augering, and other similar assistance.

In all three Study Areas, wetlands were delineated based on correlating the presence of hydrophytic vegetation, hydric soils, and indications of wetland hydrologic conditions.

Topographic data was used to support mapping of wetland, upland, and mosaic polygons after

boundaries were established by either traversing the boundary and recording location data, or by intersecting the vegetation community boundary at regular intervals and recording the community locations along informal transects. Topographic data proved to be an effective mapping tool because wetland and upland indicators occurred at similar elevations consistently, and because the Site is large and vegetation communities are highly interspersed in areas.

Streams and OHWM were not delineated; the boundaries of Waters of the U.S. will be determined through the mitigation and conservation bank regulatory process. Flow period status (e.g., seasonal or perennial) of streams was estimated based on field observations and supporting data including DNR stream typing, historical photos, and existing reports and data. Ditches located within all Study Areas were vegetated and failed to exhibit clear beds and banks, likely due to flat gradients; all ditches were delineated as features within larger wetlands and not delineated as Waters of the U.S.

Ground level color photographs were also taken throughout each Study Area to convey on-the-ground conditions (Appendix C).

In formal data plots, data were collected on vegetation, soil, and hydrology per Corps protocol, described as follows.

2.2.1 Vegetation

Under normal conditions, hydrophytic vegetation is considered prevalent if greater than 50% of the dominant species from each vegetative stratum (tree, shrub, vine, and herbaceous) are assigned a wetland indicator status of obligate (OBL), facultative wetland (FACW), or facultative (FAC) according to the USFWS publication *National Wetland Plant List* (Lichvar 2012). Wetland indicator statuses are defined in Table 2-4 below.

Dominant species were determined by using the "50/20 rule," wherein dominants are the most abundant species that individually or collectively account for more than 50% of the total (absolute) coverage of vegetation in the stratum, plus any other species that by itself accounts for at least 20% of the total (Environmental Laboratory 1987; Corps 2010). Vegetation was sampled within 5-foot radius circular plots for herbaceous and shrub species and 30-foot radius circular plots for tree species. All plant species encountered are listed on the data forms to provide a full picture of the vegetation community; trees and shrubs are excluded from the sample plot if they are not representative of plot conditions due to changes in slope or topographic breaks (Appendix A).

Table 2.4. Wetland Indicator Status Definitions

Category	Definition
Obligate	Species is nearly always a hydrophyte; rarely found in uplands.
Facultative Wetland	Species is usually a hydrophyte; occasionally found in uplands.
Facultative	Species commonly occurs in both wetlands and uplands.
Facultative Upland (FACU)	Species occasionally occurs in wetlands but usually occurs in uplands.
Upland (UPL)	Species nearly always occur in uplands; rarely occurs in wetlands.

Source: Lichvar 2012

Vegetation Community Mapping

Vegetation community mapping was performed throughout the Site to provide greater overall detail on Site vegetation and inform project development. Mapping methodology was based on a qualitative and narrative-based "rapid assessment" characterization and involved sketching vegetation community polygons over aerial and topographical maps, then verifying community extents and composition in the field. Communities were defined by the dominant species in each vegetation stratum as well as their Coward classification.

2.2.2 Soil

Ecologists excavated soil sample pits to a depth of at least 16 inches (when possible) to determine whether soils at the sample location met hydric soil criteria as described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Corps 2010). Soil colors were determined using a Munsell Soil Color Chart (Gretag Macbeth 2000). Hydric soils are soils that formed under conditions of saturation, flooding, or ponding for sufficient duration to develop anaerobic conditions in the upper layers (Environmental Laboratory 1987; Corps 2010).

Although Plas Newydd Farm leases pasture land for cattle grazing, no indicators of significant soil compaction were observed at the Site other than roads. Ecologists encountered no difficulties when digging soil pits, and saw no evidence that soil layers near the surface perched water. Plas Newydd Farm manages cattle operations to minimize overall impacts, including frequent rotation of grazing fields. The generally sandy substrate and frequent surface water inundation also likely minimize the effects of cattle grazing on soil compaction.

2.2.3 Hydrology

Wetland hydrology indicators are used along with indicators of hydric soils and hydrophytic vegetation to determine whether an area is a wetland. Primary indicators of wetland hydrology include inundation (i.e., standing water), saturation in the upper 12 inches of the soil column, high water table, water marks or lines on adjacent stationary objects (e.g., trees), sediment deposits or drift lines on vegetation, oxidized rhizospheres along living roots, and water-stained leaves. Two or more secondary indicators from the following list can also be used to identify wetland hydrology: surface drainage patterns, dry-season water table, shallow aquitard, saturation visible on aerial photography, FAC-neutral test, geomorphic position, or frost-heave hummocks (Environmental Laboratory 1987; Corps 2010).

Groundwater observations were also considered in context of adjacent river stage because of the anticipated (and later, observed) correlation. A study performed to assess restoration feasibility on nearby Lake Rosannah (upstream on the Lewis River) concluded groundwater levels on that property were hyporheic in nature based on comparisons of groundwater monitoring wells and river stage correlation (Interfluve 2013). The Site's location surrounded by large rivers, the coarse texture of the soils observed, and the lack of other significant hydrological inputs suggested the Study Areas presented in this report would have similar, hyporheic driven groundwater conditions. Observations of soil saturation during fieldwork also corresponded with this hypothesis; groundwater was observed in soil pits when river stage reached similar elevations as soil pit elevations. Therefore, direct observation of soil saturation elevations were viewed in the context of river stage, rather than from only precipitation or seasonality.

The Site's floodplain location and hyporheic influence established elevations where river stage data indicated regular groundwater or surface water inundation, As described in Section 2.1.6, river stage data was collected and used to inform wetland delineation when indicators of wetland hydrology were not observed.

2.2.4 Wetland Ratings and Buffers

Western Washington – 2014 Update (Hruby 2014). Wetland rating units include contiguous offsite portions, estimated per methods described in the rating system manual. Appendix B contains the standard wetland rating forms. Wetlands are rated to determine appropriate mitigation ratios and buffer widths. Each wetland is rated based on its significance, sensitivity to disturbance, the difficulty involved in restoring it, and by the assessed level of functions it provides, and assigned a category from I to IV. The categorical assignment of each wetland is based on three major groups of functions that wetlands perform: water quality, hydrological,

and wildlife habitat. Each group is divided into "site potential," "landscape potential," and "value" sections that are scored as "high," "medium," or "low." The scores for each group of functions are summed to produce the overall rating for the wetland. Wetlands are also assessed for qualities that meet criteria defined by the rating system for estuaries, bogs, natural heritage sites, mature forested wetlands, coastal lagoons, or interdunal wetlands (i.e. "special characteristics"). Wetlands with "special characteristics" are rated according to a separate set of criteria, which supersedes the rating result of the functional assessment (refer to the wetland rating forms in Appendix B).

Wetland buffers were determined using Clark County Ordinance No. 2006-05-027 (Chapter 40.450). Buffer widths are determined using a combination of wetland rating results and the land use intensity of the proposed project.

2.2.5 Mapping

Wetland data points and key boundary locations on the Site were recorded using TerraSync software on a Trimble GeoXT GPS unit with sub-meter positional accuracy capability. GPS data were post-processed, resulting in an estimated average positional accuracy of 1 to 3 feet, and exported to a GIS format (ESRI shapefile). Elevation values for each data plot were extracted using the raster-based topographic surface derived from LiDAR data to determine an actual elevation contour and corresponded to upland/wetland boundaries. Contour lines generated from the topographic surface were used to create boundary polygons in between field-recorded boundary locations. To create wetland buffers, ArcGIS Desktop 10.1 buffer functions were applied to wetland boundary lines using the appropriate distance based on the wetland rating result.

2.2.5.1 Use of Topographic Data in Delineation Mapping

Wetland delineation boundaries were determined based on field indicators; ecologists either walked the wetland-upland boundary and recorded its location, or sampled along informal transects that were generally aligned perpendicular to topographic breaks and community boundaries. Topographic data (contour lines) were used to "fill in" gaps between data collection points or informal transects when wetland, upland, and mosaic conditions strongly correlated to elevations (1987 Delineation Manual, Part IV, pages 72-73; Environmental Laboratory 1987). This was used in areas where there was no significant elevation change and the wetland boundary was field verified to make sure no anomalies exist per the 1987 Manual methods. These topographic data were used because of the Site's large size, the high degree of interspersion of wetland and upland communities, and that elevation and delineation boundary

indicators were strongly correlated in each Study Area. Specific applications of topographic data are described in the following sections.

2.2.6 Lewis River and Gee Creek Study Area Methods

Formal wetland delineation data collection for the Lewis River and Gee Creek Study Area was performed on April 23, May 1, May 12, May 22, June 19, and July 18, 2014; additional field visits were made during other times of year to review the initial data under varying conditions. During these visits, informal transects were established perpendicular to the elevation gradient of the recurring scroll bar and swale features of the Study Area. Ecologists walked the transects, identifying locations and elevations of the wetland and upland transitions, and recording the boundary with GPS. Sample plots were recorded at wetland-upland boundaries and in representative areas to document wetland and upland communities (1987 Delineation Manual, Part IV pages 61-73; Environmental Laboratory 1987)

Wetland areas were identified where hydrophytic vegetation were dominant and where primary and/or secondary wetland hydrology indicators could be observed, including consideration of river stage gage data where observable indicators were lacking. Upland conditions were identified in areas lacking hydrophytic vegetation and indicators of wetland hydrology; hydric soil indicators were generally considered unreliable due to regional, manmade changes to the hydrology (e.g. upstream damming), poor correlation to current vegetation communities, and presence of recent alluvial deposits (entisols).

Elevation data collected and plotted in Excel showed strong correlations of wetland conditions in elevations below 15.5 feet NAVD88, and upland conditions at elevations above 17 feet NAVD88; highly interspersed vegetation communities occurred between those elevations. Plot data recorded between those elevation ranges were inconsistent; wetland-upland boundaries changed frequently or were difficult to discern. Based on these findings, methods were adopted to include a wetland-upland mosaic polygon to address the interspersed vegetation communities where the wetland and non-wetland characteristics are too similar to accurately distinguish between the two (*Regional Supplement*, page 124; Corps 2010). Riparian areas, such as those present within the Lewis River and Gee Creek Study Area, are highly variable ecosystems and commonly feature "problematic" hydrophytic vegetation (*Regional Supplement*, page 102; Corps 2010) and hydrology that requires use of supporting ancillary data and secondary characteristics for proper delineation.

2.2.6.1 Mosaic Areas

In these locations where wetland and upland habitats were highly interspersed, wetland-upland "mosaic" polygons were established; generally occurring within 15.5 and 17 feet, NAVD 88. The vegetation communities occurring within this elevation range were reviewed in the field and ecologists attempted to identify characteristics that could be used to consistently delineate wetland and upland polygons; the area was determined to be best delineated as a wetland-upland mosaic for the following reasons:

- All observed soil pits included hydric soil indicators; as stated above, Columbia River flows have been greatly altered by upriver damming, which suggests soil indicators may be relic.
- Vegetation communities were dominated by species that are ubiquitous to the lower Columbia River floodplain that occur in both upland riparian and wetland areas. The vegetation composition shifts without clear patterns; local site conditions (i.e., elevation and landform) did not create distinct vegetation communities within this elevation range.
- All species are common floodplain species, tolerant of periodic inundation. The variable hydrologic conditions in the Columbia River floodplain create periods of inundation interrupted by periods (sometimes multiple years), where prolonged inundation does not occur.
- According to river gage data analyzed as described in previous sections, all areas within
 this elevation range likely experienced shallow soil saturation in 3-6 years out of 10.
 Local conditions, such as variations in soil composition and topography could also affect
 soil saturation duration. Vegetation communities within the 15.5-17 foot elevation range
 may or may not meet wetland hydrology criteria.
- Mapping of specific wetland or upland polygons could not be supported given the
 ambiguity of the indicators. Within the mapped mosaic polygon, distinct wetland or
 upland conditions could be observed over small areas (<1,000 sq feet), but those
 vegetation communities occur as isolated pockets within larger communities where
 wetland and upland boundaries cannot be identified and supported based on consistent
 rationale.

Once the decision was made to delineate a portion of the Study Area as wetland-upland mosaic, ecologists took efforts to estimate proportions (percentages) of wetland to upland within the larger mosaic polygon. Two methods were employed to estimate wetland-upland percentages in

mosaic polygons: informal transects and completing five transects using the "point intercept method" described in *Regional Supplement* to delineate wetland-upland mosaic areas (*Regional Supplement*, page 124; Corps 2010). For informal transects, ecologists walked across mapped mosaic areas and sections of wetland and upland areas were tallied individually. Following each mosaic informal transect;

- Ecologists would compare results and discuss the basis for determining wetland and upland vegetation communities.
- Areas with indistinct conditions were addressed using Best Professional Judgment, including allowing the sampler to split sampled between wetland and upland areas mathematically, rather than identifying distinct boundary locations.
- Estimates were averaged and recorded; results were consistent values across samples.
- Upon averaging of samples, an overall wetland-mosaic ratio was determined as 60% wetland and 40% upland.

Five formal transects were also located in mosaic areas, situated in varying circumstances: between wetland areas on both sides, occurring between upland and wetland vegetation communities, and between two upland communities. The location of the transects were established to address a range of conditions where mosaic polygons had been established, to provide representative sampling. Two emergent and three forested community transects were completed. Point intercept sampling was completed at regular intervals along transects (approximately every 10 feet for the emergent and every 115 feet for the forested) and sampled to determine whether wetland or upland conditions were present at the sample location; the number of plots meeting each criteria were tallied to determine the ratio of wetland and upland area within the mosaic. Representative delineation data plots were established for both upland and wetland conditions in the emergent and forested vegetation communities. Data collected for mosaic sampling transects is provided in Appendix A.

2.2.6.1.1 Problem Area Wetlands

Portions of the Study Area occurring along the shoreline of the Lewis River are underlain by coarse, sandy soils. Hydric soil indicators were less commonly observed in exploratory soil pits and formal data plots in these areas, a characteristic common to vegetated bars with coarse-textured soils occurring above the active channel of streams. This "Vegetated Sand" constitutes a problematic soil for wetland delineation as the deposition of new soil material, low iron content, and low organic-matter content can result in a lack of hydric soil indicators (Corps 2010). These soils often support shallow-rooted, annual weedy plant species, more often observed in uplands

but tolerant of the disturbed, well-drained conditions near active channels, vegetation observed in these areas can also be deceiving to delineators. These soils were considered hydric using the procedure for problematic hydric soils (*Regional Supplement*, page 111; Corps 2010). Therefore, areas with coarse, sandy soils were primarily delineated based on elevations relative to a 1.6-year return interval stage of the Columbia River, and the presence of either hydrophytic vegetation or shallow-rooted, annual weedy species.

2.2.7 Farm Fields and Lancaster Lake Study Area Methods

Formal wetland delineation data collection for the Farm Fields and Lancaster Lake Study Area was performed on May 29, June 19, June 26, July 3, and August 6, 2014; additional field visits were made to review initial data collection under different seasonal conditions, occurring periodically during 2015 and 2016. The focus of delineation work was to identify the wetland-upland boundary in the northern portion of the Study Area, pasture that has been seeded with primarily FAC species, is actively grazed, and features marginal wetland conditions. The wetland-upland boundary in the southern portion of this Study Area, and along the eastern and western margins, occurs on steep slopes where the transition between upland and wetland is easily observed due to abrupt changes in topography and vegetation type. Although this Study Area is significantly modified, ecologists considered conditions suitable for routine wetland delineation methods, other than modifications described in this section. Vegetation communities may have been influenced by past land management, but sufficient naturalized species were observed to identify trends in vegetation driven by Site hydrology.

Supplemental fieldwork was performed in the northern section to determine whether river stage elevations affected Study Area groundwater condition. River stage during fieldwork was below average, so the fieldwork was conducted to test whether river stage data could be used to extrapolate likely soil saturation elevations from an "average year" as an indicator of wetland hydrology. Supplemental fieldwork was timed to correspond with the highest river stage during field work. Thirty hydrological test pits were excavated using a tractor-mounted auger to a 24-inch depth to evaluate groundwater tables over large areas and aid in delineating the wetland boundary (shown in Figure 3-4a). Test pits locations were determined by Cascade Environmental Group ecologists, and were generally focused along the wetland-upland boundary as indicated by vegetation and where groundwater saturation would be encountered based on corresponding river stage. The water table was measured from the soil surface and the auger pit location was recorded using GPS. Pit locations were then plotted onto a LiDAR-generated topographic surface to identify water table elevation across the Study Area.

Pits were established during May 29, 2014 fieldwork when the Columbia River stage was at 13.27 feet NAVD88 (a stage that is exceeded in 7 years out of 10; see Figure 2-10), representing peak stage for the 2014 growing season. Although the method includes significant margins for error, soil saturation was consistently observed at elevation corresponding to river stage at the time of sampling. Of the 30 test pits excavated, 13 were excavated to depths that intersect with river stage elevation at the time of sampling. Of these 13, 12 included soil saturation within 12 inches of river stage elevations; the test pit that did not contain groundwater is located near a ditch which may have influenced the groundwater elevation. Of the 17 test pits that were excavated above elevations that intersected river stage elevations, 16 contained no groundwater; the test pit that contained groundwater is located within a swale which may have influence local conditions. All test pit data collection includes a margin of error due to the use of GPS location, LiDAR elevation data, and river stage based on gage data. Table 2.5 shows the result for each test plot.

Table 2.5. Results of Hydrological Test Pits

Pit ID	Ground Elevation (ft., NAVD88)	Water Depth Below Surface (in)	Status	Pit ID	Ground Elevation (ft., NAVD88)	Water Depth Below Surface (in)	Status
1	17.00	>24	Upland	16	14.76	>24	Wetland
2	15.67	16	Upland	17	16.20	>24	Upland
3	15.03	12	Wetland	18	16.15	>24	Upland
4	15.38	19	Wetland	19	15.86	>24	Upland
5	16.12	>24	Upland	20	14.50	9	Wetland
6	16.30	>24	Upland	21	14.58	12	Wetland
7	16.50	>24	Upland	22	14.27	10	Wetland
8	16.19	>24	Upland	23	14.38	14	Wetland
9	13.81	9	Wetland	24	13.91	9	Wetland
10	14.27	at ground surface	Wetland	25	13.60	4	Wetland
11	15.75	20	Upland	26	18.67	>24	Upland
12	16.29	>24	Upland	27	18.62	>24	Upland
13	15.86	9	Upland	28	17.28	>24	Upland
14	16.99	>24	Upland	29	18.25	>24	Upland
15	15.70	>24	Upland	30	17.77	>24	Upland

Based on the frequency of that river stage, groundwater conditions within the Study Area were assumed to be average to below average when considering direct observation of soil inundation as a wetland hydrology indicator (soil saturation needs to occur in 5 years out of 10; Environmental Laboratory 1987). Therefore, hydrology test pits with inundation levels below 12 inches were included within the wetland where wetland vegetation and hydric soils were supported. The hydrological test pit data, correlated with presence of hydrophytic vegetation, indicated a wetland elevation boundary at approximately 15.5 feet NAVD88, the same as in the Lewis River and Gee Creek Study Area.

The wetland boundary was mapped where indicators of wetland vegetation, soils, and hydrology could be identified, including consideration of the below-average river stage and associated groundwater saturation elevations. The northern and western boundaries were fully traversed, inspected, and the wetland-upland boundary location was recorded. The majority of the eastern and southern boundaries were traversed; the southeast corner of the Site was difficult to fully access due to deep water and thick vegetation. Relatively steep slopes and rocky substrate strongly suggest a consistent wetland boundary occurs across this portion of the Study Area. Plots were not placed in the southeast corner due to the presence of deep water and obvious wetland conditions.

2.2.8 Gee Creek - South Backwater Study Area Methods

Wetland delineation fieldwork for the Gee Creek - South Backwater Study Area was performed on August 31, November 11, and November 18, 2015. The abrupt wetland/upland transition created by the steep-sided basalt outcroppings within the low-lying backwater areas does not support the formation of wetlands at intermediate elevations and creates a clear boundary between upland and wetland. Thus, uplands extend down to a lower elevation in this Study Area than the others on the Site; wetlands were generally found at elevations below 13 feet NAVD88. Because the underlying substrate was often solid basalt and the transition between wetland and upland vegetation communities is obvious and abrupt, vegetation was used almost exclusively to delineate wetlands in this Study Area. Wetland and upland boundaries were identified with paired plots and GPS used to mark boundary locations. Elevations of boundary points were consistent throughout, allowing efficient mapping by adopting contour lines for wetland-upland boundaries (1987 Delineation Manual, Part IV, pages 72-73; Environmental Laboratory 1987). Areas in the northeaster portion of the Study Area have permanently flooded wetlands and were difficult to access; as a result no data plots were placed in this area.

3.1 Lewis River and Gee Creek Study Area

Three wetlands were identified within the Study Area, one large wetland covering much of the floodplain area, and two very small wetlands (<0.5 acre) located along the slope of the Middle Lands. Fifty-three formal data plots were established where data on vegetation, soils, and hydrology were recorded using standard wetland delineation data forms (Appendix A). The mapped wetland areas along with data plot and photo point locations are shown, divided into northern and southern Study Area sections for legibility, in Figures 3-1a and 3-1b; however, acreages reported on maps encompass the entire Study Area. Wetland rating forms are provided in Appendix B and photographs of wetland areas are included in Appendix C.

3.1.1 Wetland 1

Wetland 1 extends along the floodplain area between the Lewis and Columbia Rivers and Gee Creek; 274.55 acres (including 60% wetland portion of mosaic area) occur within the Lewis River and Gee Creek Study Area boundary. Riverine shoreline forms the northern, western, and southern boundaries. A large side-channel or slough associated with the Lewis River bisects the wetland in the northeastern portion, flowing between the Lewis and Columbia Rivers; flow in the slough only reaches the Columbia intermittently during high water periods, whereas the mouth of the slough is connected to the Lewis River most of the year. The wetland is bounded to the east by levee-protected pastureland and steep basalt slopes of the Middle Lands. A large tract of the wetland (Long Meadow) is grazed by cattle at moderate stocking densities using a short-rotation approach; these areas have been historically tilled, fertilized, and seeded with forage grasses.

Wetland 1 receives hydrological inputs primarily from surface water flooding by the Columbia and Lewis rivers and Gee Creek, and via hyporheic groundwater effects—groundwater either directly causes shallow soil saturation and/or affects drainage and infiltration of precipitation. Wetland vegetation, wetland hydrology indicators (including river stage data), and hydric soil indicators were present at similar elevations throughout the Study Area. This indicates that the timing for shallow soil saturation during the growing season is strongly linked to river flows throughout most of the Study Area; the porous sandy soils underlying the area respond rapidly to fluctuating river levels. The habitat water control structures in the southern section of the wetland retain Gee Creek floodwaters, as well as precipitation and hyporheic inputs from the

Columbia River, year-round in three impoundments managed as waterfowl ponds. Water levels in the ponds are regulated by flashboard dams. The water control structures are located at lower elevation ranges and they do not appear to have any effect on the wetland boundary.

Fluvial processes of deposition have formed linear ridges (scroll bars) of sandy loam soil interspersed throughout the wetland which support wetland/upland mosaic and upland vegetation. Wetland occurs below elevation 15.5 feet NAVD 88 and wetland/upland mosaic occurs within the polygons mapped with elevation range of 15.5 to 17 feet NAVD88. The wetland/upland mosaic occurs where vegetation communities observed were primarily a mix of FAC and FACU species typical of riparian areas and soils meet hydric soil criteria. Vegetation communities varied within minor elevation ranges and included common species with broad hydrological tolerance; native species tended to dominate in forested areas, whereas non-native species dominated pasture areas. Review of the Columbia River gage data indicates that the Study Area is subject to a wide range of surface water elevations during the growing season from year to year, suggesting that hydrology within the Study Area is highly variable over time. Annual water levels fluctuate by more than 10 feet in depth, and timing of high water varies by months. Given the variable hydrological conditions and the presence of vegetation with broad hydrological tolerance, delineation of this area as mosaic was determined to be appropriate.

Channels within Wetland 1 have filled in with sediment in some areas, due to existing geomorphic conditions and past dredge spoil deposition. Sediment accumulations have reduced the amount of seasonal open water and hydraulic interaction with adjacent rivers, and affected the vegetation community composition. Neither the sediment accretion or spoils deposition have affected the extent of wetland area, as affected elevations are all well below the 15.5 foot NAVD88 wetland elevation applied to the Study Area.

Wetland 1 includes segments of Gee Creek within the Study Area (to mid-channel) because the creek channel is relatively small compared to the width of Wetland 1 and much of the channel supports wetland vegetation during summer draw-down periods.

Wetland 1 is a riverine hydrogeomorphic (HGM) class and features several Cowardin classifications including broad-leaved deciduous, temporarily and seasonally flooded palustrine forested (PFO1A and PFO1C); broad-leaved deciduous, seasonally flooded palustrine scrubshrub (PSS1C); temporarily and seasonally flooded palustrine emergent (PEMA and PEMC); artificially flooded, diked/impounded palustrine emergent (PEMKh); seasonally flooded-tidal riverine non-persistent emergent (R1EMR); and artificially flooded, diked/impounded, palustrine unconsolidated bottom (PUBKh).

Hydrology

Indicators of wetland hydrology observed during delineation work included the following categories: surface water (A1), high water table (A2), soil saturation (A3), and oxidized rhizospheres along living roots (C3), as well as secondary indicators including drainage patterns (B10), saturation visible on aerial imagery (C9), geomorphic position (D2), and the FAC-neutral test (D5). Secondary hydrological indicators were necessary to appropriately delineate the wetland due to dynamic river-driven groundwater fluctuations and rapidly draining sandy soil conditions; fieldwork occurred outside of peak flow/high water conditions. River stage data was considered in assessment of wetland hydrology throughout the Study Area, and strongly correlated with observed hydrophytic vegetation.

Soil

Soil data collected in wetland data plots meet Corps wetland hydric soil indicator criteria for depleted below dark surface (A11), sandy redox (S5), and depleted matrix (F3) classifications, indicating that iron in the soil has been removed or transformed by processes of reduction and translocation, in some cases below a dark soil surface layer. Dark soil surface layer colors are very dark grayish brown (10 YR 3/2); depleted matrix layer colors are dark gray (10 YR 4/1) to dark grayish brown (10 YR 4/2) to grayish brown (10 YR 5/2) silt with common to many prominent yellow-red redoximorphic features occurring as soft masses and pore linings and common depletions. Soils textures range from sand and sandy loam in sample plots along the riverbanks to silt loam in plots located in landward areas.

All soils observed in wetlands, mosaic areas, and in some upland areas, clearly met hydric soil indicators, despite much of the Study Area soils not being mapped as hydric by NRCS; NWI maps did however identify the entire Study Area as wetland. The reason for incorrect hydric soil mapping is presumed to be due to the Site's floodplain location.

Vegetation

Vegetation communities present within the Study Area are described in detail below. Vegetation communities are defined by their Cowardin class and species dominance in each stratum. They are shown, divided into northern and southern Study Area sections for legibility, in Figures 3-2a and 3-2b.

Non-Persistent Riverine Emergent

This vegetation community occurs in small areas along the shorelines of the Lewis and Columbia rivers. These areas are subject to frequent and severe disturbance from fluvial processes

resulting in scour and deposition as tidal and seasonal floodwaters rise and fall. They have also been used for dredge disposal in the past according to the landowner. Substrates in these areas are sandy and well-drained, and vegetation is only present during low-water periods. Only herbaceous species tolerant of disturbed sandy soil conditions (often weeds) are able to become established. Primary species include hairy cat's ear (*Hypochaeris radicata*; FACU), creeping bentgrass (*Agrostis stolonifera*; FAC), colonial bentgrass (*A. capillaris*; FAC), curly dock (*Rumex crispus*; FAC), sheep sorrel (*R. acetosella*; FACU), common plantain (*Plantago lanceolata*; FACU), white clover (*Trifolium repens*; FAC), rabbitfoot clover (*T. arvense*; UPL), Canada goldenrod (*Solidago canadensis*; FACU), horsetail (*Equisteum arvense*; FAC), and bird's foot trefoil (*Lotus corniculatus*; FAC). Because of rapid drawdown in this area, adaptability to sandy soils and disturbance seems to supersede wetland indicator status as the primary factor for occurrence. This wetland community has a Cowardin classification of R1EMR and covers 16.58 acres.

Bentgrass Palustrine Emergent

This vegetation community is located landward and at a slightly higher elevation range than the non-persistent riverine community and receives somewhat less flooding and scour and deposition, though it is regularly inundated on a seasonal cycle and supports few woody vegetation species. The community is dominated by creeping and colonial bentgrass, with commonly occurring reed canarygrass (*Phalaris arundinacea*; FACW) and creeping Jenny (*Lysimachia nummularia*; FACW) and the occasional presence of opportunistic weed species such as horsetail, curly dock, common plantain, hairy cat's ear, Canada goldenrod, and rabbitfoot clover. This wetland community has a Cowardin classification of PEMC and covers 5.41 acres.

Reed Canarygrass - Slough Sedge Palustrine Emergent

This community, comprised of reed canarygrass and slough sedge (*Carex obnupta*; OBL) interspersed with creeping Jenny, small-flowered bedstraw (*Galium trifidum*; FACW), and common rush (*Juncus effusus*; FACW), occurs within the intermittently connected portion of the slough that connects the Lewis and Columbia rivers. It is seasonally inundated with water which draws down in mid to late spring in most years. This wetland community has a Cowardin classification of PEMC and covers 2.59 acres.

Creeping Spikerush – Reed Canarygrass Palustrine Emergent

This vegetation community is located in a depressional area in the southeastern portion of the Study Area. It is regularly inundated by waters from Gee Creek and a water control system including check-board dams and a rock-fill dam, which retain water in some areas throughout the growing season (Figure 1-2). Reed canarygrass and creeping spikerush (*Eleocharis palustris*; OBL) are the dominant vegetation species, with swamp smartweed (*Persicaria hydropiperoides*;

OBL), lady's thumb (*P. maculosa*; FACW), and water purslane (*Ludwigia palustris*; OBL) occurring occasionally. This wetland community has a Cowardin classification of PEMKh and covers 19.86 acres.

Wapato - Water Purslane - Smartweed Palustrine Emergent

This vegetation community is interspersed within the Creeping Spikerush – Reed Canarygrass Palustrine Emergent community described above, occurring in the wettest areas along the margins of open water and spreads as water levels draw down. It is a characteristically patchy community composed of wapato (*Sagittaria latifolia*; OBL) beds and stands of water purslane, swamp smartweed, and lady's thumb. Reed canarygrass and creeping spikerush also occur within this community, though in less abundance. This wetland community has a Cowardin classification of PEMKh and covers 6.69 acres.

Meadow Foxtail Palustrine Emergent

This vegetation community type occurs in grazed pasture areas inland from the Oregon ashblack cottonwood forests occurring along the banks of the waterways. It is dominated by meadow foxtail (*Alopecurus pratensis;* FAC) and interspersed with other commonly seeded pasture grass species such as creeping bentgrass, colonial bentgrass, perennial ryegrass (*Lolium perenne*; FAC), and velvetgrass (*Holcus lanatus*; FAC), along with common weedy forbs such as creeping Jenny, white clover, bird's foot trefoil, curly dock, and creeping buttercup (*Ranunculus repens*; FAC). Reed canarygrass, swamp smartweed, and water smartweed (*Persicaria amphibia*; OBL) also occasionally occur within this community. This wetland community has a Cowardin classification of PEMC and covers 27.41 acres.

Mixed Willow/Reed Canarygrass Scrub-Shrub

This vegetation community is located along the Lewis River shoreline. It is seasonally flooded and prone to regular scour and deposition. It features sandy and silty substrates colonized by Columbia River willow (*Salix columbiana*; FACW) and Sitka willow (*S. sitchensis*), along with an occasional Douglas' spirea (*Spiraea douglasii*; FACW) and an understory dominated by reed canarygrass interspersed with bentgrass, hairy cat's ear, Canada goldenrod, bird's foot trefoil, and even some shepherd's purse (*Capsella bursa-pastoris*; FACU) and Columbia coreopsis (*Coreopsis tentoria*; FACU). This wetland community has a Cowardin classification of PSS1C and covers 2.70 acres.

Mixed Willow/Creeping Jenny Scrub-Shrub

This vegetation community is located near the convergence of the Lewis and Columbia rivers starting just beyond the shoreline and expanding inland. It is seasonally flooded, though with

apparently lower velocity water, and contains small depressional areas that retain water for a longer period throughout the growing season and a more silt-dominated substrate. The community is comprised of a closed canopy stand of Pacific willow (*Salix lasiandra*; FACW) and Sitka willow with an occasional Oregon ash (*Fraxinus latifolia*; FACW) and a sparse understory of creeping Jenny, slough sedge, creeping bentgrass, and poverty rush (*Juncus tenuis*; FAC). The more disturbed area along the shoreline frontage features sandy deposits and reed canarygrass as a dominant species. This wetland community has a Cowardin classification of PSS1C and covers 3.81 acres.

Pacific Willow/Reed Canarygrass Palustrine Scrub-Shrub

This vegetation community type occurs in the eastern section of the Study Area, draining into Gee Creek. It is situated in a low-lying area that remains saturated-to-inundated throughout most of the growing season due in part to the water control system. It is comprised of an overstory dominated by Pacific willow interspersed rarely with Oregon ash and an understory dominated by reed canarygrass interspersed commonly with small-flowered bedstraw, creeping Jenny, curly dock, and meadow foxtail, and occasionally, creeping spikerush and swamp smartweed. This wetland community has a Cowardin classification of PSS1C and covers 72.03 acres.

Oregon Ash – Black Cottonwood/Reed Canarygrass Palustrine Forest

This vegetation community type occurs along the upper banks of the Lewis and Columbia rivers and Gee Creek, above ordinary high water elevation, expanding landward. It is subject to seasonally fluctuating groundwater levels and overbank flooding on a semi-annual basis. It is comprised of mid-seral to mature Oregon ash and black cottonwood (*Populus balsamifera*; FAC) forest with a dense-to-open shrub layer of Pacific crabapple (*Malus fusca*; FACW), Douglas' spirea, Pacific willow, black hawthorn (*Crataegus douglasii*; FAC), redosier dogwood (*Cornus alba [C. sericea]*; FACW), twinberry (*Lonicera involucrata*; FAC), and Nootka rose (*Rosa nutkana*; FAC) and an herbaceous layer composed primarily of reed canarygrass frequently interspersed with creeping Jenny and small-flowered bedstraw and occasional dense stands of slough sedge. This wetland community has a Cowardin classification of PFO1C and covers 66.41 acres.

Oregon Ash/Reed Canarygrass Palustrine Forest

This community occurs in the southern and eastern sections of the Study Area. It is comprised of an open-to-closed canopy of Oregon ash. Except for areas where the ash is dense, the understory is almost a pure stand of reed canarygrass. Under dense ash canopy, the understory is sparse and features slough sedge and creeping Jenny in addition to reed canarygrass. This wetland community has a Cowardin classification of PFO1C and covers 11.43 acres.

3.1.2 Wetland Mosaic

Areas within the Study Area categorized as "mosaic" occur on narrow ridges and hummocks supporting both hydric and non-hydrophytic vegetation species within a wetland matrix. The ratio of wetland area to upland area is estimated to be 60% wetland/40% upland based on both the formal sample transects and broad informal sampling. Data plots collected in forested areas were 60% wetland when quantified with formal transects. Emergent plots were 100% wetland, but nearly all dominant wetland species were pasture grass species with FAC indicator status, and only 83% of the emergent plots also met prevalence index, indicating emergent plots were less reliable than forested plots. In coordination with the Corps, forested plots were used to estimate the wetland-upland ratio in the mosaic due to its more discernible (and native) vegetation community and correspondence with informal transect estimates. Per the methods in the *Regional Supplement* (pages 123-124; Corps 2010), formal data forms were completed on each transect at representative locations; these and the point intercept data are included with Appendix A.

Wetland/upland mosaic occurs over 50.46 acres within the Study Area (30.28 acres wetland, 20.18 acres upland). Mosaic characteristics were found generally between elevations of 15.5 and 17 feet NAVD88, as mapped by available topographic data. Sample plots in the area featured hydric soils, but varied in dominance and prevalence of hydrophytic vegetation, and did not exhibit wetland hydrology indicators during the dates of fieldwork. Soils meet Corps wetland hydric soil indicator criteria for depleted below dark surface (A11) and depleted matrix (F3). Dark soils surface layers are very dark grayish brown (10 YR 3/2); depleted matrix colors are dark grayish brown (10 YR 4/2) to grayish brown (10 YR 5/2) to gray (10 YR 5/1) and feature common to many yellow-red redoximorphic concentrations and depletions. Soil textures range from silt loam to sandy loam to loamy sand. Cowardin classifications include temporarily flooded palustrine emergent (PEMA) and broad-leaved deciduous, temporarily flooded palustrine forested (PFO1A). Vegetation communities include the following habitat types:

Oregon Ash – Black Cottonwood/Snowberry Forest

This vegetation community is similar to the palustrine forested wetland community described above except it features some western redcedar (*Thuja plicata*; FAC) interspersed within the canopy and snowberry (*Symphoricarpos albus*; FACU), Himalayan blackberry (*Rubus armeniacus*; FACU), and blackcap raspberry (*R. leucodermis*; FACU) as common or subdominant components in the shrub layer. Cleavers (*Galium aparine*; FACU), stinging nettle (*Urtica dioica*; FAC), and Dewey's sedge (*Carex deweyana*; FAC) occur in the herb layer. High groundwater levels and

overbank flooding may occur in some years. This community has a Cowardin classification of PFO1A and covers 37.89 acres.

Meadow Foxtail Pasture

This vegetation community is similar to the reed canarygrass – meadow foxtail palustrine emergent wetland community, but it does not feature reed canarygrass as a dominant species. Instead, there is a higher incidence of sweet vernal grass (*Anthoxanthum odoratum*; FACU), Canada thistle (*Cirsium arvense*; FAC), bull thistle (*C. vulgare*; FACU), white clover, and cutleaf geranium (*Geranium dissectum*; NL), and weedy upland species such as oxeye daisy (*Leucanthmum vulgare*; FACU), dandelion (*Taraxacum officinale*; FACU), self-heal (*Prunella vulgaris*; FACU), curly dock, common plantain, and hairy cat's ear are present. This community has a Cowardin classification of PFO1A and covers 12.57 acres.

3.1.3 Wetland 4

Wetland 4 is a relatively small (0.04 acres) wetland located along the lower western slope of the Middle Lands near the gravel access road leading to the waterfowl ponds of Wetland 1. It is situated in an area where the typically steep slope flattens out enough to collect run-off briefly from the rocky slopes above. It supports only marginal wetland characteristics and may not feature wetland hydrology in all years. The wetland is bound by forested uplands; an access road runs near the southwestern boundary. Wetland 4 is categorized as a slope HGM class and consists of a PFO1B (saturated) Cowardin class.

Hydrology

Hydrology within Wetland 4 appears to be largely precipitation driven, though the water table may nearly reach the ground surface during times of high river stage. The wetland is likely dry throughout much of the growing season. Only secondary hydrological indicators were observed within Wetland 5 at the time of fieldwork; they included geomorphic position (D2) and FACneutral test (D5).

Soils

Soil data in Wetland 4 meet Corps hydric soil indicator criteria for redox dark surface (F3). Soil matrix colors ranged from very dark grayish brown (10 YR 3/2) in the upper layers to black (10 YR 2/1) in the lower layer and featured many prominent yellow-red redoximorphic concentrations and depletions occurring as soft masses. Soil texture is silt loam.

Vegetation

Wetland 4 is vegetated by open Oregon ash forest with an understory of Nootka rose, black hawthorn, and reed canarygrass. Trailing blackberry (*Rubus ursinus*; FACU) spreads into the wetland from adjacent uplands.

3.1.4 Wetland 5

Wetland 5 is characteristically very similar to Wetland 4, located just to the southeast of it along the same access road. It is slightly larger (0.22 acres), but also situated where the Middle Lands slope flattens out and likely does not feature wetland hydrology in all years. The wetland is bound by forested uplands. Wetland 5 is categorized as a slope HGM class and consists of a PFO1B Cowardin class.

Hydrology

Like Wetland 4, hydrology within Wetland 5 appears to be largely precipitation driven, though the water table may nearly reach the ground surface during times of high river stage. The wetland is likely dry throughout much of the growing season. Only secondary hydrological indicators including geomorphic position and FAC-neutral test were observed within Wetland 5.

Soils

Soil data in Wetland 5 meet Corps hydric soil indicator criteria for redox dark surface (F3). Soil matrix colors ranged from very dark gray (10 YR 3/1) in the upper layers to black (10 YR 2/1) in the lower layer and featured many prominent yellow-red redoximorphic concentrations and depletions occurring as soft masses. Soil texture is silt loam.

Vegetation

Wetland 5 is vegetated by open Oregon ash forest with an understory of spirea and reed canarygrass.

3.1.5 Wetland Rating Category, Functions, and Buffers

Wetland 1 was rated as three separate units (1a, 1b, and 1c; Figure 3-3). The wetland was divided into rating units based on differences in hydrological conditions, specifically:

• A topographic divide separates rating units: Unit 1a drains to the Columbia and Lewis rivers; Units 1b and 1c drain to Gee Creek.

• Unit 1a is free of impoundments other than fill placement within sloughs; Unit 1b includes water control structures for purposes of waterfowl habitat; Unit 1c is free of impoundments, separated from Unit 1b by a rockfill and flashboard dams.

Each unit rated as Category I based the presence of "special characteristics," including mature forest habitats and features of a natural heritage wetland. Units 1a and 1b also rated as Category I based on their functions alone; Unit 1c rated as a Category II based on its functions. Unit 1a was determined to merit a buffer width of 150 feet due to a high habitat functions rating; Units 1b and 1c merited a buffer width of 130 feet based on a lower habitat functions rating.

Wetlands 4 and 5 each rated as Category III wetlands. The standard buffer widths for Wetlands 4 and 5 was determined to be 75 feet; however, in the case that the corresponding buffer width results in a buffer area greater than two times the area of the wetland, the buffer may be reduced provided that the buffer width is not less than the water quality buffer width for low intensity uses per Section 40.450.030(E)(4)(c) of the County code. Using this guidance, the buffer width for Wetlands 4 and 5 has been reduced from 75 feet to 40 feet. Rating results for all wetlands are shown in Table 3.1.

Table 3.1. Wetland Ratings for Wetland 1, 4, and 5

Wetland Unit	Water Quality	Hydrology	Habitat	Total Function Score	Final Rating	Clark County Buffer Width - Low Intensity Land Use
1a	9	6	9	24	I	150 feet
1b	9	8	8	25	I	130 feet
1c	7	7	8	22	I	130 feet
4	5	6	7	18	III	40 feet
5	6	6	7	19	III	40 feet

Wetland 1 rating units were determined to be riverine HGM classes. Units 1a and 1b scored "high" on water quality functions based on characteristics including surface depressions that cover one-half to three-quarters of the wetland area and the presence of trees and shrubs covering more than two-thirds of the area. The presence of grazing within the units and their location within a basin where human activities have impacted water quality, confer landscape potential and site value. Landscape and site potential of Unit 1c was limited somewhat by a lack

of surface depressions and absence of adjacent pollution-generating land uses. All three units scored "medium" to "medium-high" on hydrologic function. Each unit has site potential and value conferred by high forest and shrub cover which slow down water velocities during floods and are located upstream of flood-prone areas; however, they have a limited capacity for overbank floodwater storage based on the ratio of wetland to stream width (averaging the Columbia River, Lewis River, and Gee Creek together). With regard to habitat function, all units scored "high" to "medium-high". Each unit features diverse vegetation structure, multiple hydroperiods, and high dispersion of habitats, as well as special habitat features including large, downed, woody debris, standing snags, undercut banks and steep banks in adjacent waterways (for wildlife cover and denning), and thin-stemmed persistent vegetation in areas of seasonal inundation (structures for egg-laying amphibians), all of which provide habitat potential. They also feature large relatively undisturbed buffers and intact corridors conferring opportunity for habitat. Unit 1a rates slightly better in regards to habitat because it contains more habitat features than Units 1b or 1c (standing snags, greater species diversity, and more vegetation classes). All three units feature "special characteristics" of natural heritage wetland and mature forest. The natural heritage wetland characteristic is based on the location of the units within a section/township/range which contains a natural heritage wetland (accessed from the DNR Washington Natural Heritage Program [WNHP] website

http://www1.dnr.wa.gov/nhp/refdesk/datasearch/index.html) and the WNHP-mapped presence of water howellia (*Howellia aquatilis*), a state threatened plant species. The mature forest characteristic is based on the presence of at least 1 acre of forest where the trees are over 80 years old.

Wetland 4 and 5 are determined to be slope HGM classes. They both rated fair with regard to water quality and hydrologic function based on their flat slopes, presence of dense, uncut vegetation and location in a basin with 303(d) listed streams and flooding problems; however the surrounding low-intensity land use does not confer much landscape potential. Habitat site potential for the wetlands is limited by the presence of few vegetation structures, hydroperiods or special habitat features. Habitat landscape potential and value rate high, however, due to the intact buffers, good connectivity to other habitats and presence of WDFW priority habitats and species. Both wetlands are located within a section/township/range which contains a natural heritage wetland (accessed from the DNR WHNP website); however, they do not feature any mapped presence of state-listed threatened or endangered plant species, so they do not qualify as natural heritage wetlands.

3.1.6 Other Waters

Other waters within and adjacent to the Lewis River and Gee Creek Study Area include the Columbia River, Lewis River, and Gee Creek (Cowardin class: riverine-tidal unconsolidated bottom, permanently- tidally flooded [R1UBV]). Surface flows and hyporheic influence from these rivers appear to be the primary source of hydrological inputs to Study Area wetlands. OHWM for these waters was not considered as a part of this study as it varies over time due to the wide range of river flow volumes; OHWM will be determined through the mitigation and conservation bank regulatory process.

The Columbia River is the largest river in the Pacific Northwest with a basin area of 258,000 square miles that includes portions of Washington, Idaho, Montana, Nevada, and British Columbia, Canada, and drains into the Pacific Ocean. It is a major commerce route between for communities in Oregon and Washington and foreign ports. The Columbia mainstem is tidally influenced up to and beyond the reach adjacent to the Study Area. The Columbia River has measurable salinity that varies in extent and concentration seasonally, and the tidal-freshwater hydrologic regime influences the lower 7-9 miles of all tributaries depending upon the location and geomorphology along the river gradient. The Columbia River basin supports Chinook salmon, coho salmon, sockeye salmon, bull trout, and steelhead trout, as well as several other listed anadromous fish species such as Pacific eulachon and Pacific and Western brook lamprey. The Site is located approximately 60 miles downstream of the Bonneville Dam, the downstreammost of 22 major mainstem Columbia and Snake River major hydroelectric dams (there are 56 dams exclusively for hydropower in the basin alone), which greatly affect flow volume and discharge, in addition to sediment transport and other large-scale watershed processes. Flows in the Columbia at the Study Area range widely, fluctuating over 15 feet in stage height annually. Backwaters from the Columbia flows and tides affect the other waters in the Study Area: Lewis River and Gee Creek. The river is designated as a Traditionally Navigable Water (TNW) according to the Navigable Waters of the U.S. in Washington State (Corps 2008) regulated under federal jurisdiction and is designated as a Type S: Shoreline of the State regulated under Washington State jurisdiction. It is a major transportation corridor and is dredged to maintain channel depth.

The Lewis River is a major glacier-fed tributary with headwaters on Mt. St. Helens and Mt. Adams that stretches 93 stream miles before flowing into the Columbia River at RM 87 adjacent to the Study Area. The basin area covers approximately 1,050 square miles. The river is tidally influenced in the lower 8-12 miles, and supports multiple key stocks of anadromous and resident salmonids. It is also regulated by a series of three hydroelectric dams. The Lewis River is also designated as a TNW and a Type S water.

Gee Creek is a direct tributary to the Columbia River with a drainage basin of 13.6 square miles. It is perennial and supports native fish habitat including rearing and spawning habitat for coho salmon upstream of the project area, and rearing habitat for all species of salmonids within the Study Area. It is also considered a Type S stream, though not a TNW. Sedimentation has occurred within the Gee Creek Channel, both from Columbia River backwater that carries and deposits sand and silt, and changes in land use in the upper basin that has contributed to increased fine sediment load. Due to a dramatic decrease in stream gradient as the creek flows off the upland terrace and onto the Columbia River floodplain, a natural depositional reach is created through the Study Area. Sand shoaling and backwater deposits near the confluence with the Columbia prevent surface waters from Gee Creek from flowing into the Columbia River during extreme low-flow and low-tide conditions in some years. Because Gee Creek flows directly into a TNW (the Columbia River), and does contain relatively permanent flow, it is also regulated under federal jurisdiction. The Study Area extends to the centerline of the Gee Creek channel, which becomes vegetated during times of low water and the channel was therefore included as a feature of Wetland 1.

3.1.7 Uplands

Uplands within the Study Area consist of grass-dominated pasture, and deciduous and mixed conifer/deciduous forest. Upland areas are generally above elevations of 17 feet NAVD88 and cover 97.91 acres within the Study Area (including upland portions of mosaic areas). Upland areas are not subject to overbank flooding or groundwater inundation except for extreme high water events, but fluctuating groundwater levels driven by the proximity to large water bodies may affect soil and vegetation characteristics.

Soils are very dark gray (10 YR 3/1) to dark grayish brown (10 YR 3/2) to dark brown (10 YR 3/3) in color and, in some cases, feature depleted matrices below a dark soil surface layer, meeting Corps wetland hydric soil indicator criteria (A11). Depleted matrix (F3) colors are dark grayish brown (10 YR 4/2) to grayish brown (10 YR 5/2) and feature common to many yellow-red redoximorphic concentrations. Soil textures range from silt loam to sandy loam to sand. Areas with hydric soil indicators were determined to be uplands based on the presence of upland vegetation and lack of wetland hydrology indicators.

Vegetation includes the following habitat types (shown in Figures 3-2a and 3-2b):

Oregon Ash – Black Cottonwood /Snowberry Forest

This community type features an upland component as well as mosaic and wetland ones. The upland counterpart is very similar to the mosaic forest community except that it features

snowberry, Himalayan blackberry and trailing blackberry (*R. ursinus*; FACU), and as dominant species, and sweet cicely (*Osmorhiza berteroi*; FACU), ground ivy (*Glechoma hederacea*; FACU), and burdock (*Arctium minus*; UPL) are present. It also features less cover of typical wetland shrubs such as twinberry, redosier dogwood, and Nootka rose. The presence of an Oregon ashdominated overstory, a tree with a FACW wetland indicator status, may be attributed to the deeply-penetrating root systems of trees which enable them to take advantage of the relatively high water table that is present during much of the year due to the proximity of large water bodies. This community covers 31.94 acres.

Oregon Ash - Black Cottonwood /Stinging Nettle Forest

This upland forest community is similar to the one described above, except it features an herb layer composed largely of stinging nettle. Vegetation clearing has taken place in this area for vehicle access to the Lewis River. It covers an area of 4.81 acres in the northeastern section of the study Site.

Oregon Oak/Indian Plum - Himalayan Blackberry Upland Forest

This upland forest community occurs on small "islands" of weathered basalt outcroppings in the southeastern section of the Study Area as well as the lower slope of the Middle Lands along the eastern margin. These areas feature Olympic very stony clay loam soils that support a mature Oregon oak (*Quercus garryana*; FACU) overstory with an understory of Indian plum (*Oemeleria cerasiformis*; FACU), Himalayan blackberry, and snowberry. This community covers 1.64 acres.

Oregon Oak/Douglas Fir - Snowberry Upland Forest

This upland forest community occurs along the slopes of the Middle Lands and covers 32.21 acres. It includes an overstory of Oregon Oak interspersed with Douglas fir, Oregon ash, and bigleaf maple with a well-developed shrub layer of snowberry, Himalayan blackberry, blackcap raspberry, serviceberry (*Amelanchier alnifolia*; FACU), Oregon grape (*Mahonia nervosa*; NOL), oceanspray (*Holodiscus discolor*; FACU), oval-leaved viburnum (*Viburnum ellipticum*; NOL), trailing blackberry, and poison oak (*Toxicodendron diversilobum*; NOL). The herbaceous layer commonly features western swordfern, cleavers, herb-Robert (*Geranium robertianum*; NOL), miner's lettuce, oak fern (*Gymnocarpium dryopteris*; NOL), St. John's wort (*Hypericum perforatum*; FACU), sweet vernal grass, and orchardgrass.

Meadow Foxtail Pasture

Upland pasture areas are of similar vegetation composition as mosaic pasture areas. However, there is no reed canarygrass present, and there is a higher incidence of weedy upland species, including tansy ragwort (*Senecio jacobaea*; FACU). This community covers 4.18 acres.

Weedy – Ruderal Herbaceous Vegetation (Levee)

The vegetation community colonizing the levee along the northeastern boundary of the Study Area, as well as the rock-fill dams in the southern section, is comprised of pasture grasses with a high occurrence of herbaceous weeds and pioneer species as well as Himalayan blackberry. Dominant grasses include colonial bentgrass, velvetgrass, perennial ryegrass, and sweet vernal grass. Weedy forbs include wild carrot (*Daucus carota*; FACU), common plantain, St. John's wort (*Hypericum perforatum*; FACU), horsetail, hairy cat's ear, tansy ragwort, wild chamomile (*Matricaria ricutita*; UPL), common mullein (*Verbascum thapsus*; UPL), Canada thistle, and bull thistle. This community covers 2.95 acres.

3.2 Farm Fields and Lancaster Lake Study Area

One wetland was identified within the Study Area, covering much of the floodplain area, and 39 formal data plots were established where data on vegetation, soils, and hydrology were recorded using standard wetland delineation data forms (Appendix A). The mapped wetland areas along with data plot and photo point locations are shown, divided into northern and southern Study Area sections for legibility, in Figures 3-4a and 3-4b; however, acreages reported on maps encompass the entire Study Area. Wetland rating forms are provided in Appendix B and photographs of wetland areas are included in Appendix C.

3.2.1 Wetland 2

Wetland 2 extends along the levee-protected floodplain area between the Lewis River and Gee Creek; 252.39 acres occur within the Farm Fields and Lancaster Lake Study Area boundary. The wetland is bounded on the north by levee protected upland pasture, on the east by upland forest and a railway embankment, on the west by the Middle Lands, and on the south by a levee associated with Gee Creek that also serves as an access road.

The wetland is fenced and cross-fenced off into five or more fields that are grazed by cattle at moderate stocking densities and short-rotation timeframes; these areas have been historically tilled, fertilized, and seeded with forage grasses. A gravel access road bisects the wetland in the northern section.

The wetland slopes gradually from north to south, with drainage facilitated by a network of ditches, totaling 2.94 miles. Ditches are flat-bottomed and vegetated; surface water was observed in the lower parts of ditches at the southern end of the Study Area in August. The northern end of the wetland is drier and supports marginal wetland characteristics. Subsequently, it can be grazed earlier in the growing season and sustains more disturbance than wetter areas. Vegetation present in the northern end is primarily seeded FAC grasses, with very few native wetland species present. Wetland 2 retains progressively more water throughout the growing season as it proceeds south, terminating at the shoreline of Lancaster Lake. The size of Lancaster Lake varies seasonally and interannually, from 8 to 24 acres. At the southern end, the wetland supports a predominantly FACW vegetation community that includes several native wetland species, with areas of forested and shrub-scrub wetland. Lancaster Lake is formed by the impoundment of surface inputs and groundwater/hyporheic inputs by the levee; a flapper valve tidegate at the levee regulates the water level in the lake. Seasonal flooding of the southern section of the Study Area occurs as the lake backwaters into ditches and as sheetflow across the wetland surface. A small drainage off the basalt hillslope along the southwestern boundary also flows seasonally into the wetland.

Historically, Wetland 2 functioned as a riverine wetland with surface water flooding occurring primarily from the south through the Narrows via Gee Creek and backwater and tidal influence from the Columbia River. However, the levee at this location prevents surface connectivity with the backwater area of Gee Creek, prohibiting tidal fluctuations and all but the most extreme (100+ year) flood events from affecting the Study Area. The constructed levee along the Lewis River occurs in a location where a natural floodplain berm (common along rivers and especially tidal channels) had existed, but the natural levee was also likely overtopped during 50 to 100-year flood events. Upstream damming and onsite levee construction have prevented surface water flooding by the Lewis River except during major (100-year) flood events such as occurred in 1948, 1956, 1964 and 1996. The delineated wetland boundary for Wetland 2 corresponds to the same elevation as the wetland boundary for Wetland 1, likely due to hyporheic groundwater effects.

Wetland 2 features both slope and lacustrine HGM classes and several Cowardin classifications including partially drained/ditched (special modifier 'd') PFO1Ad, PSS1Cd, PEMAd , PEMCd and palustrine persistent emergent, semipermanently flooded (PEM1Fd); and excavated (special modifier 'x') PEMCx and PEM1Fx .

Hydrology

Wetland hydrology was determined be present during wetland delineation using the following indicators: (A1), high water table (A2), soil saturation (A3), inundation visible on aerial imagery (B7), and oxidized rhizospheres along living roots (C3), as well as secondary indicators including saturation visible on aerial imagery (C9), geomorphic position (D2), and the FAC-neutral test (D5). Secondary hydrological indicators were necessarily applicable during mid-summer delineation field work due to seasonally dry conditions and low surface and groundwater levels.

Soil

Soil data collected in Wetland 2 data plots meet Corps hydric soil indicator criteria for depleted below dark surface (A11), loamy gleyed matrix (F2), and depleted matrix (F3) indicating that iron in the soil has been removed or transformed by processes of reduction and translocation, in some cases below a dark soil surface layer. Dark soil surface layer colors are very dark grayish brown (10 YR 3/2), depleted matrix layer colors are dark gray (10 YR 4/1) to dark grayish brown (10 YR 4/2) to grayish brown (10 YR 5/2) to gray (10 YR 6/1), and gleyed matrix colors are dark gray (4/N) with common to many prominent yellow-red redoximorphic features occurring as soft masses and pore linings and common to many depletions. Soil textures range from silt loam to sandy loam with sand occurring in plots in the northwestern section of the Study Area at the location of an historical levee breach event.

Vegetation

Vegetation communities present within Wetland 2 are described in detail below. Vegetation communities are shown, divided into northern and southern Study Area sections for legibility, in Figures 3-5a and 3-5b.

Colonial Bentgrass - Velvetgrass Palustrine Emergent

This vegetation community occurs over a large area in upper elevations in the northern section of the Farm Fields and Lancaster Lake Study Area. It is a marginal wetland area that may not support wetland hydrology in drier years and most all of the species present have a FAC wetland indicator status. The area has been tilled and seeded with pasture grasses within the past three years and it is grazed by cattle at moderate stocking densities. It is also mowed regularly. Dominant species include colonial bentgrass and velvetgrass interspersed with tall fescue (*Festuca arundinacea*; FAC), perennial ryegrass, meadow foxtail, white clover, bird's foot trefoil, creeping buttercup, and water smartweed. This wetland community has a Cowardin classification of PEMAd and covers 47.04 acres.

Colonial Bentgrass - Water Foxtail Palustrine Emergent

This vegetation community covers a small patch in the southern section of the Study Area, just north of the willow dominated area. This community is subject to seasonal inundation, but is dry by mid growing season. The area appears to be lightly grazed at moderate stocking densities and may be mown approximately once a year. It is dominated by colonial bentgrass, water foxtail (*Alopecurus geniculatus*; OBL), wild mint (*Mentha arvensis*; FACW), and white clover with curly dock, bird's foot trefoil, water smartweed, and reed canarygrass occurring commonly. This wetland community has a Cowardin classification of PEMCd and covers 3.81 acres. It is unknown how this small area developed its distinctive vegetation community.

Tall Fescue - Velvetgrass Palustrine Emergent

This vegetation community covers 5.40 acres of the Lower and Upper Front Fields (refer to Figure 1-3) in the northern section of the Study Area, interspersed with upland pasture communities. It is subjected to grazing by cattle at moderate stocking densities, has been tilled and seeded within the past three years, and is regularly mown. Similar to the Colonial Bentgrass – Velvetgrass Palustrine Emergent vegetation community, it supports marginal wetland characteristics: It dries out early in the growing season and may not feature wetland hydrology in all years. The community is dominated by tall fescue and velvet grass, interspersed with perennial ryegrass and colonial bentgrass. Weedy forbs such as common plantain, white clover, creeping buttercup, and hairy cat's ear occur commonly. This wetland community has a Cowardin classification of PEMAd.

Common Rush – Reed Canarygrass Palustrine Emergent

This vegetation community covers a large portion (41.81 acres) in the central section of the Study Area. It is subject to seasonal flooding, drying out by mid-growing season. Common rush and reed canarygrass are dominant species in the community, with creeping Jenny forming thick mats along the soil surface. Water smartweed is common and wild mint, white clover, slough sedge, and creeping spikerush occur occasionally. This wetland community appears to be lightly grazed at moderate stocking densities and may be mown approximately once a year. It has a Cowardin classification of PEMCd.

Common Rush - Velvetgrass Palustrine Emergent

This vegetation community covers much of Lake Field. It has a similar community composition as the Common Rush – Reed Canarygrass Palustrine Emergent community, but it receives somewhat less inundation, so species composition tips toward pasture grasses. It features common rush and velvetgrass as dominant species with commonly occurring colonial bentgrass,

creeping bentgrass, meadow foxtail, reed canarygrass, bird's foot trefoil, and water smartweed. This wetland community appears to be grazed at moderate stocking densities and mown regularly. It has a Cowardin classification of PEMAd and covers 24.81 acres.

Creeping Spikerush - Reed Canarygrass Palustrine Emergent

This is a small, yet distinctive vegetation community occurring over a small area just north of the willow scrub-shrub area in the southern section of the Study Area. It is seasonally inundated and remains saturated throughout much of the growing season, likely due to a small, semi-permanently flooded depression located near the convergence of several ditches that retain backwater from Lancaster Lake. Reed canarygrass is a dominant species, but it has not outcompeted creeping spikerush, which occurs as a co-dominant in this community. It also features an array of wetland forbs interspersed within the understory including wild mint, creeping Jenny, water smartweed, American brooklime (*Veronica americana*; OBL), and rarely, common silverweed (*Argentina anserina*; OBL). This wetland community appears to be lightly grazed at moderate stocking densities and may be mown approximately once a year. It has a Cowardin classification of PEMCd and covers 1.86 acres.

Reed Canarygrass - Smartweed Palustrine Emergent

This vegetation community occurs along the shoreline of Lancaster Lake. It is subject to fluctuating water levels, but the dike at Gee Creek retains water such that the area remains saturated to inundated throughout the growing season. The community is dominated by reed canarygrass interspersed with lady's thumb and swamp smartweed. This wetland community has a Cowardin classification of PEMKh and covers 17.83 acres.

Wapato - Smartweed Palustrine Emergent

This vegetation community is interspersed within the Reed Canarygrass – Smartweed Palustrine Emergent community described above, occurring in the wettest areas along the margins of open water and spreads as the water level draws down. It is a characteristically patchy community composed of wapato beds and stands of swamp smartweed and lady's thumb. Reed canarygrass occurs within this community, though in less abundance. This wetland community has a Cowardin classification of PEMKh and covers 18.53 acres.

Reed Canarygrass Palustrine Emergent

This vegetation community occurs along the eastern and western boundaries of the Study Area, and within the ditches. It is generally consists of a very dense, monotypic stand of reed canarygrass. Velvetgrass, colonial bentgrass, creeping Jenny, common rush, or bird's foot trefoil may occur occasionally to infrequently in some areas. Cattail (*Typha latifolia*; OBL) is observed

in the deeper, wetter ditches. These ditches and peripheral areas are fenced off from cattle and are not grazed, but they are occasionally mowed. Hydrology within this community ranges from temporarily flooded/saturated (PEMA) in the north to semipermanently flooded (PEMKh) in the case of the southern end of the ditches. This wetland community covers 19.77 acres.

Pacific Willow/Reed Canarygrass Palustrine Scrub-Shrub

This vegetation community type occurs over a large area in the southern section of the Study Area, north of Lancaster Lake; in two small patches in the northeastern section of the Study Area; and in a linear stand in the northwestern section. This community remains saturated-to-inundated throughout most of the growing season: in the north due to water retained in ditches and in the south due to backwater from the lake. It is composed of an overstory of Pacific willow and an understory of reed canarygrass with occasionally occurring water smartweed and creeping Jenny. This wetland community is subject to some impact by livestock grazing, primarily in the occurrence located in the northeastern section of the Study Area. It has a Cowardin classification of PSS1Cd and covers 39.49 acres of the Study Area.

Oregon Ash – Black Cottonwood/Reed Canarygrass Palustrine Forest

This vegetation community type occurs along a ditch and Lancaster Lake on the southeastern boundary of the Study Area and in a small stand along another ditch in the northeastern section. It is subject to seasonally fluctuating groundwater levels, with some overbank flooding, especially where it occurs near the shoreline of Lancaster Lake. It consists of mid-seral to mature Oregon ash-black cottonwood forest with a dense-to-open shrub layer of Pacific crabapple, Douglas' spiraea, Pacific willow, black hawthorn, redosier dogwood, twinberry, and Nootka rose, and an herbaceous layer composed primarily of reed canarygrass frequently interspersed with creeping Jenny and small-flowered bedstraw. This wetland community has a Cowardin classification of PFO1A and covers 8.34 acres.

3.2.2 Wetland Rating Category, Functions, and Buffers

Wetland 2 was rated as three separate units (2a, 2b, 2c; Figure 3-6). The wetland was divided into rating units based on differences in hydrological conditions, specifically:

- Ditches create differences in hydrological regime, separating rating units.
- Unit 2c is affected by a large impoundment of Gee Creek (Lancaster Lake), resulting in a different HGM class for this unit.

Units 2a and 2b rate as Category III wetlands and Unit 2c rates as a Category II wetland. The ratings assess hydrological, water quality, and habitat function based on a systematic assessment process. Rating results for all units of Wetland 2 are shown in Table 3.2.

Table 3.2. Wetland Rating for Wetland 2

Wetland Unit	Water Quality	Hydrology	Habitat	Total Function Score	Final Rating	Clark County Buffer Width - Low Intensity Land Use
2a	5	5	7	17	III	75 feet
2b	5	5	7	17	III	75 feet
2c	8	4	8	20	II	130 feet

Units 2a and 2b are determined to be slope HGM classes and scored identically. With regard to water quality functions, both units scored "low" on site potential due to a lack of dense, uncut herbaceous vegetation (wetlands are grazed and mown); however, the presence of grazing within the units and their location within a basin where human activities have impacted water quality confer landscape potential and site value. In regard to hydrological functions, site and landscape potential was "low" due to vegetation conditions and the lack of excess surface water runoff draining into the wetlands, though site value is present due to flood-prone areas downstream. Habitat functions rated moderately well: site potential is limited by a lack of diversity in vegetation structure, hydroperiods, species richness, and special habitat features, but connectivity to undisturbed habitat and their inclusion in a Shoreline Master Plan (Clark County 2012) confer landscape potential and site value.

Unit 2c was determined to be a lake-fringe HGM class. It scored well in regard to water quality functions based on the average width of vegetation along the shore of Lancaster Lake (more than 33 feet wide) and the presence of grazing within the wetland. Hydrological functions scored low due to the lack of power boat use and low fetch distance of the lake, and absence of human structures or resources within 25 feet of the shoreline, though the wetland has potential to reduce shoreline erosion with the presence scrub-shrub lakeshore vegetation. Finally, habitat functions scored moderately well due to some diversity in vegetation structure and plant species and special habitat features including the presence of large, woody debris, standing snags, and thin-stemmed persistent vegetation, all of which provide habitat potential. Reasonably intact buffers and good connectivity to relatively undisturbed areas lends high landscape potential. It should be noted that the wetland's HGM class limits the maximum possible score for wetland functions.

The wetland units are all located within a section/township/range, which contains a natural heritage wetland (accessed from the DNR WHNP website); however, they do not feature any mapped presence of state-listed threatened or endangered plant species, so they do not qualify as natural heritage wetlands.

3.2.3 Uplands

Uplands within the Study Area consist of grass-dominated pasture and deciduous forest. Upland areas are generally above elevations of 15.5 feet NAVD88 and cover 105.75 acres within the Study Area. Upland areas are not subject to overbank flooding or groundwater inundation except for extreme high water events, but fluctuating groundwater levels driven by the proximity to large water bodies may affect soil and vegetation characteristics.

Soils are very dark gray (10 YR 3/1) to dark grayish brown (10 YR 3/2) in color and, in some cases, feature depleted matrices, meeting Corps wetland hydric soil indicator criteria for depleted below dark surface (A11) or depleted matrix (F3). Depleted matrix colors are dark gray (10 YR 4/1) to dark grayish brown (10 YR 4/2) to gray (10 YR 5/1) to grayish brown (10 YR 5/2) and feature common to many yellow-red redoximorphic concentrations. Although soils in uplands met hydric soil criteria, they were determined to occur in uplands due to the lack of hydrophytic vegetation and wetland hydrology indicators. The hydric soil indicators observed are presumed to be relic features that indicate wetland areas were larger prior to upstream damming on the rivers associated with the Site and the construction of the onsite levee system. Soil textures range from silt loam to sandy loam to sand.

Vegetation includes the following habitat types (shown in Figures 3-5a and 3-5b):

Colonial Bentgrass – Perennial Ryegrass Pasture

This pastureland community occurs in the northern section of the Study Area throughout the Lower and Upper Front Fields and upper sections of Lake Field, covering 25.09 acres. It is heavily grazed and features high cover of weedy species. It is dominated by colonial bentgrass and perennial ryegrass with meadow brome (*Bromus commutatus*; UPL), hairy cat's ear, and common plantain occurring as sub-dominants; and velvetgrass, sweet vernalgrass (*Anthoxanthum odoratum*; FACU), and red clover (*Trifolium pratense*; FACU) occurring occasionally.

Colonial Bentgrass - Tall Fescue - Velvetgrass Pasture

This pastureland community co-occurs with the Colonial Bentgrass – Perennial Ryegrass Upland Pasture community throughout the Lower and Upper Front Fields and occurs along the upper

portions of Petty Field. It covers 42.09 acres and is both heavily grazed and mown regularly. It is similar in species composition to the Colonial Bentgrass – Velvetgrass Palustrine Emergent wetland community, except it features tall fescue as a co-dominant as well as commonly occurring upland pasture grass species such as orchardgrass (*Dactylis glomerata*; FACU) and sweet vernalgrass, and weedy upland forbs such as wild carrot, hairy cat's ear, common plantain and red clover. Water smartweed is also common within this community.

Bigleaf Maple - Douglas Fir/Hazelnut Forest

This forest community occurs as a narrow margin along the western boundary of the Study Area where the topography transitions from floodplain to basalt hillside, covering 2.24 acres. It is associated with Olympic very stony clay loam soils. It consists of a mid seral-to-mature overstory of bigleaf maple (*Acer macrophyllum*; FACU) and Douglas fir (*Pseudotsuga menziesii*; FACU) interspersed occasionally with black cottonwood, with a well-developed understory dominated by hazelnut (*Corylus cornuta*; FACU), snowberry, and trailing blackberry, along with commonly occurring Indian plum and red elderberry (*Sambucus racemosa*; FACU), western swordfern (*Polystichum munitum*; FACU), blue wildrye (*Elymus glaucus*; FACU), herb-Robert (*Geranium robertianum*; UPL), and sweet cicely dominate the herbaceous layer.

Black Cottonwood - Oregon Oak/Himalayan Blackberry Forest

This upland forest community occurs along the eastern boundary of the Study Area where the topography rises into hillside and railway ballast and is associated with Washougal stony loam soils. It consists of an Oregon oak and black cottonwood dominated overstory interspersed occasionally with Oregon ash and Douglas fir. The shrub layer is dominated by Himalayan blackberry and includes snowberry, trailing blackberry, western serviceberry (*Amelanchier alnifolia*; FACU), black hawthorn, oceanspray (*Holodiscus discolor*; FACU), and cascara (*Frangula purshiana*; FAC); the herbaceous layer includes sweet vernalgrass and wild carrot. This community covers 8.34 acres.

Oregon Oak/Douglas Fir - Snowberry Upland Forest

This upland community occurs throughout the Middle Lands and is described in detail in Section 3.1.7. It covers 25.88 acres within the Study Area.

3.2.4 Other Waters

Other waters within the Farm Fields and Lancaster Lake Study Area include Lancaster Lake (Cowardin classes: lacustrine unconsolidated bottom, diked/impounded semipermanently-tidally flooded and permanently-tidally flooded [LUBTh and LUBVh]) and 2.94 miles of ditches

(Cowardin class palustrine aquatic bottom, semipermanently flooded, excavated [PABFx]). Lancaster Lake is an artificial impoundment of Gee Creek surface and groundwater inputs created by the construction of a levee. Water level in the lake is regulated by a tidegate installed within the levee along Gee Creek. Lancaster Lake is identified as "likely to qualify" as a Shoreline of the State according to the Ecology SMP Handbook (Ecology 2012). It does not qualify as a TNW, but because it maintains a surface connection with a waterway that flows directly into a TNW (Gee Creek), it is regulated under federal jurisdiction.

The ditches (shown in Figure 1-3) have been excavated from wetlands (with the exception of the upper ends of the northernmost ditches) to drain the area for agricultural use and all flow into Lancaster Lake. Ditches vary in width from 6 to 15 feet and in depth from 2 to 5 feet. Ditches in the northern section of the Study Area are completely vegetated with seasonal flow periods; ditches in the southern section of the Study Area feature indicators of OHWM and have relatively permanent flows (flows for at least 3 months out of the year). All ditches within the Study Area will be regulated as part of the wetland with the exception of the upper ends of the northernmost ditches, which are completely vegetated, flow intermittently, and have been excavated from uplands.

3.3 Gee Creek - South Backwater Study Area

One wetland was identified within the Study Area, encompassing much of it. The mapped wetland area along with data plot and photo point locations are shown on Figure 3-7, wetland rating forms are provided in Appendix B, and photographs of wetland areas are included in Appendix C.

3.3.1 Wetland 3

Wetland 3 occupies 68.73 acres of broad, low-lying floodplain and channel areas along a backwater of Gee Creek between the Narrows at the levee impounding Lancaster Lake and the main Gee Creek channel to the centerline, which serves as the Study Area boundary. The wetland ranges in elevation from 8 to 13 feet NAVD88 and supports long-duration inundation by Gee Creek flows and backwater effects from the Columbia River. The wetland is bounded by the Middle Lands to the north, basalt outcrop and railway embankment to the east, the Ridgefield National Wildlife Refuge to the south, and Gee Creek to the west. Basalt outcrops also protrude into the wetland and form scattered isolated upland "mounds" which support oak and dry prairie vegetation (commonly referred to as "oak balds") throughout it, creating sharp transitions from wetland to upland. The Middle Lands separate Wetland 3 geographically from Wetland 1 of the Lewis River and Gee Creek Study Area to the west, though, during very low

water, a narrow strip of emergent reed canarygrass and wapato may briefly connect the two. Wetland 3 is categorized as a riverine HGM class. It is subjected to seasonal-tidal inundation by Gee Creek flows and consists of PFO1C, PSS1C, PEMC, and riverine, non-persistent emergent, semipermanent-tidal (R1EM2T) Cowardin classes.

Hydrology

Primary hydrological indicators were observed throughout Wetland 3. These included surface water (A1), high water table (A2), saturation (A3), sediment deposits (B2), drift deposits (B3), and inundation visible on an aerial image (B7).

Soils

Soil data in Wetland 3 meet Corps hydric soil indicator criteria for depleted matrix (F3). Dark soil matrix colors are very dark grayish brown (10 YR 3/2 and 7.5 YR 3/2) to very dark brown (10 YR 2/2 and 7.5 YR 2.5/2) and depleted matrix colors are dark gray (10 YR 4/1) to dark grayish brown (10 YR 4/2) to grayish brown (10 YR 5/2). Soil matrices feature common to many distinct to prominent yellow-red redoximorphic features and common depletions. In some instances, black (10 YR 2/1) organic matter was observed coating soil peds. Soil textures range from silt loam to silty clay loam.

Vegetation

Vegetation communities within the wetland include forested, scrub-shrub, and emergent communities, which are described in detail below and shown on Figure 3-8.

Wapato - Creeping Spikerush Riverine Non-Persistent Emergent

This community occupies the low-lying floodplain and channel areas that are inundated throughout much of the year; vegetation is absent during winter/spring high water periods. The community is characterized by extensive wapato beds intermixed with creeping spikerush and swamp smartweed with rice cutgrass (*Leersia oryzoides*; OBL) and reed canaygrass occurring occasionally. The community features a Cowardin class of R1EM2T and covers 27.08 acres.

Reed Canarygrass Palustrine Emergent

This community occupies areas that are slightly higher in elevation than the wapato - creeping spikerush community, receiving a somewhat shorter duration of inundation. It covers a large area in the southwestern section of the wetland and forms a narrow fringe between the wapato beds and forest vegetation classes in the rest of the wetland. Similar to the reed canarygrass community found in Wetland 3, it is composed primarily of reed canarygrass interspersed

occasionally with wapato, rice cutgrass, woolgrass (*Scirpus cyperinus*; OBL), swamp smartweed, creeping Jenny, and nodding beggar's tick (*Bidens cernua*; OBL). The community features a Cowardin Class of PEMC and occupies 13.11 acres.

Pacific Willow/Reed Canarygrass Palustrine Scrub-shrub

This community occurs in several patches scattered throughout Wetland 3. It is composed of a Pacific willow overstory and a reed canarygrass understory; creeping Jenny and swamp smartweed occur occasionally. It remains saturated-to-inundated throughout much of the growing season. The community features a Cowardin Class of PEMC and occupies 6.93 acres.

Oregon Ash/Reed Canarygrass Palustrine Forested

This community occurs as a narrow band where the wetland-to-upland transition is more gradual. In some cases, the community grows directly on the lower slopes of basalt outcrops. The community consists of an open-to-closed Oregon ash canopy with occasional Pacific willows, Nootka rose, and black hawthorn, and an understory of reed canarygrass interspersed with creeping Jenny, slough sedge, and small-flowered bedstraw. This community is subjected to seasonal inundation and year-round saturation and features a Cowardin classification of PFO1C; it occupies a total area of 9.39 acres.

3.3.2 Wetland Rating Category, Functions, and Buffers

Wetland 3 was divide into two rating units separated by an expanse of Gee Creek measuring greater than 50 feet wide (Figure 3-9). Unit 3a occupies a narrow wetland bench along the north bank of the Gee Creek backwater and the Narrows and rated as a Category II. Unit 3b covers the broad floodplain and channels areas to the south of the Narrows, including the backwater, and rated as a Category I. Units 3a and 3b are each accorded a buffer width of 130 feet due to their habitat function scores. Rating results for each wetland unit are shown in Table 3.3.

Table 3.3. Wetland Ratings for Wetlands 3 and 4

Wetland Unit	Water Quality	Hydrology	Habitat	Total Function Score	Final Rating	Clark County Buffer Width – Low Intensity Land Use
3a	7	7	8	22	II	130 feet
3b	8	8	8	24	I	130 feet

Units 3a and 3b are determined to be riverine HGM classes and scored similarly. Both units rated well with regard to water quality and hydrologic functions based on the high cover of shrubs and

trees, and location in a basin with development and 303(d) listed streams. Unit 3b features more Site potential than Unit 3a due to a greater abundance of surface depressions to trap sediment and higher water storage capacity (larger stream/wetland ratio). The landscape potential of both units is somewhat limited, however, by the relatively undisturbed condition of their surroundings. Both units offer high habitat quality, featuring multiple vegetation structures, hydroperiods, special habitat features, and good habitat interspersion. Their intact buffers and good connectivity to other habitats confers high landscape potential and the presence of WDFW Priority Species and Habitats confers high value.

Both units are all located within a section/township/range, which contains a natural heritage wetland (accessed from the DNR WHNP website); however, they do not feature any mapped presence of state-listed threatened or endangered plant species, so they do not qualify as natural heritage wetlands.

3.3.3 Other Waters

Two small streams were identified within the Gee Creek - South Backwater Study Area, draining into the wetland from the east. Stream 1 is approximately 2 feet wide and approximately 6 inches deep at bankfull; Stream 2 is 1 to 1.5 feet wide and less than 6 inches deep at bankfull. Both streams featured flowing water during the time of fieldwork. Vegetation along the streams was primarily upland and included Himalayan blackberry, trailing blackberry, and snowberry. Streams featured fairly defined bed and banks, as well as evidence of scour, indicating that they are likely relatively permanent waters (flowing for at least three months out of the year), though they do not appear to be perennial based on their small size and weak indicators. Because of their size and flow status, they most likely do not support any fish use, thus qualify as Type Ns streams and are accorded a County-regulated buffer of 75 feet measured out from the OHWM (Section 40.440.010[C] of the County code). In addition, as they are relatively permanent and flow indirectly into a TNW, they present a significant nexus for Corps and Ecology jurisdiction.

3.3.4 Uplands

Uplands in the Gee Creek - South Backwater Study Area include steeply-sloped basalt outcrops occurring as protrusions and isolated mounds within the wetlands, as well as the basalt slopes of the Middle Lands along the northern boundary of the Study Area. Soils matrix colors are black (10 YR 2/1), very dark gray (10 YR3/1), dark brown (10 YR 3/3 and 7.5 YR 3/2), and dark reddish brown (5 YR 3/3); some samples featured a lower layer of dark grayish brown (10 YR 4/2) matrix color. Soil textures are silt loam to silty clay loam to clay loam and are generally underlain by basalt bedrock within a few inches of the surface, which inhibited the complete

excavation of several soil pits. Vegetation consists of the following communities (shown on Figure 3-8):

Oregon Oak - Douglas Fir/Snowberry Forest

This community occurs within the Middle Lands and along the eastern margins of the Study Area and occupies 33.86 acres within the Study Area. It includes an overstory of Oregon Oak interspersed with Douglas fir, Oregon ash, and bigleaf maple with a well-developed shrub layer of snowberry, Himalayan blackberry, blackcap raspberry, serviceberry (*Amelanchier alnifolia*; FACU), Oregon grape (*Mahonia nervosa*; NOL), oceanspray (*Holodiscus discolor*; FACU), ovalleaved viburnum (*Viburnum ellipticum*; NOL), trailing blackberry, and poison oak (*Toxicodendron diversilobum*; NOL). The herbaceous layer commonly features western swordfern, cleavers, herb-Robert (*Geranium robertianum*; NOL), miner's lettuce (*Claytonia perfoliata*; FAC), oak fern, St. John's wort, sweet vernal grass, and orchardgrass.

Oregon Oak/Snowberry-Himalayan Blackberry/Mixed Grass Forest

This community occurs on the basalt "mounds" within the Study Area and occupies 19.66 acres of the Study Area. It features an overstory of Oregon oak interspersed with Oregon ash and a shrub layer dominated by Himalayan blackberry and snowberry, along with oval-laved viburnum. The understory is composed predominantly of weedy grass species including creeping bentgrass, dogtail grass (*Cynosurus echinata*; NOL), cheatgrass (*Bromus tectorum*; NOL), velvetgrass, sweet vernalgrass and orchargrass along with weedy forbs such as St. John's wort, wild carrot, self-heal, mullein, chickweed (*Stellaria media*; FACU), dovefoot Geranium (*Geranium molle*; NOL), and dissected Geranium (*Geranium dissectum*; NOL).

4 Conclusions

Cascade Environmental Group, LLC delineated five wetlands totaling 595.93 acres within Plas Newydd Farm, which was divided into three separate Study Areas due to differing ecological conditions. Results are summarized in Table 4.1 below. The Lewis River and Gee Creek Study Area occurs in the floodplain of the Columbia and Lewis rivers and Gee Creek; the Farm Fields and Lancaster Lake Study Area occurs in a levee-protected Lewis River floodplain that no longer experiences overbank flooding except during major flood events, but is highly influenced by Columbia River groundwater/hyporheic influence; and the Gee Creek - South Backwater Study Area occurs in along a backwater of Gee Creek and encompasses steep basalt slopes. Wetlands in the Lewis River and Gee Creek and Farm fields and Lancaster Lake Study Areas occurred below 15.5 feet NAVD88 elevation (with the exception of Wetlands 4 and 5, associated with the slopes of the Middle Lands) and wetlands in the Gee Creek - South Backwater Study Area occurred below 13 feet NAVD88, a factor of steep, rocky adjacent slopes that do not allow for the formation of wetlands at intermediate elevations.

Three wetlands were identified within the Lewis River and Gee Creek Study Area (Wetlands 1, 4, and 5). Wetland 1 totals 244.27 acres. In addition, a wetland/upland mosaic area was identified occurring at a 60%/40% ratio between elevations 15.5 and 17 feet NAVD88, totaling 30.28 acres. Wetland 1 is divided into three rating units (Unit 1a, Unit 1b, and Unit 1c); all three units rated as Category I with special characteristics.

Unit 1a includes a mix of forested, scrub-shrub, emergent and open water areas. Tree and shrub species are mostly native species; understory and emergent vegetation is a mix of native and nonnatives. The unit includes a series of ridges oriented parallel to the Lewis River channel; ridges at higher elevations support mosaic and upland communities. In between the ridges are low swales or channels, supporting emergent or shrub vegetation, or open water. Portions of the channel have been filled intentionally with Columbia River dredge sand or sediment accumulated through current geomorphic process. The open water areas are connected to the Lewis River during higher river flows during winter and spring, but become separated as river flows drop during summer. Habitat interspersion is high due to the complex of floodplain features and the vegetation communities. Unit 1a is accorded a buffer width of 150 feet per County Wetland Protection ordinance (Ordinance No. 2006-05-027; Chapter 40.450).

Unit 1b is separated from Unit 1a by a ridge, which routes flows toward Gee Creek at lower flows. Surface flows in 1b are controlled by a series of dams that were installed to manage much

of the wetland unit for waterfowl hunting. The first structure was constructed in the 1960's, and two additional structures were constructed in the 19080's. Flows have been managed to prolong and enhance waterfowl hunting, typically water levels were controlled during wetter months. During summer draw-down, wooden planks used to control water depth were removed to allow the Site to drain. The dams reduce the unit's live storage capacity by maintaining full basins; basins behind the dams are low elevation and support emergent vegetation communities that tolerate long-duration inundation, such as wapato, spikerush, and sedges. The basin is formed by the natural levees of the Gee Creek streambank, the ridge dividing Units 1a and 1b, and the basalt upland Middle Lands area. Unit 1b is accorded a buffer width of 130 feet.

Unit 1c is free of impoundments, separated from Unit 1b by a rockfill and flashboard dams. It is also accorded a buffer width of 130 feet

Wetlands 4 and 5 are small wetlands located along the lower western slope of the Middle Lands; they measure 0.04 and 0.22 acres, respectively. The wetlands both rated as Category III wetlands, and though they merit a standard buffer width of 75 feet, due to their very small size, the buffer was reduced to the minimum width necessary to protect their water quality functions (40 feet).

Three Type S streams occur in the Lewis River and Gee Creek Study Area: Gee Creek, the Columbia River, and the Lewis River, which includes an associated slough, which flows through the wetland. The Columbia and Lewis rivers are also designated TNWs. A 250-foot buffer is associated with all Type S streams per County Habitat Protection Ordinance (Chapter 40.440).

One wetland (Wetland 2), totaling 252.39 acres, was identified within the Farm Fields and Lancaster Lake Study Area. The wetland is divided into three rating units (Unit 2a, Unit 2b, and Unit 2c) based on the presence of large ditches that establish hydrological breaks between wetland units. All three rating units are impounded by a levee that blocks flows between Wetland 2 and Gee Creek. Units 2a and 2b rated a Category III and Unit 2c rated a Category II. Units 2a and 2b are mostly pasture areas but do include small forested and scrub shrub communities; hydrological variability is limited to subtle topographic changes and large ditches running both across and down slopes. Unit 2c includes Lancaster Lake and larger woody species communities. The emergent and forested areas surrounding Lancaster Lake are long-duration seasonally inundated, often remaining inundated through June.

Wetland 2 is adjacent (although separated by levees) to two Type S streams: the Lewis River and Gee Creek, and includes Lancaster Lake, which is identified as potentially qualifying as a Type S water. The Lewis River is also a designated TNW. A 250-foot buffer is associated with the

streams. There are also 2.94 miles of ditches within the Study Area, excavated from the wetland, which are regulated as part of it.

One wetland (Wetland 3) was identified in the Gee Creek - South Backwater Study Area, totaling 68.73 acres. Wetland 3 is divided into two rating units (Unit 3a and unit 3b) by an expanse of open water measuring greater than 50 feet wide. Unit 3a rated as Category II and Unit 3b rated as Category I; each unit is accorded a 130-foot wide buffer according to County ordinance based on their similar habitat score.

Wetland 3 is adjacent to Gee Creek (Gee Creek segment was included as a component of Wetland 3 in this delineation), a Type S stream meriting a 250-foot wide County buffer. Two small Type Ns streams (Stream 1 and Stream 2) were also identified in the Study Area, draining into Wetland 3 from the east. They are each accorded a buffer of 75 feet per County Ordinance,

Table 4.1. Wetland Delineation Results Summary Table

Wetland	Rating Unit	Category	нсм	Cowardin Class	Acreage
	1a	I	riverine	PEMA, PEMC, PFO1A, PFO1C, PSS1C, R1EMR, R1UBV	133.17
1	1b	I	riverine	PEMA, PEMC, PEMKh, PFO1A, PFO1C, PSS1C, PUBKh, R1UBV	134.94
	1c	I	riverine	PEMC, PFO1A, PFO1C, PSS1C, R1UBV	6.44
Wetland 1	l Total				274.55
2	2a	III	slope	PEMAd, PEM1Fx, PEMCx, PSS1Cd	12.35
	2b	III	slope	PEMAd, PEMCd, PFO1Ad, PSS1Cd	34.69
	2c	II	lacustrine	LUBTh, LUBVh, PABFx, PEM1Fh, PEMAd, PEMCd, PFO1Ad, PSS1Cd	205.35
Wetland 2	2 Total				252.39
	3a	II	riverine	PEMC, PFO1C, R1EM2T	7.14
3	3b	I	riverine	PEMC, PFO1C, PSS1C, R1EM2T, R1UBV	61.60
Wetland 3 Total					68.73
4		III	slope	PFO1B	0.04
5		III	slope	PFO1B	0.22

Wetland	Rating Unit	Category	НСМ	Cowardin Class	Acreage
Grand Tot	595.93				

It is expected that the County, as well as the Corps and Ecology, will regulate the identified wetlands; the streams come under both state and federal jurisdiction. The stream and wetland buffer areas will be regulated by the County.

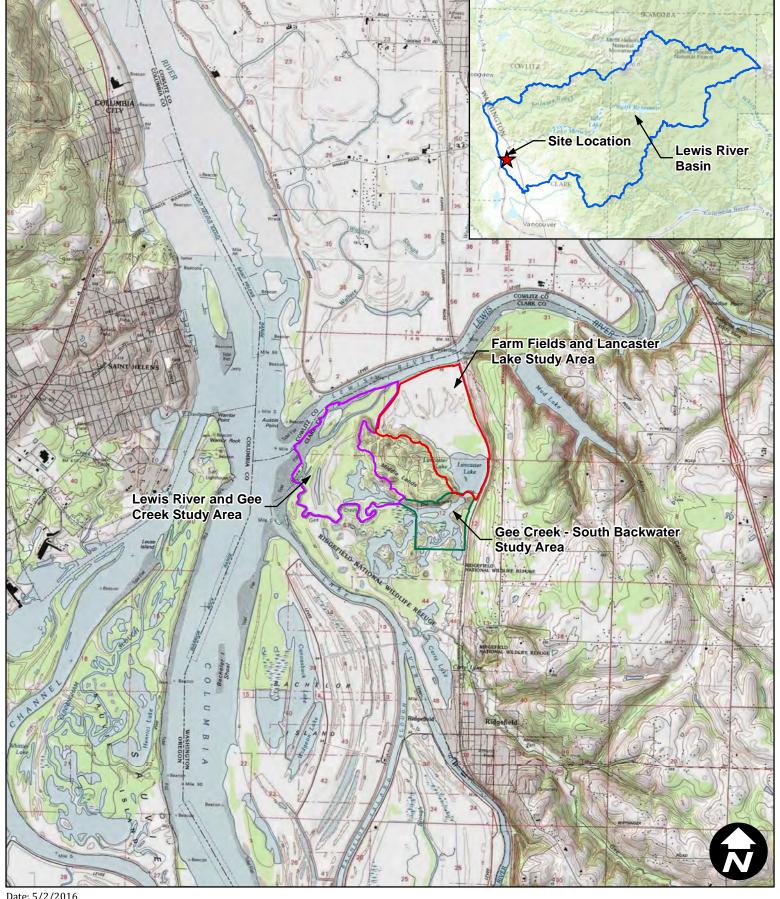
This report documents the best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at one's own risk until it has been reviewed and approved in writing by the U.S. Army Corps of Engineers, the Washington State Department of Ecology, and Clark County.

References

- Clark County. 2012. Clark County Shoreline Master Program 2012 Update. Approved by the Department of Ecology on August 29, 2012.
- Clark County. 2013. Clark County Geographic Information System Database: Dataset 1 and 2. September 2013.
- Clark County. 2014. Subtitle 40.4: Critical Areas and Shorelines. Clark County Code. Code Publishing Company. Seattle, WA. February 2, 2014.
- Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deep-Water Habitats of the United States. (FWS/OBS-79/31.) U.S. Fish and Wildlife Service. Washington, DC.
- Environmental Laboratory. 1987. U.S. Army Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Waterways Experiment Station. Vicksburg, MS.
- Gretag Macbeth. 2000. Revised Edition. Munsell Soil Color Charts. New Windsor, NY.
- Hruby, T. 2014. Washington State Wetland Rating System for Western Washington 2014 Update. Washington State Department of Ecology Publication # 14-06-019.
- Interfluve. 2013. Lake Rosannah Water Level and Temperature Study. Interfluve Inc. Hood River, Oregon.
- Lichvar, R. W. 2012. The National Wetland Plant List. Prepared for the U.S. Army Corps of Engineers ERDC/CRREL TR-12-11. Washington, DC 20314-1000. October 2012.
- McMillan, A. 1998. How Ecology Regulates Wetlands. No. 97-112. April 1998. Washington State Department of Ecology. Olympia, WA
- NOAA NOWData for Portland International Airport, OR. 2014. Available at: http://www.nws.noaa.gov/climate/xmacis.php?wfo=pqr. Accessed 07/07/2014.
- NOAA NOWData for Vancouver 4 NNE station, Vancouver, WA. 2014. Available at: http://www.nws.noaa.gov/climate/xmacis.php?wfo=pqr. Accessed 07/07/2014.
- NRCS. 2002. WETS Station: Battle Ground, WA0482. U.S. Department of Agriculture. Available at: http://agacis.rcc-acis.org/53011/mtot. Accessed 07/07/2014.
- Olson, P. and E. Stockdale. 2010. Determining the Ordinary High Water Mark on Streams in Washington State. Second Review Draft. Washington Department of Ecology, Shorelands & Environmental Assistance Program, Lacey, WA. Ecology Publication #08-06-001.
- Pater , D. E., S. A. Bryce, T.D. Thorson, J. Kagan, C. Chappell, J. M. Omernik, S. H. Azevedo, and A. J. Woods. 2010. Ecoregions of Western Washington and Oregon (color poster with map, descriptive

- text, summary tables, and photographs): Reston, VA, U.S. Geological Survey (map scale 1:1,500,000).
- Plas Newydd, LLC. 2015. Prospectus for the Wapato Valley Wetland Mitigation and Conservation Bank. Prepared for the U.S. Army Corps of Engineers, Seattle District, and Washington State Department of Ecology by Plas Newydd Conservation Program, Ridgefield, Washington.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 5/10/2014.
- U.S Army Corps of Engineers. 1968. Flood Profiles: Columbia River and Tributaries. Revised March 1968.
- U.S. Army Corps of Engineers, U.S. Environmental Protection Agency. 2007. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in <u>Rapanos v. United States & Carabell v. United States.</u> June 5, 2007.
- U.S. Army Corps of Engineers. 2008. Regulatory Guidance Letter. No. 08-02. June 26, 2008.
- U.S. Army Corps of Engineers. 2008. Navigable Waters of the U.S. in Washington State. Originally listed 19 December 1986, revised 31 Dec 2008.
- U.S. Army Corps of Engineers. 2010. U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Technical Report TR-10-3. U.S. Army Engineer Research and Development Center. Vicksburg. MS.
- U.S. Army Corps of Engineers Portland District. 2010. 2010 U.S. Army Corps of Engineers Portland District Columbia River LiDAR. Portland, Oregon.
- U.S. Fish and Wildlife Service. 2014. National Wetlands Inventory Wetlands. Washington, D.C. May 2014. Available at: http://www.fws.gov/wetlands/
- U.S. Geological Survey. 2014. Water-Resources Data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, Site 14144700, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/14144700.2013.pdf
- Washington Department of Ecology. 2012. Shoreline Master Programs Handbook. 5/24/2012. Olympia, WA. Available at: http://www.ecy.wa.gov/programs/sea/shorelines/smp/handbook/index.html.
- Washington Department of Fish and Wildlife. 2014. Priority Habitat and Species List. Olympia, WA. Published August 2008. Revised April 16, 2014.
- Washington Department of Natural Resources. 2015. Washington State Watercourse (WC) Hydrography. 11/30/2006. Olympia, Washington.

Figures



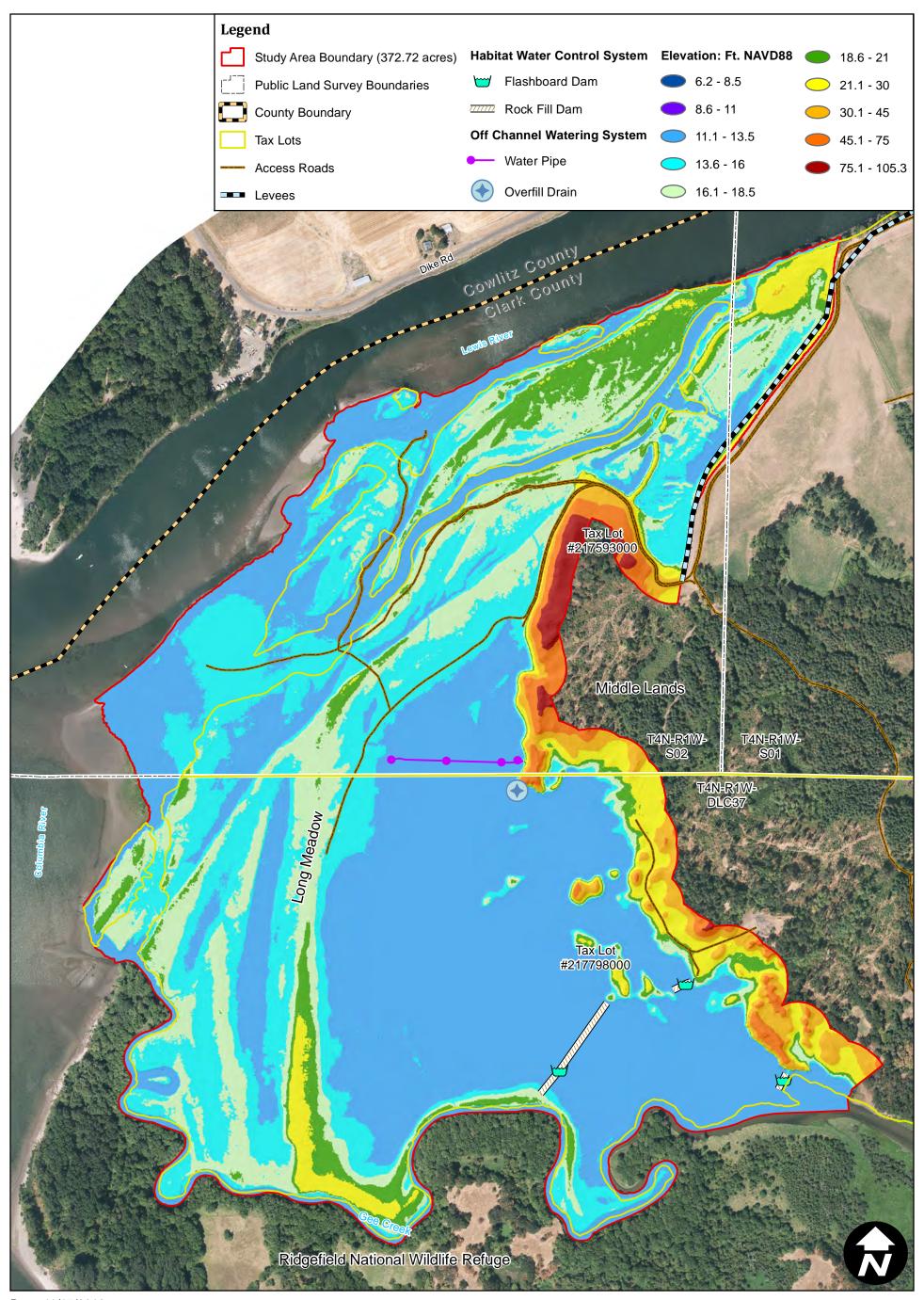
Date: 5/2/2016 Scale: 1 inch = 1 mile Data Source: ESRI, 2016; USGS, National Hydrography Dataset, 2013.

Figure 1-1. Vicinity Map



Plas Newydd Farm

O.5 1 Miles Wetland Delineation Report

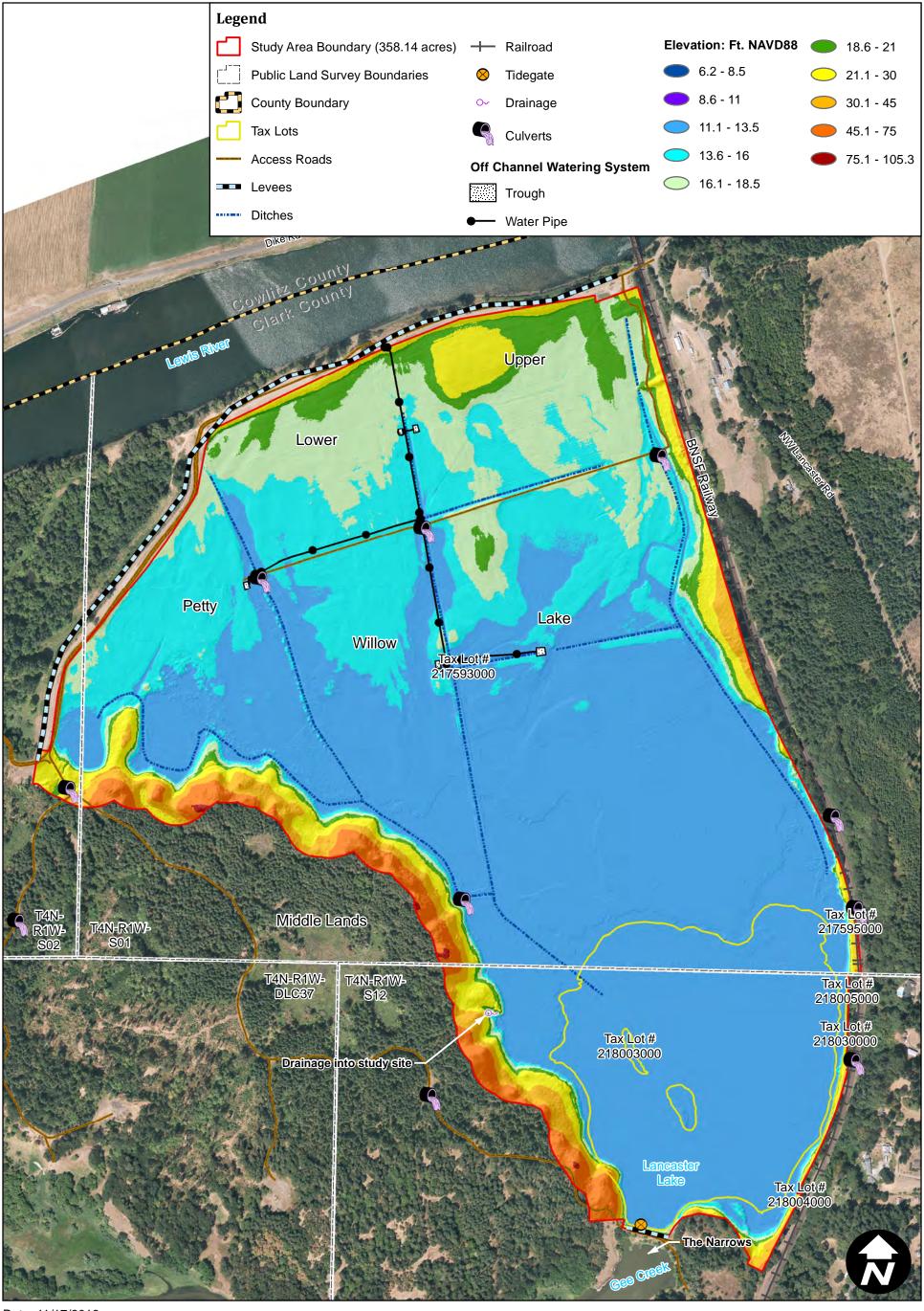


Date: 11/17/2016 Scale: 1 inch = 550 feet

Data Source: ESRI, 2016; GeoTerra, 2016; Clark County GIS, 2013; Plas Newydd Farm, 2016

Figure 1-2. Lewis River and Gee Creek Study Area





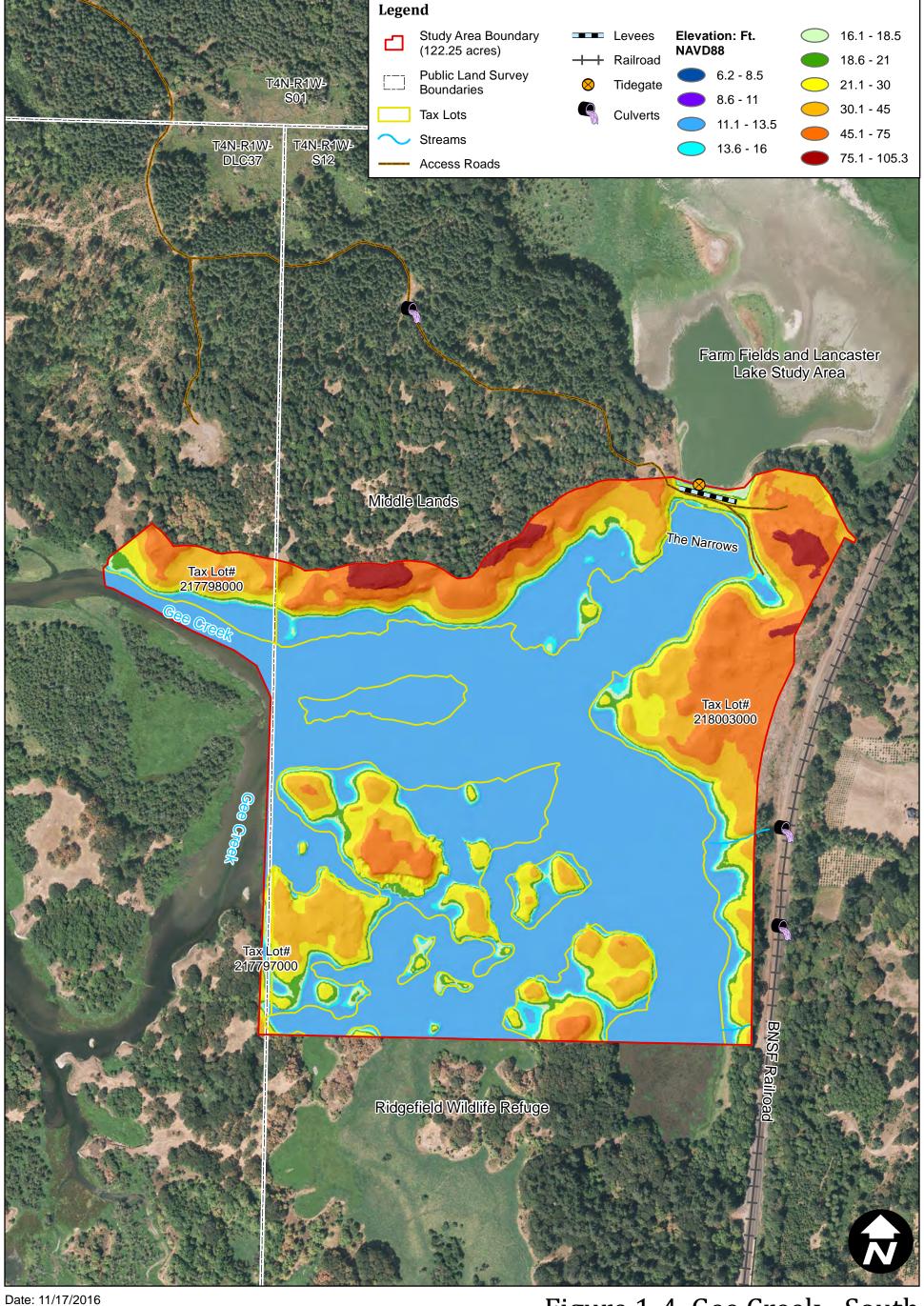
Date: 11/17/2016 Scale: 1 inch = 550 feet

Data Source: ESRI, 2016, GeoTerra, 2016; Clark County GIS, 2013; Plas Newydd Farm, 2016

Figure 1-3. Farm Fields and Lancaster Lake Study Area



Plas Newydd Farm Wetland Delineation Report

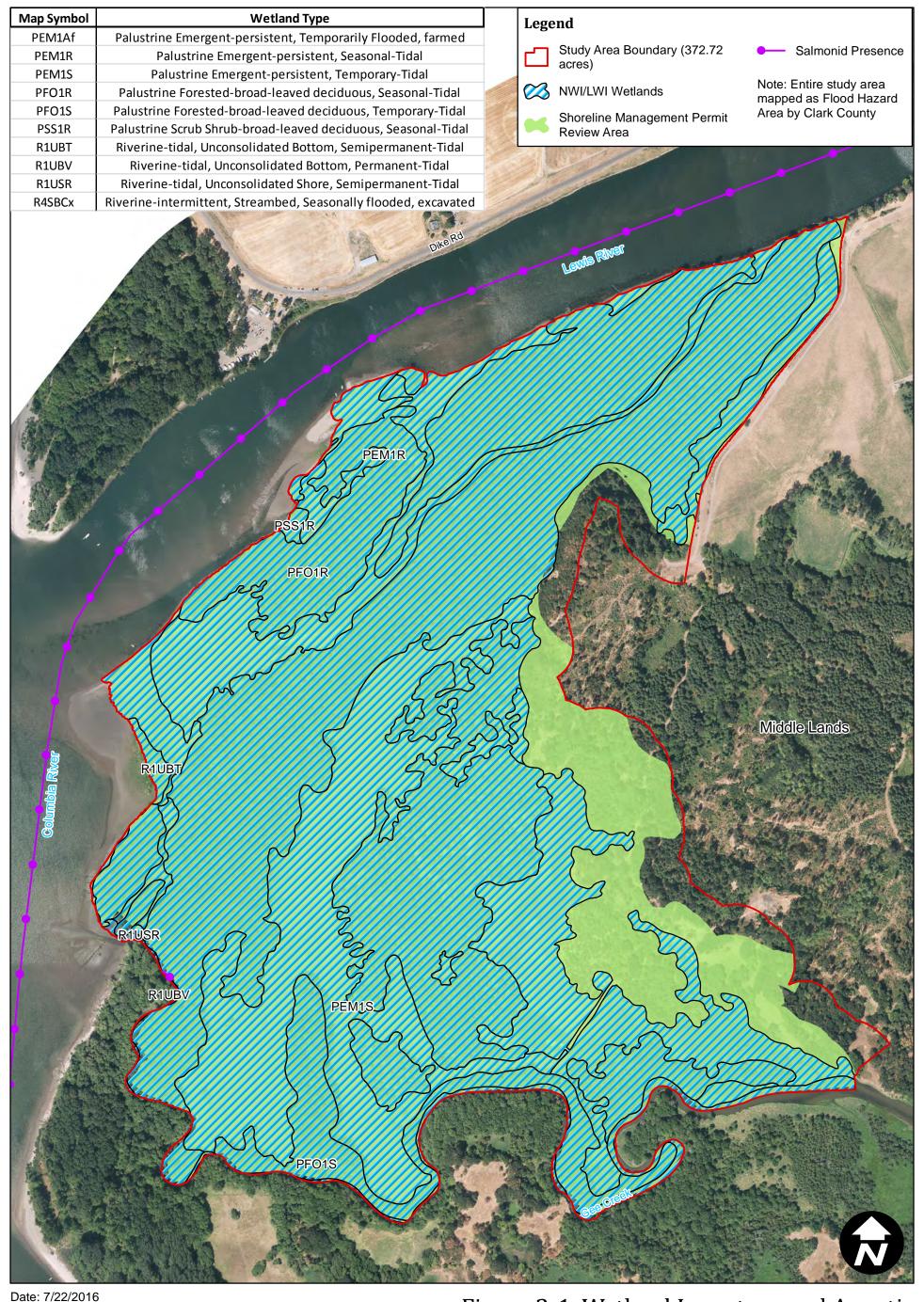


Data Source: ESRI, 2016; GeoTerra, 2016; Clark Coundy GIS, 2013

Figure 1-4. Gee Creek - South Backwater Study Area



Plas Newydd Farm Wetland Delineation Report

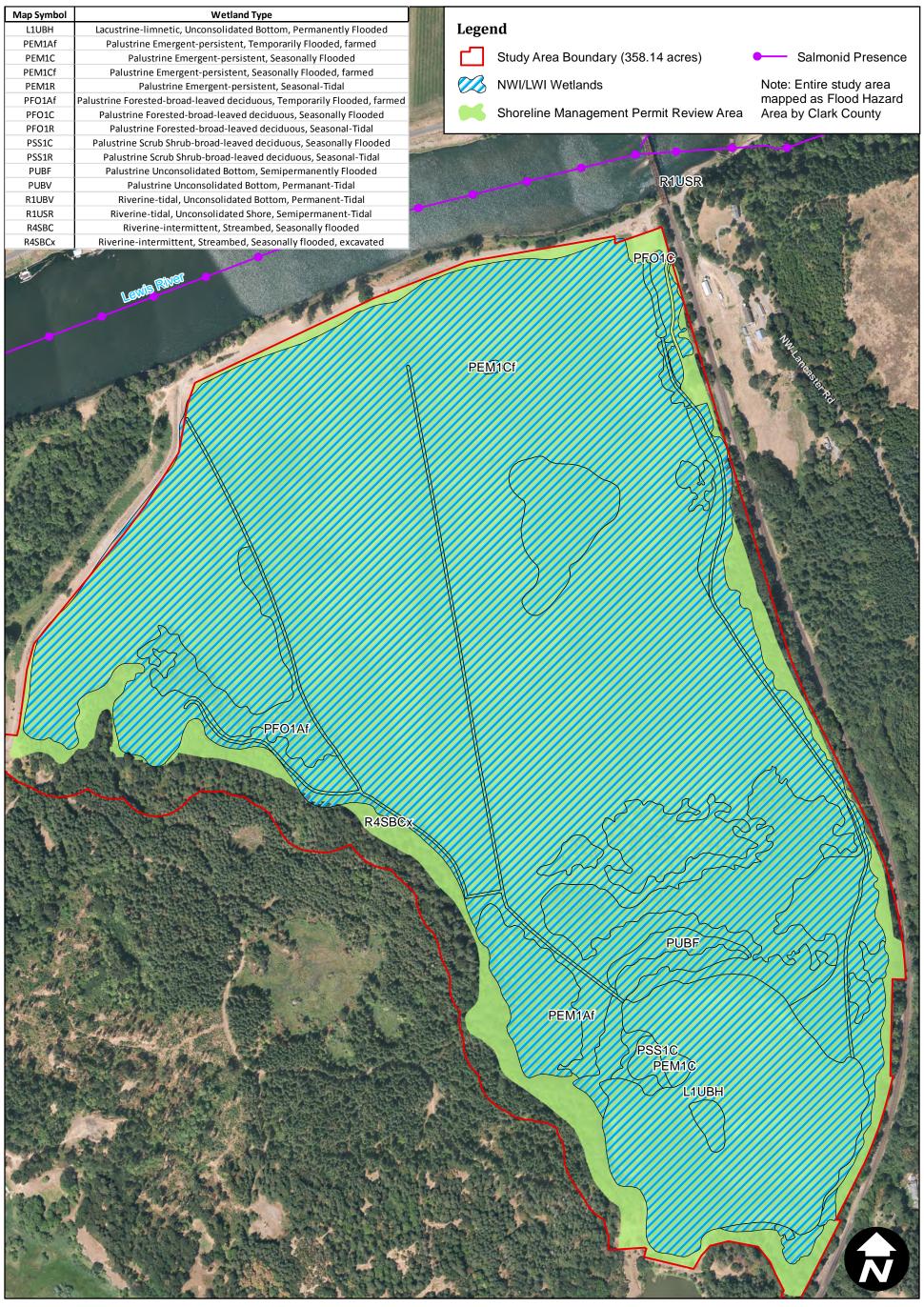


Scale: 1 inch = 550 feet

Data Source: GeoTerra, 2015; Clark County GIS, 2013; USFWS, National Wetland Inventory, 2014

Figure 2-1. Wetland Inventory and Aquatic Areas: Lewis River and Gee Creek





Date: 7/22/2016

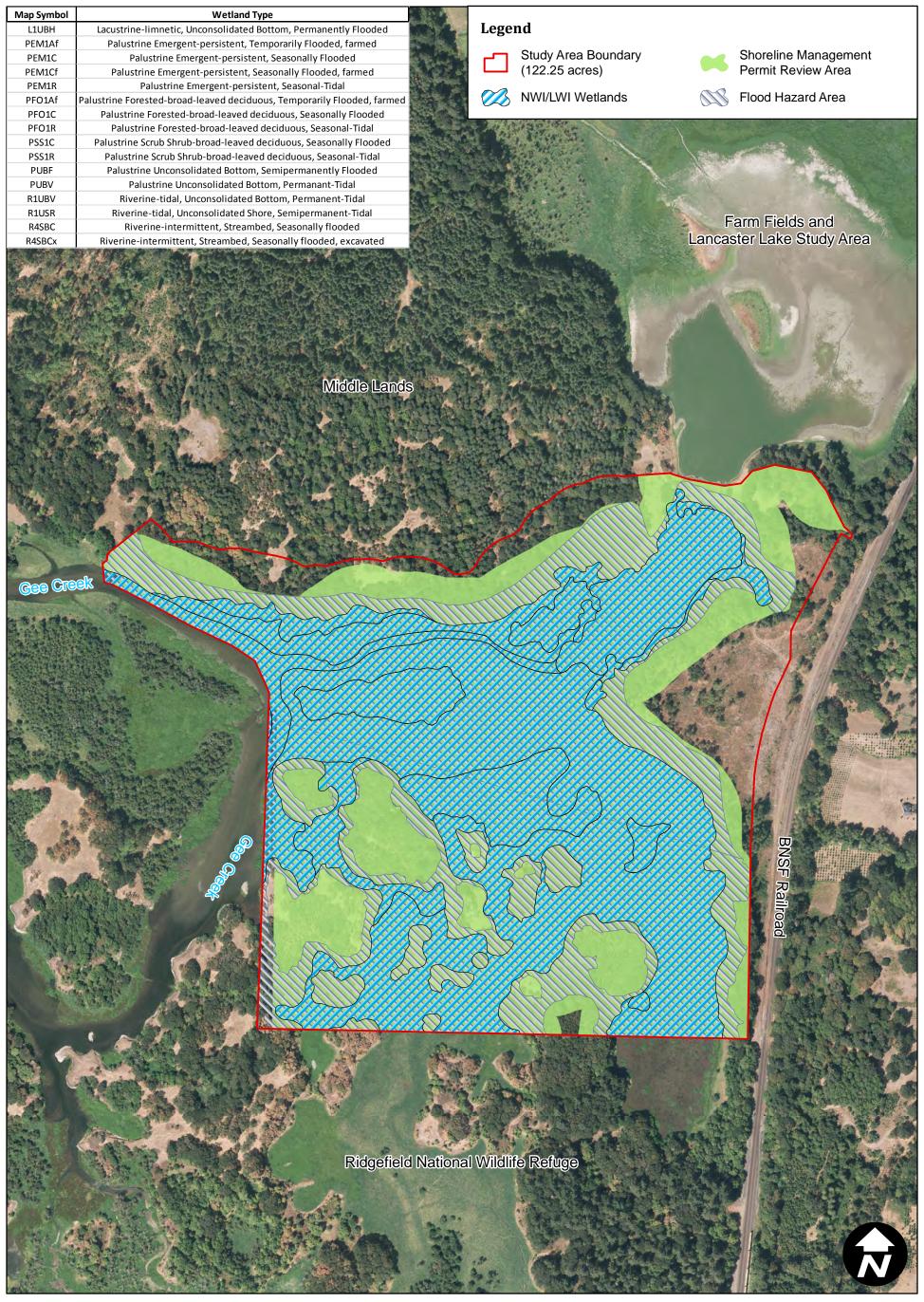
Scale: 1 inch = 500 feet

Data Source: GeoTerra, 2015; Clark County GIS, 2013;

USFWS, National Wetland Inventory, 2014.

Figure 2-2. Wetland Inventory and Aquatic Areas: Farm Fields and Lancaster Lake





Date: 7/22/2016

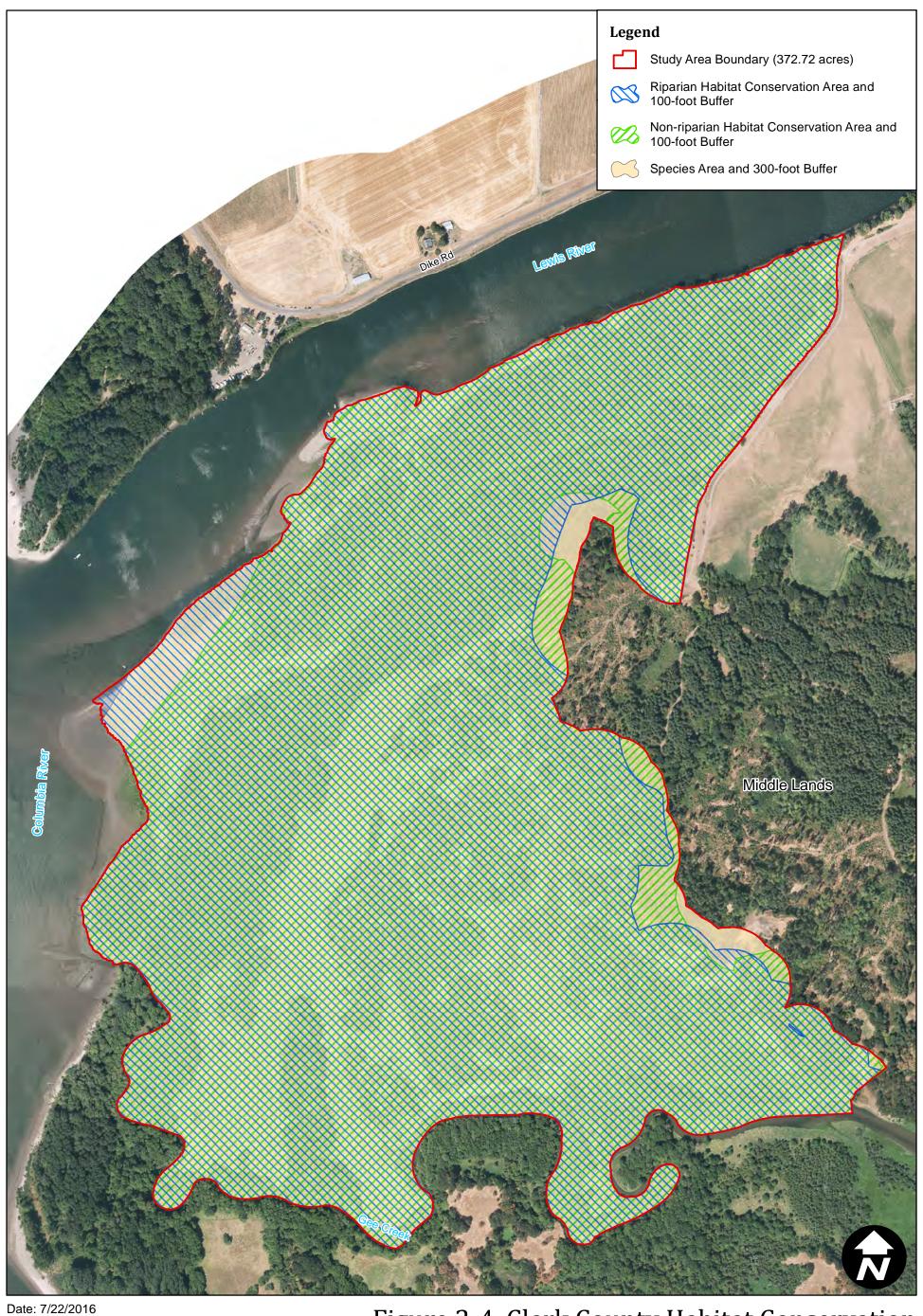
Scale: 1 inch = 400 feet

Data Source: GeoTerra, 2015; Clark County GIS, 2013;

USFWS, National Wetland Inventory, 2014

Figure 2-3. Wetland Inventory and Aquatic Areas: Gee Creek - South Backwater





Date. 1/22/2010

Scale: 1 inch = 550 feet

Data Source: GeoTerra, 2015; Clark County GIS, 2013

Figure 2-4. Clark County Habitat Conservation Critical Areas: Lewis River and Gee Creek

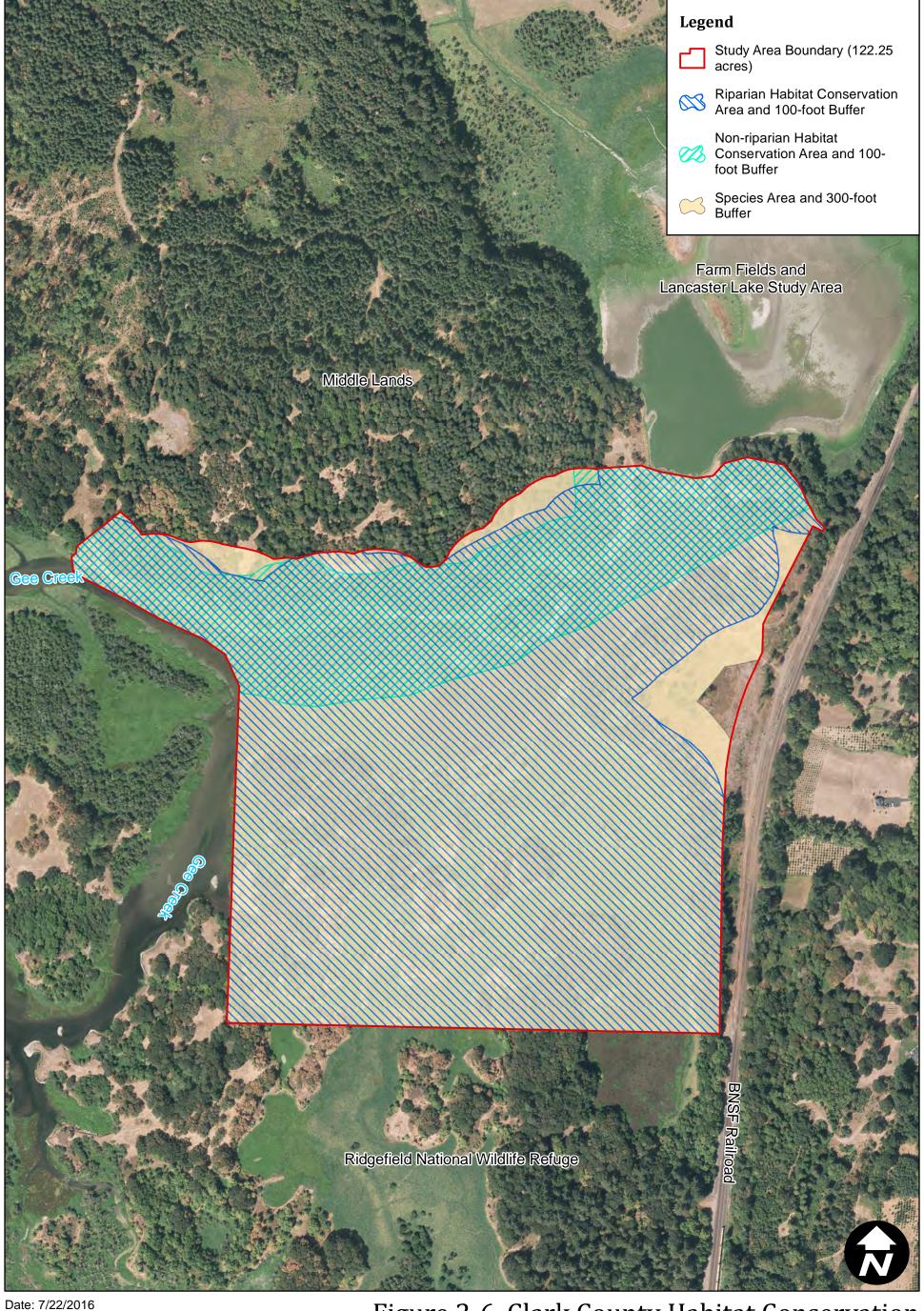




Data Source: GeoTerra, 2015; Clark County GIS, 2013

Figure 2-5. Clark County Habitat Conservation Critical Areas: Farm Fields and Lancaster Lake

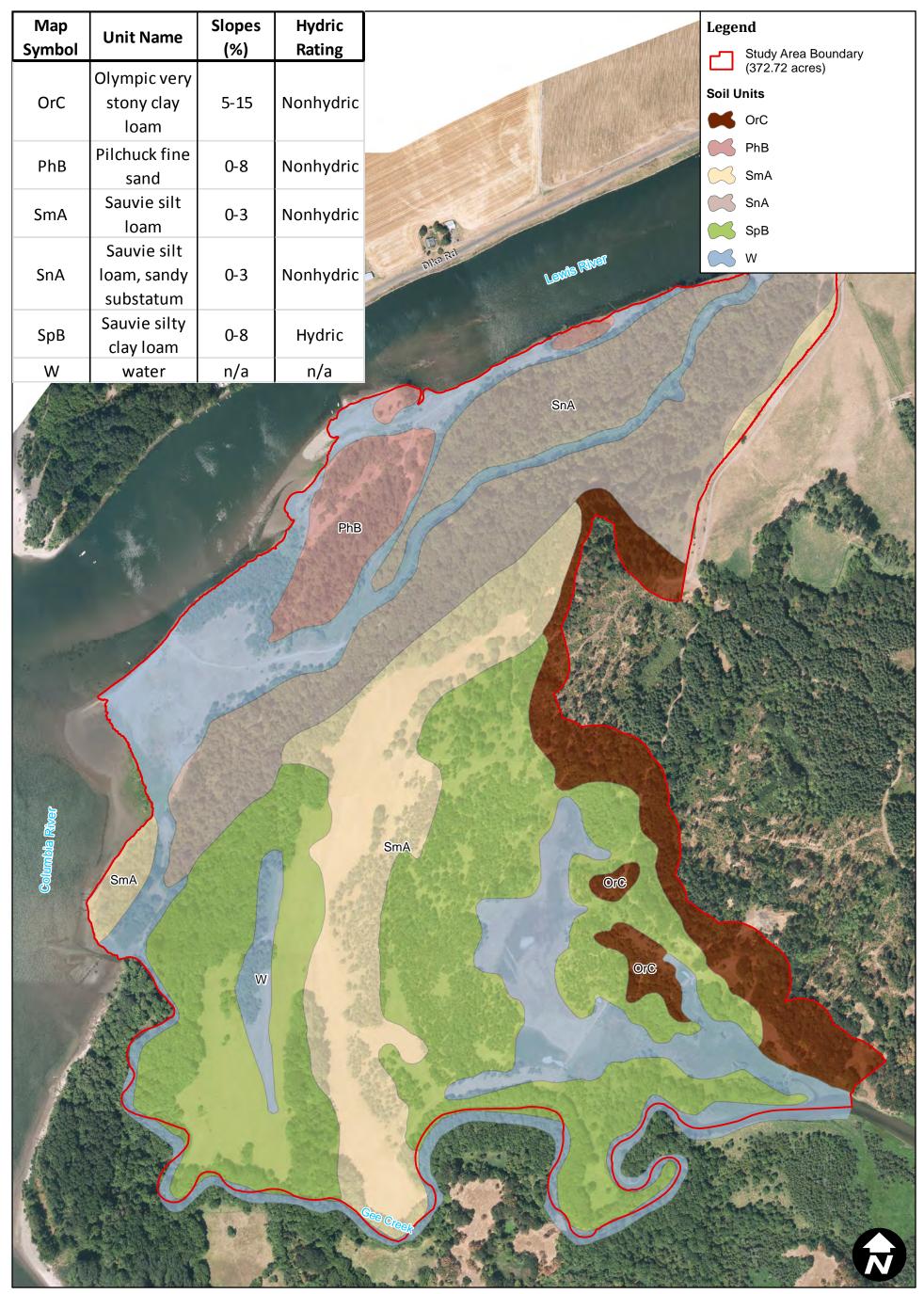




Data Source: GeoTerra, 2015; Clark County GIS, 2013

Figure 2-6. Clark County Habitat Conservation Critical Areas: Gee Creek - South Backwater





Date: 7/22/2016

Scale: 1 inch = 550 feet

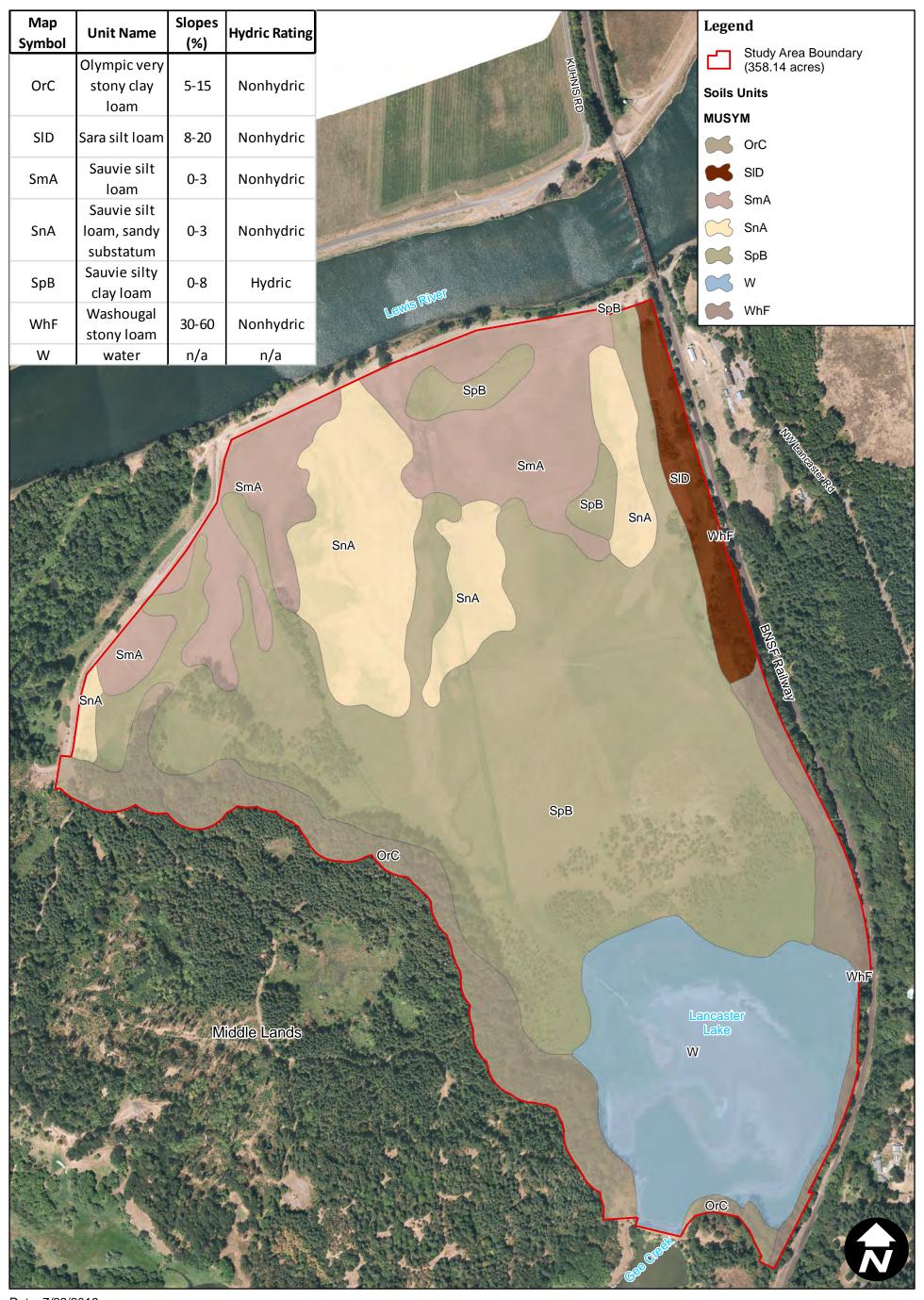
Data Source: GeoTerra, 2015; Soil Survey Staff, Natural Resources

Conservation Service, United States Department of Agriculture. Web Soil

Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 6/10/2014

Figure 2-7. USDA/NRCS Soil Survey Map: Lewis River and Gee Creek



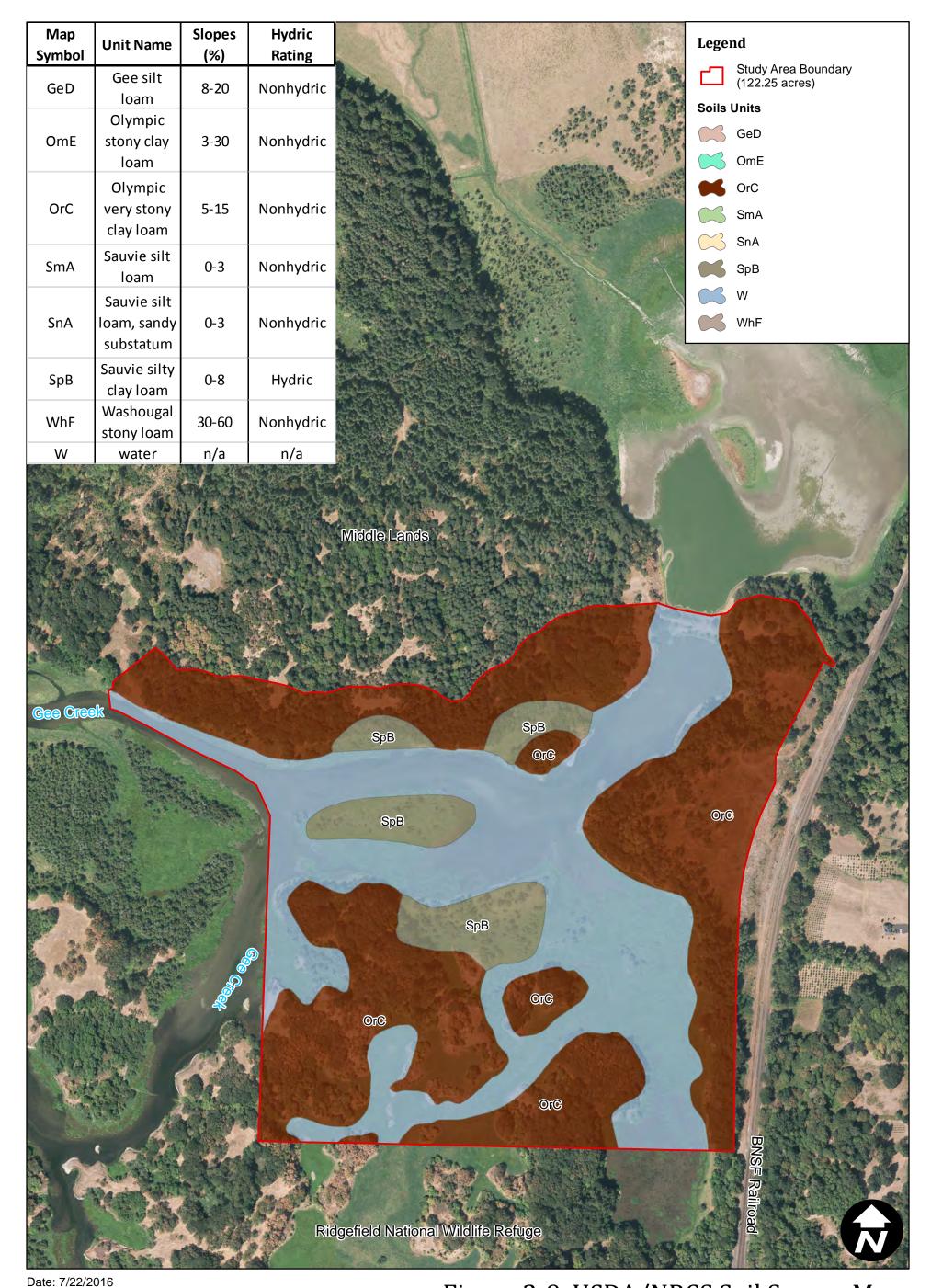


Date: 7/22/2016 Scale: 1 inch = 550 feet

Data Source: GEoTerra, 2015; Soil Survey Staff, Natural Resources
Conservation Service, United States Department of Agriculture. Web Soil
Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 6/10/2014

Figure 2-8. USDA/NRCS Soil Survey Map: Farm Fields and Lancaster Lake

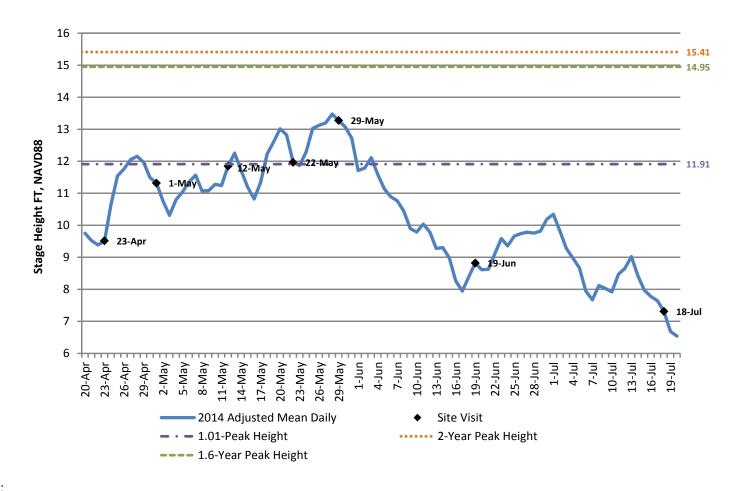




Data Source: GeoTerra, 2015; Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/. Accessed 6/10/2014

Figure 2-9. USDA/NRCS Soil Survey Map: Gee Creek - South Backwater





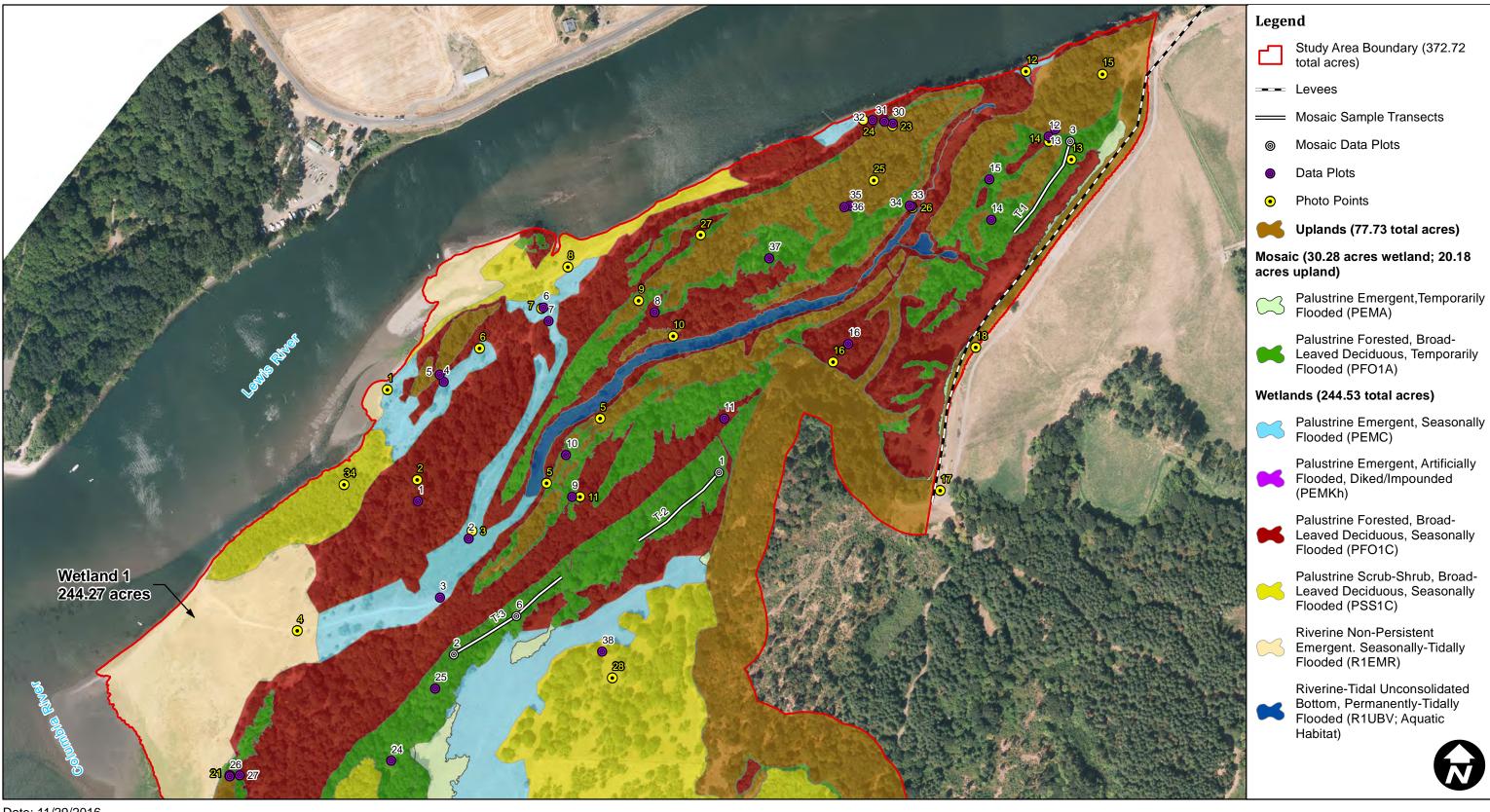
Notes:

Graph shows mean daily stage height between April 20 and July 20 in 2014, along with the dates of field visits. Also plotted are the 1.01-year, 1.6-year, and 2-year peak stage heights.

Peak stage heights were calculated using year-round data collected in the years 1998-2013 obtained from USGS Columbia River stream gage #14144700 at Vancouver, WA. A correction factor of (-3) feet derived from flood profiles developed by the Corps (Corps 1968) was applied to the data to account for the difference in water surface elvation between the Vancouver and the Site

Figure 2-10. Hydrograph of 15-Year Average Stage Height for the Columbia River at Vancouver





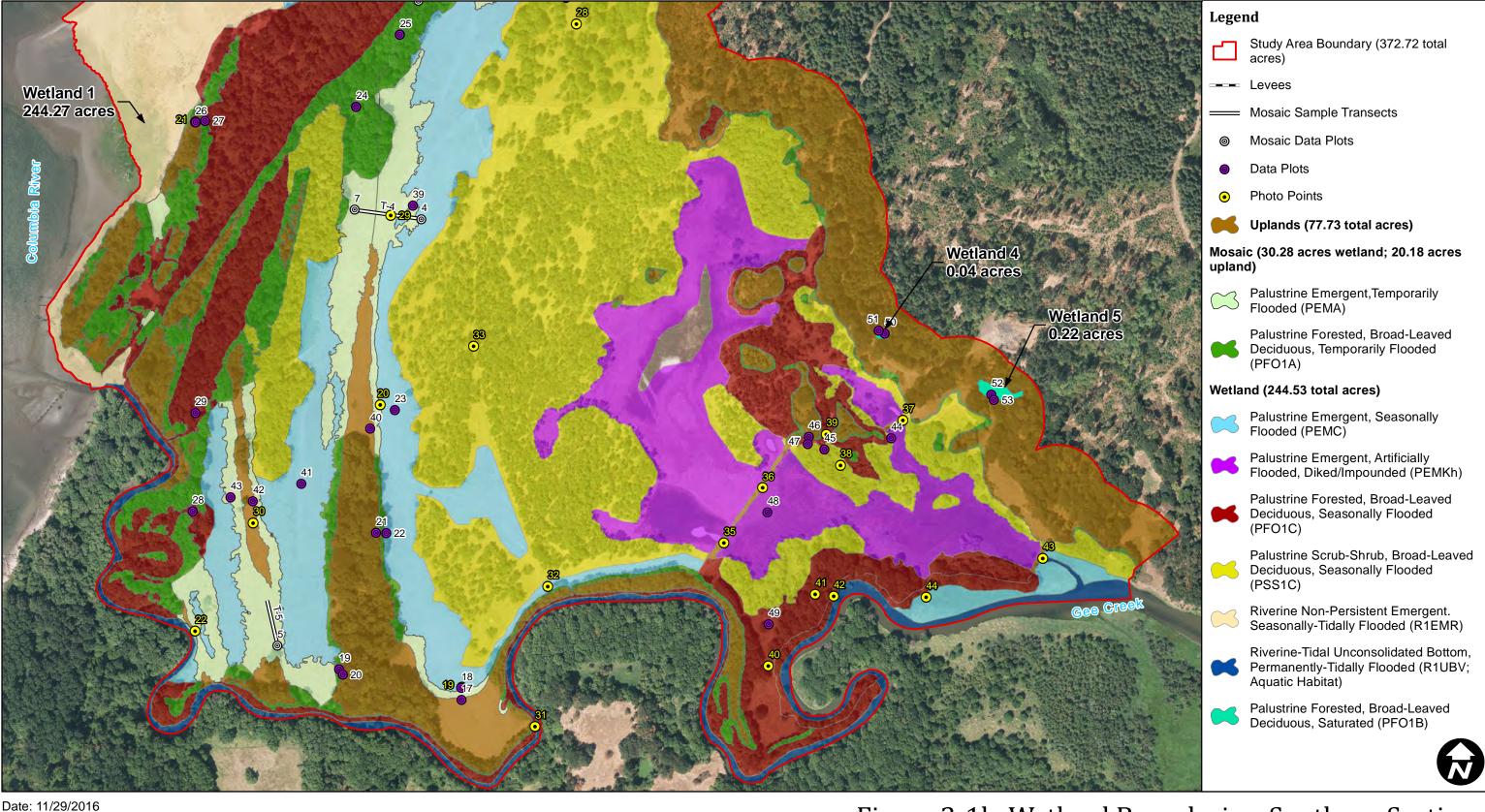
Date: 11/29/2016

Scale: 1 inch = 400 feet

Data Source: Field survey, CEG, 2014; GeoTerra, 2015

Figure 3-1a. Wetland Boundaries: Northern Section -Lewis River and Gee Creek

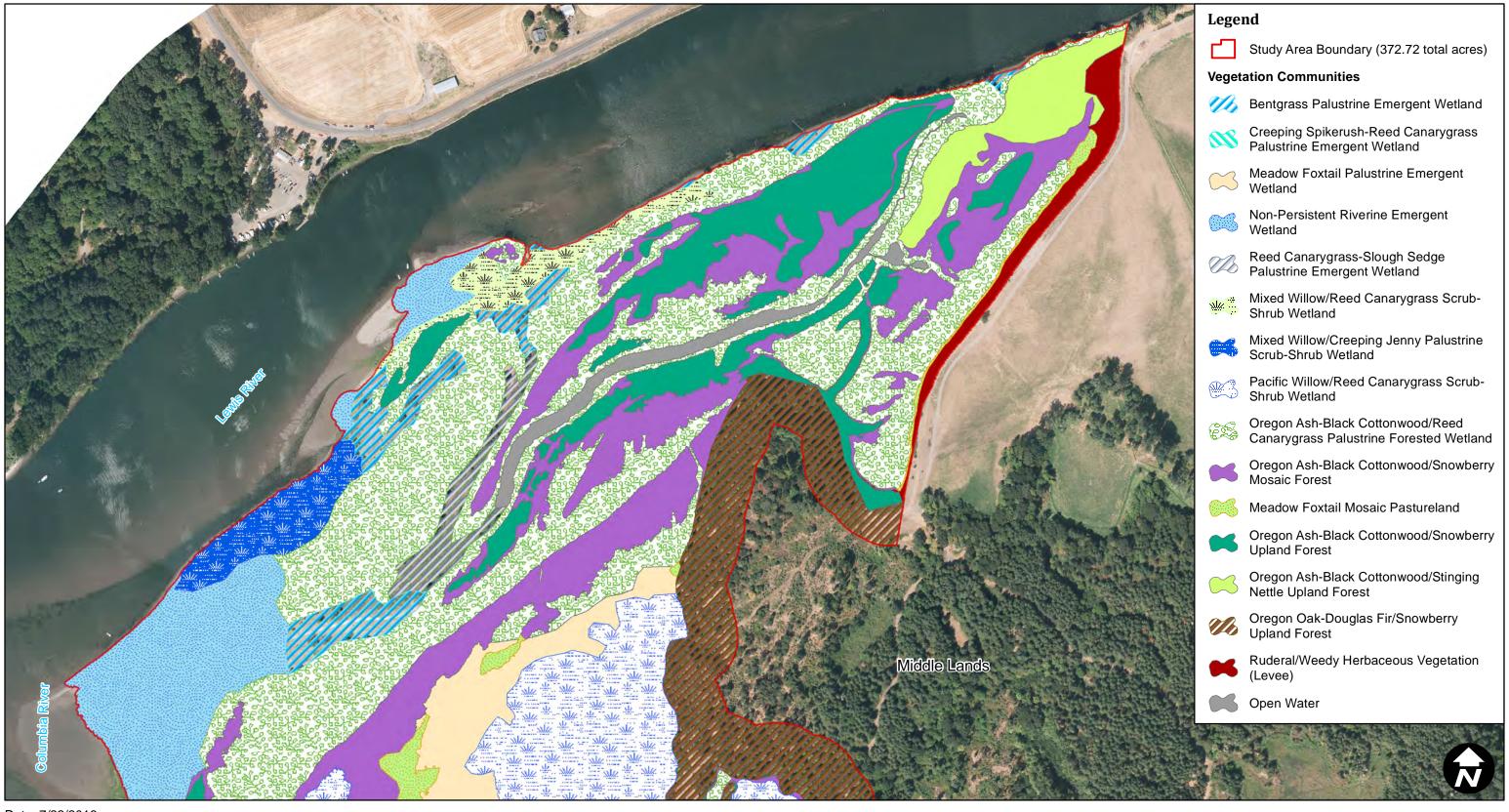




Data Source: Field survey, CEG, 2014; GeoTerra, 2015

Figure 3-1b. Wetland Boundaries: Southern Section -Lewis River and Gee Creek

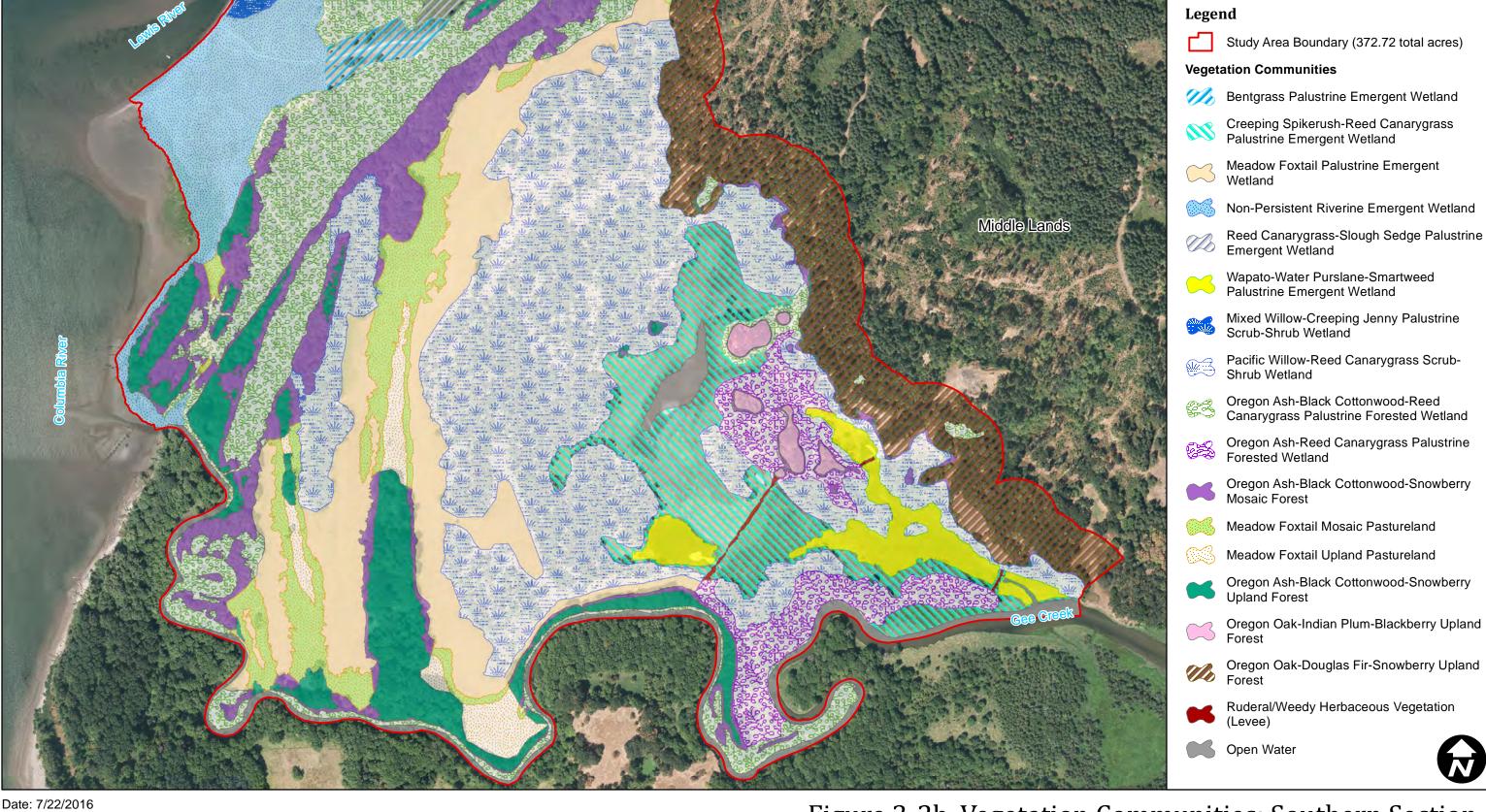




Date: 7/22/2016 Scale: 1 inch = 400 feet Data Source: Field survey, CEG, May 2014; GeoTerra, 2015

Figure 3-2a. Vegetation Communities: Northern Section - Lewis River and Gee Creek

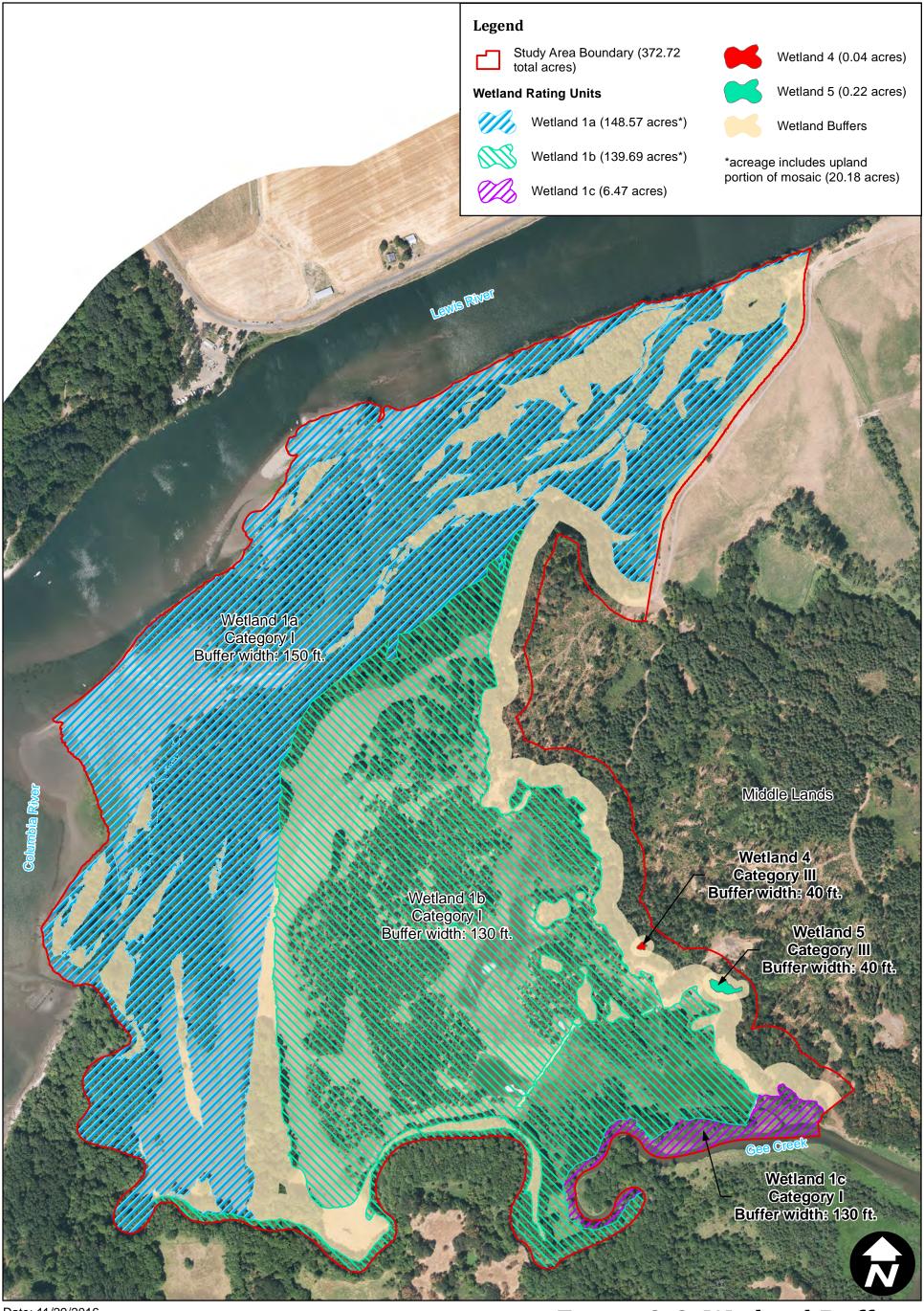




Date: 7/22/2016 Scale: 1 inch = 450 feet Data Source: Field survey, CEG, 2014; GeoTerra, 2015

Figure 3-2b. Vegetation Communities: Southern Section - Lewis River and Gee Creek





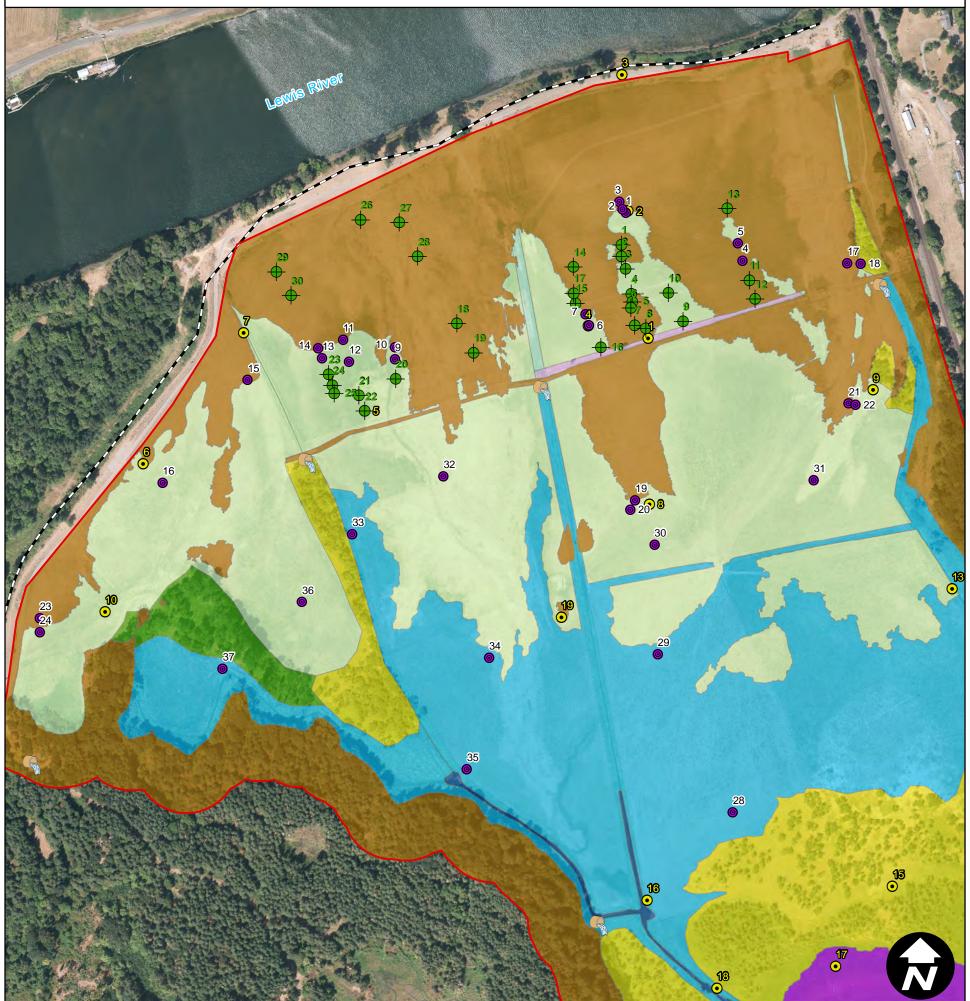
Date: 11/29/2016 Scale: 1 inch = 550 feet

Data Source: Field Survey, CEG, 2014; GeoTerra, 2015; Clark County Code, 2016

Figure 3-3. Wetland Buffers: Lewis River and Gee Creek



Legend Study Area Boundary (358.14 total acres) Palustrine Emergent, Temporarily Flooded, Drained/Ditched (PEMAd) Palustrine Emergent, Seasonally Flooded, Drained/Ditched (PEMCd) Data Plots Palustrine Emergent, Seasonally Flooded, Excavated (PEMCx) Palustrine Forested, Broadleaved Deciduous, Temporarily Flooded, **Hydrological Test Pits** Drained/Ditched (PFO1Ad) Photo Points Palustrine Scrub-Shrub, Broadleaved Deciduous, Seasonally Flooded, Drained/Ditched (PSS1Cd) Culverts Palustrine Aquatic Bed, Semipermanently Flooded, Excavated Uplands (105.75 total acres) (PABFx; Aquatic) Wetland 2 (252.39 total acres) Lacustrine Unconsolidated Bottom, Semipermanent-Tidal, Diked/Impounded (LUBTh; Aquatic) Palustrine Persistent Emergent, Semipermanently Flooded, Diked/Impounded (PEM1Fh) Lacustrine Unconsolidated Bottom, Permanent-Tidal, Diked/Impounded (LUBVh; Aquatic) Palustrine Persistent Emergent, Semipermanently Flooded, Excavated (PEM1Fx)



Date: 11/21/2016

Scale: 1 inch = 400 feet

Data Source: Field Survey, CEG, 2014; GeoTerra, 2015

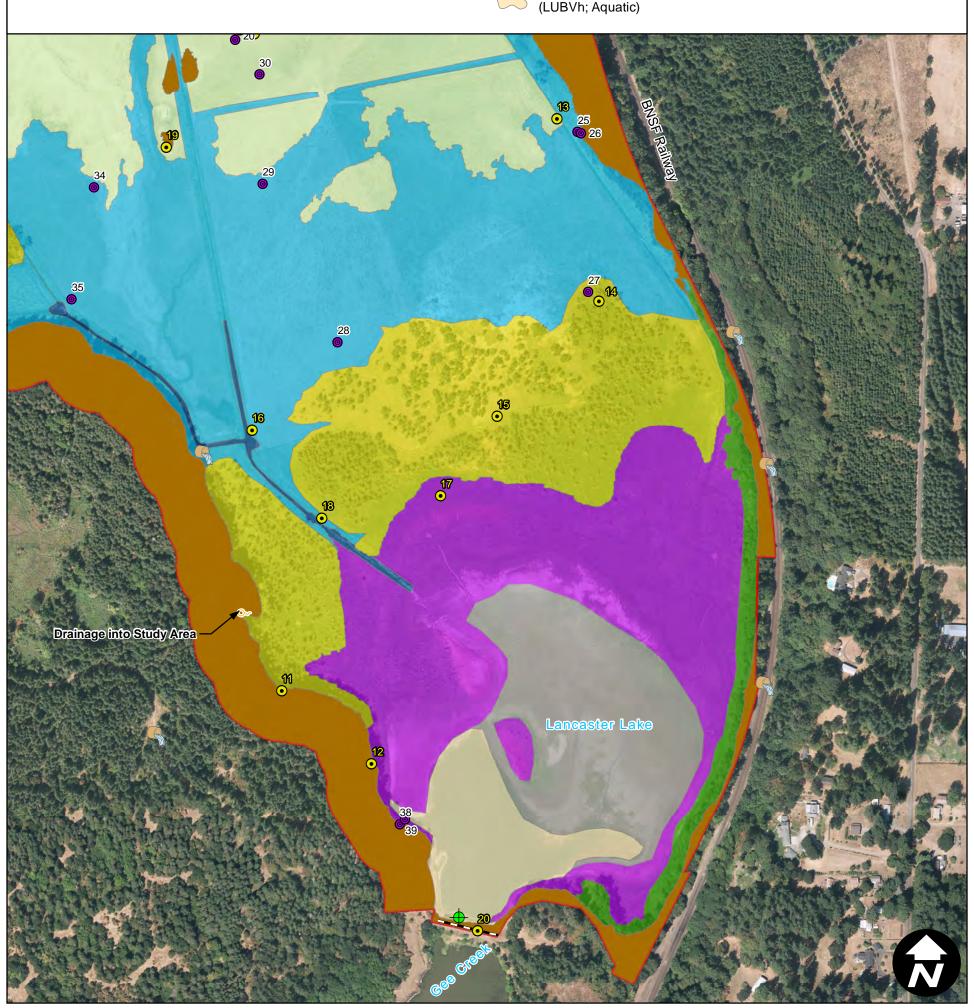
Figure 3-4a. Wetland Boundaries:Northern Section - Farm Fields and Lancaster Lake



Legend Study Area Boundary (358.14 total acres) Levees Data Plots Photo Points Culverts Drainage off hillslope Tidegate Uplands (105.75 total acres) Wetland 2 (252.39 total acres) Palustrine Persistent Emergent, Semipermanently Flooded, Diked/Impounded (PEM1Fh)



Lacustrine Unconsolidated Bottom, Permanent-Tidal, Diked/Impounded

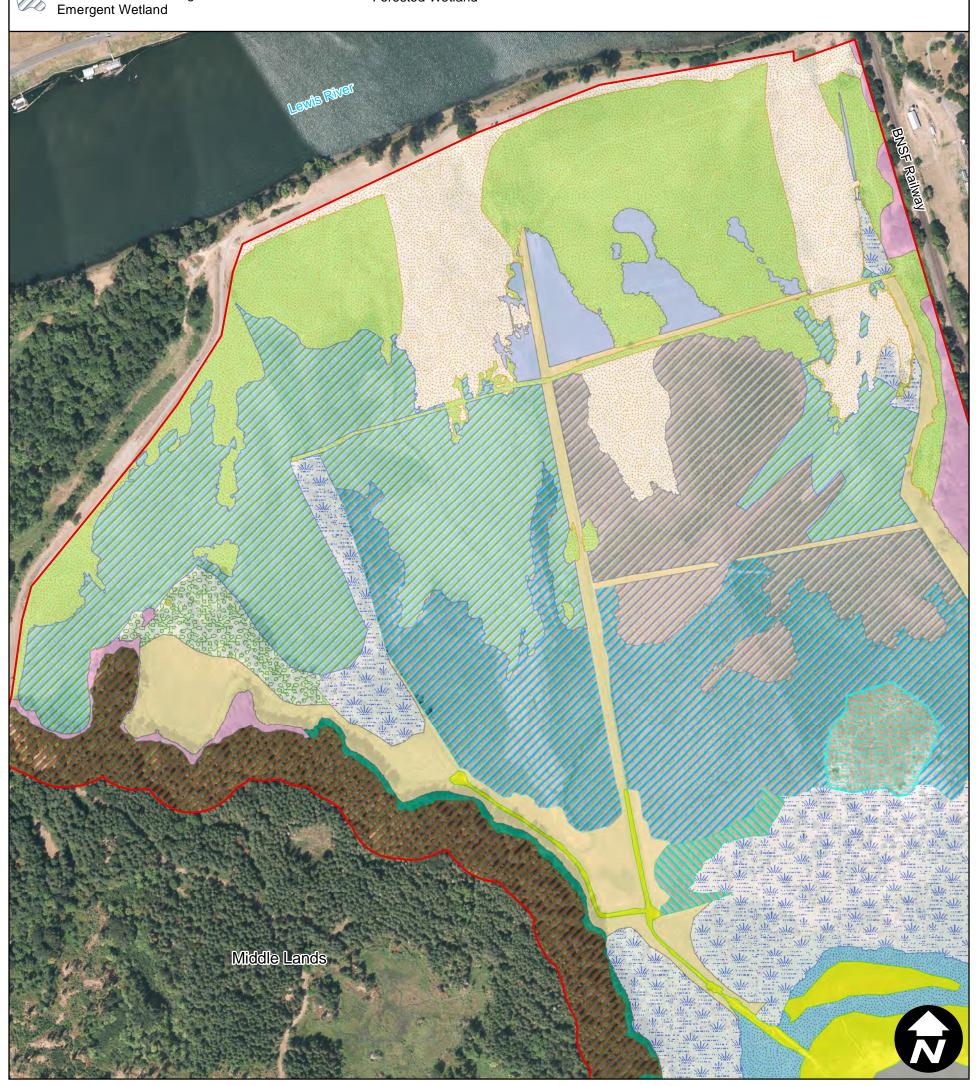


Date: 7/22/2016 Scale: 1 inch = 400 feet Data Source: Field survey, CEG, May 2014; NAIP Imagery, Washington 2009.

Figure 3-4b. Wetland Boundaries: Southern Section - Farm Fields and Lancaster Lake

CASCADE ENVIRONMENTAL GROUP

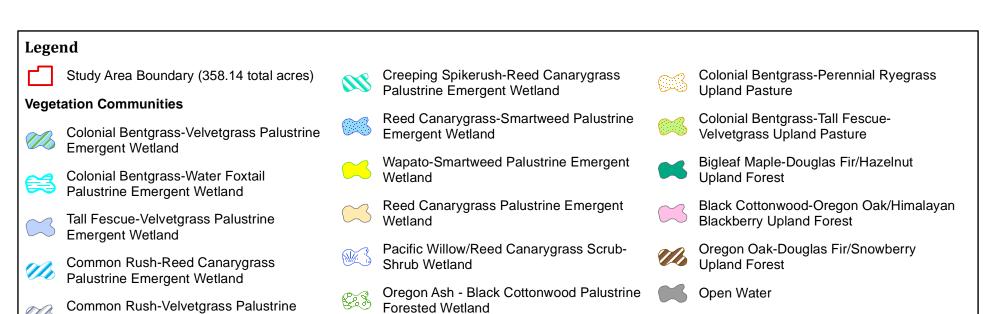


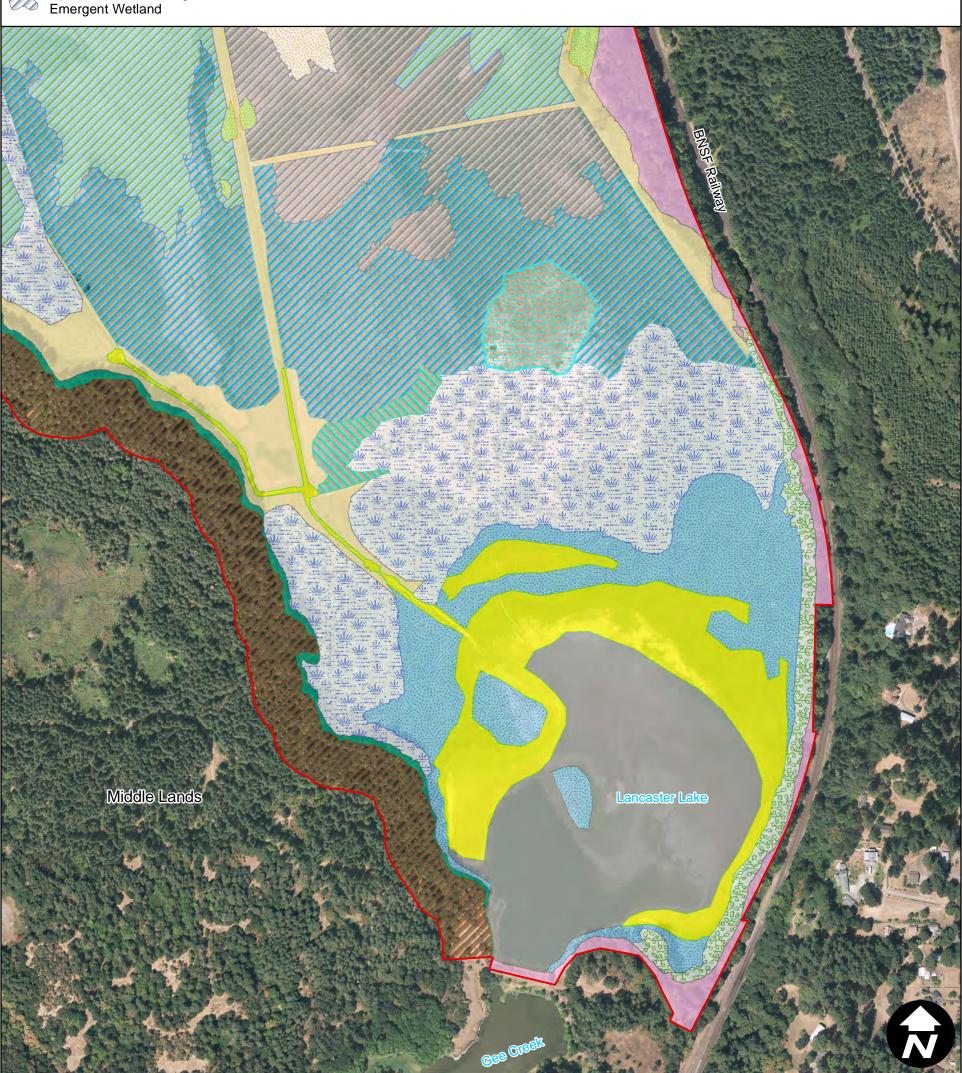


Date: 7/22/2016 Scale: 1 inch = 400 feet Data Source: Field survey, CEG, 2014; GeoTerra, 2015

Figure 3-5a. Vegetation Communities: Northern Section - Farm Fields and Lancaster Lake

CASCADE ENVIRONMENTAL GROUP

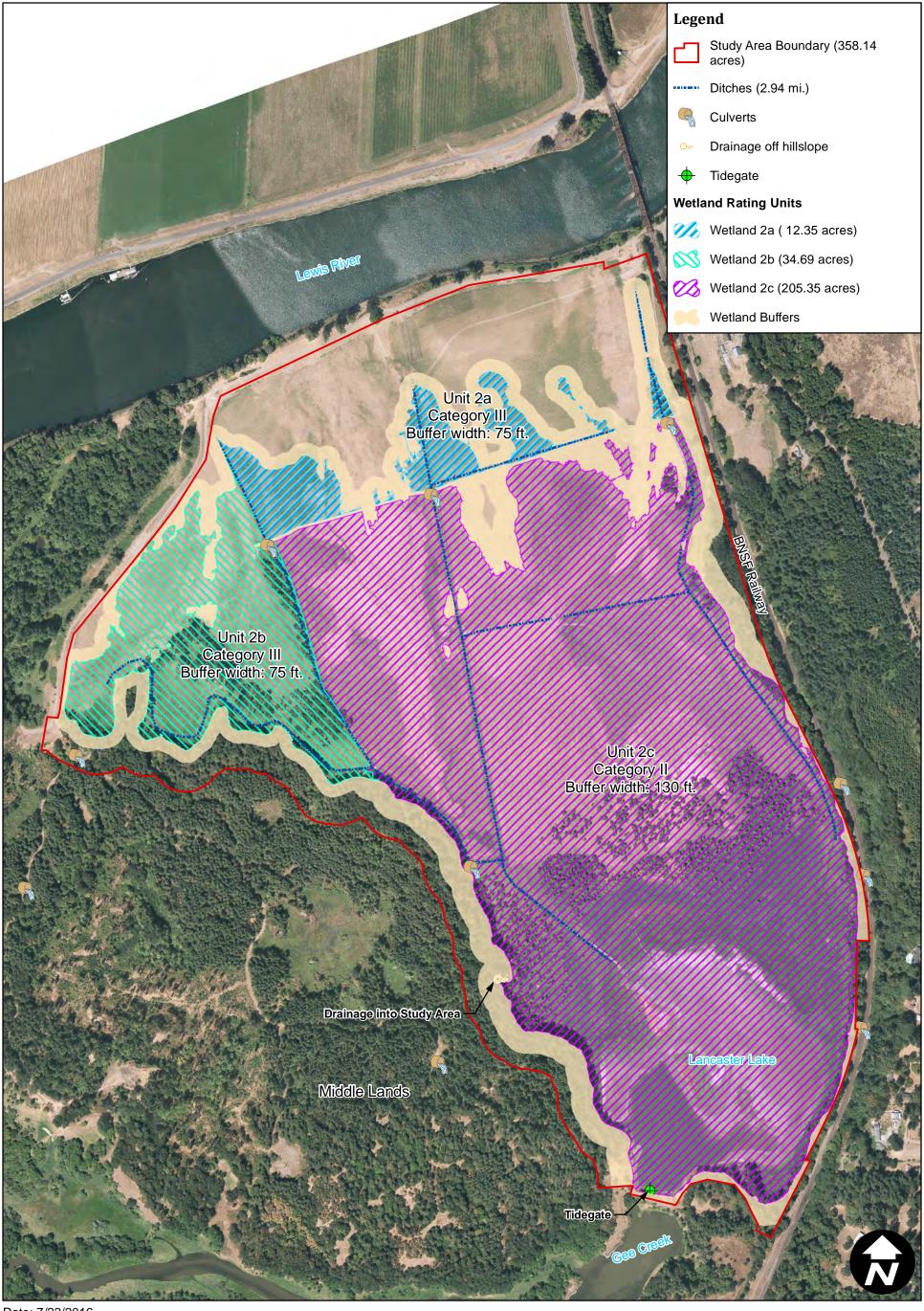




Date: 7/22/2016 Scale: 1 inch = 400 feet Data Source: Field survey, CEG, 2014; GeoTerra, 2015

Figure 3-5b. Vegetation Communities: Southern Section - Farm Fields and Lancaster Lake

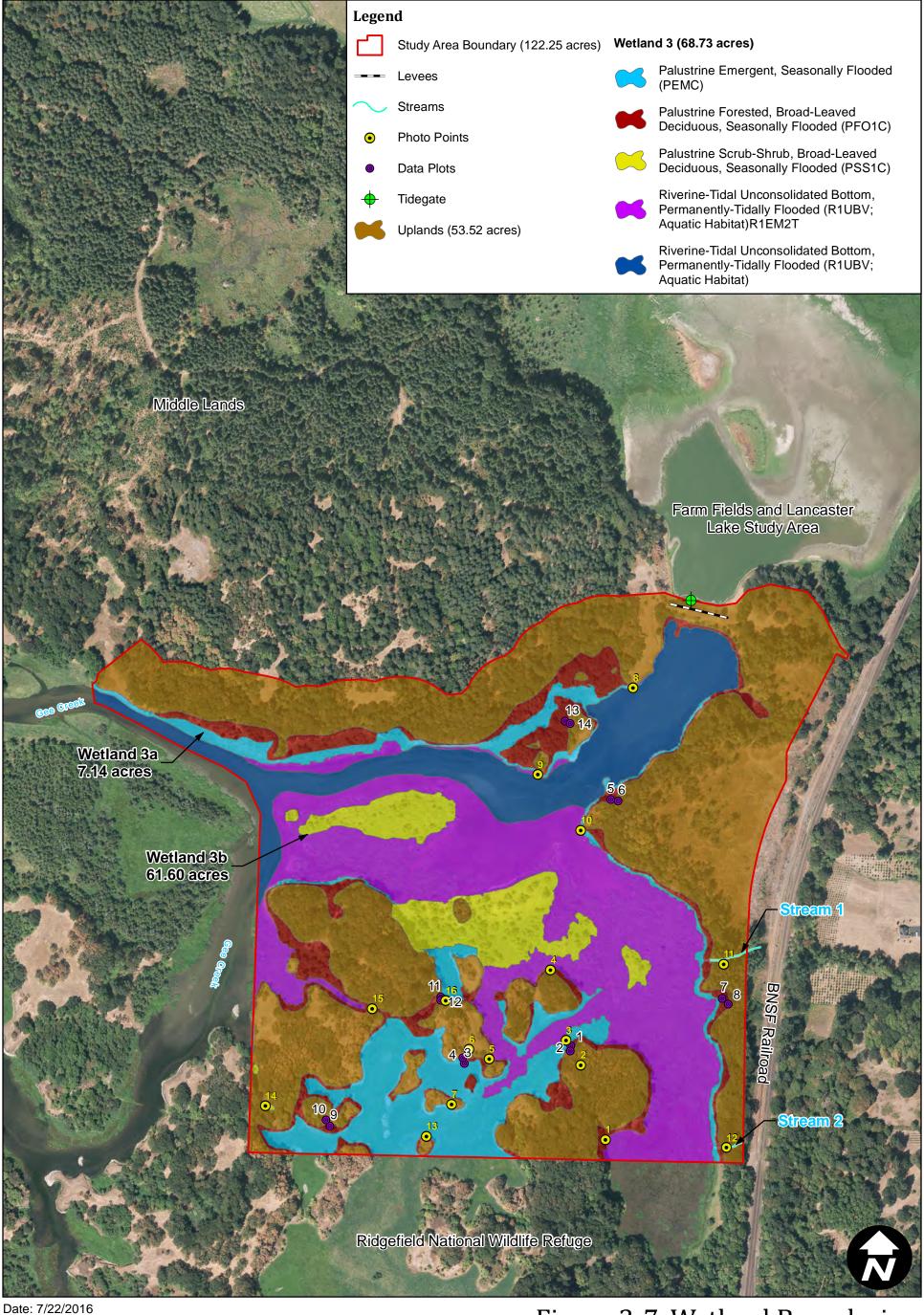




Date: 7/22/2016 Scale: 1 inch = 550 feet Data Source: Field survey, CEG, 2014; GeoTerra, 2015; Clark County Code, 2016

Figure 3-6. Wetland Buffers-Farm Fields and Lancaster Lake





Scale: 1 inch = 400 feet

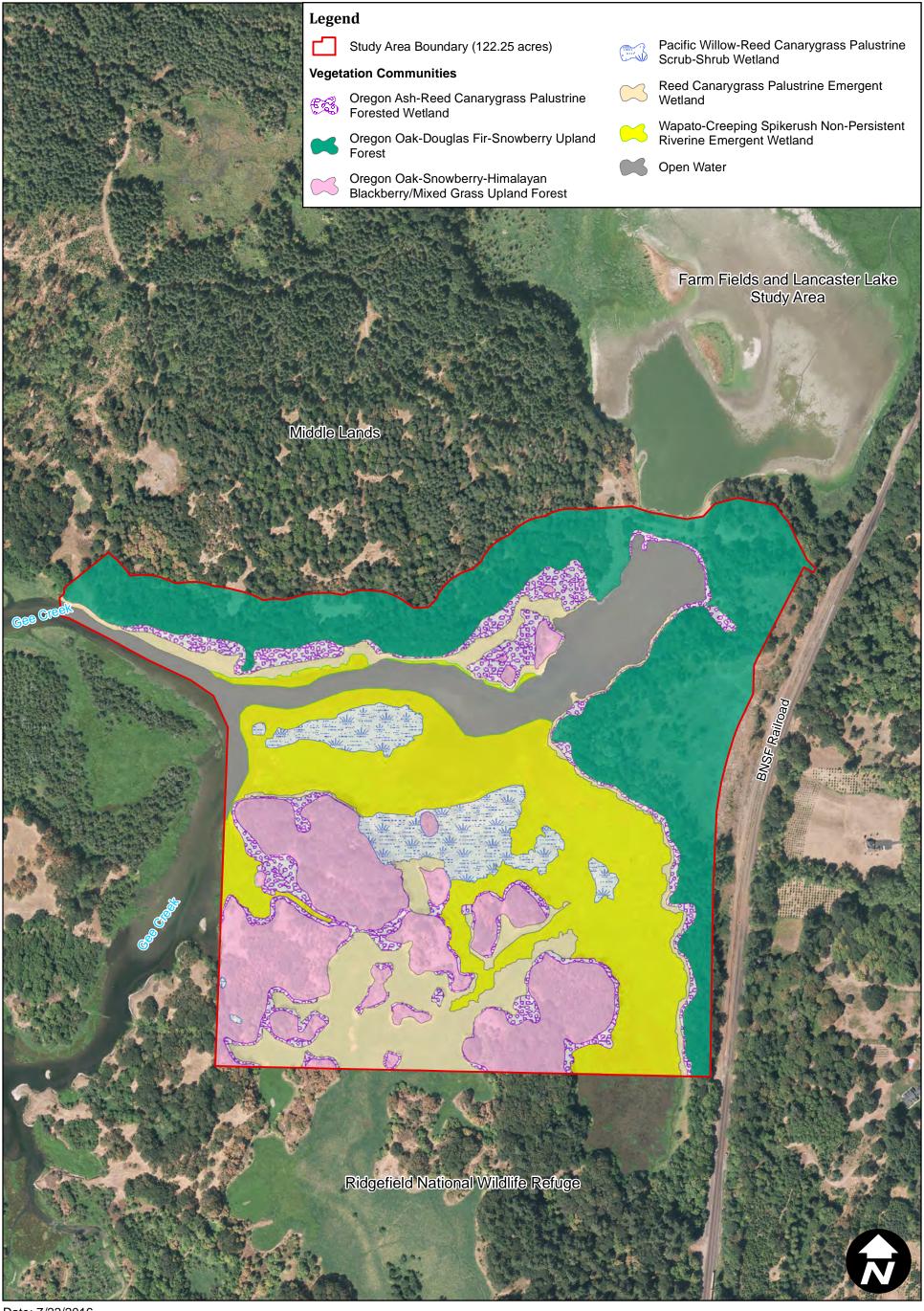
Data Source: Field survey, CEG, 2015; GeoTerrra, 2015

250

500

Figure 3-7. Wetland Boundaries: Gee Creek - South Backwater



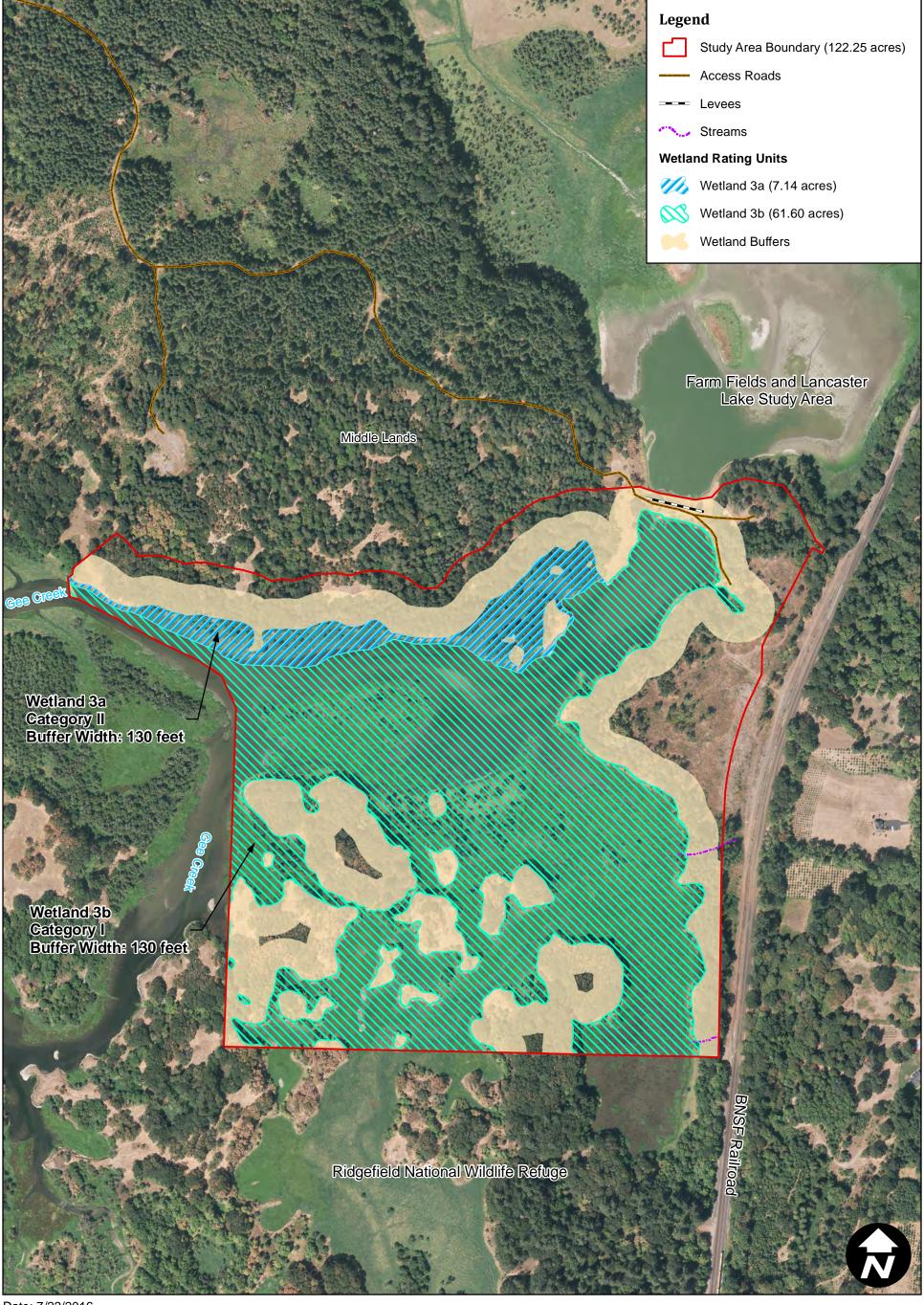


Date: 7/22/2016 Scale: 1 inch = 400 feet

Data Source: Aerial from Plas Newydd Farm, 2015; Clark County GIS, 2013.

Figure 3-8. Vegetation Communities: Gee Creek - South Backwater





Date: 7/22/2016 Scale: 1 inch = 400 feet

Data Source: Field survey, CEG, 2015; GeoTerrra, 2015

Figure 3-9. Wetland Buffer Map: Gee Creek - South Backwater



Appendices

Appendix A: Wetland Delineation And Mosaic Data Forms

Lewis River and Gee Creek Data Forms

Project/Site:	Plas Newydd Farn	n		City/County:	: Clark Cour	nty			Sam	pling Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farn	n					State:	WA	Sam	pling Point:	1
Investigator(s):	B. Haddaway, T.S	tout		Section	n, Township	, Range:	S2, T4I	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope	e (%):0%
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460	6°		Datum: WGS 84
Soil Map Unit Nam	ne: <u>Pilchuck fir</u>	ne sand					NWI Cla	ssification:	none		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		(If no,	explain in Re	marks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstanc	es" Pres	sent? Yes	X No
Are Vegetation		, or Hydrology								n Remarks.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, 1	ransec	cts, impo	rtant f	eatures, e	tc.
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	Χ	No		
Wetland Hydrology		Yes X No		Within	a welland?		•				
Remarks:	•	<u> </u>									
VEGETATION											
Trop Ctratum (III	a a saigntifia namas	N	Absolute % Cover	Dominant Species?	Indicator Status?			st workshe			
,	se scientific names.)			FAC			ACW, or F			(4)
 Populus balsa Fraxinus latifoli 		<u> </u>	<u>30</u>	Y	FACW	Total Ni	ımbar of	Dominant	_	4	(A)
 Fraxinus latifol 	lia				TACV			All Strata:	_	5	(B)
4						Percent	of Domi	nant Specie	es		
		Total Cover:	35			That Are	OBL, F	ACW, or F	AC:	80%	(A/B)
Shrub Stratum						Prevale	nce Inde	ex Worksh	oot.		
1. Malus fusca			15		FACW		tal % Co		cci.	Multiply b	v·
2. Rubus leucode	ermis		20	<u>Y</u>	FACU	OBL spe		VC1 01.	x1 =	0	<u>y.</u>
3. Cornus alba	5111110		40		FACW						
4. Crataegus dou	ualasii		5	·	FAC	FAC spe				0	
5.											
		Total Cover:	80			UPL spe			x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
Phalaris arund	linacea		20	Υ	FACW			dex = B/A =			
2. Carex obnupta	9		50	Υ	OBL						
3.						Hydrop	hytic Ve	getation In	dicator	s:	
4				-			1 - Rap	oid Test for	Hydroph	nytic Vegetat	ion
5						X	2 - Don	ninance Te	st is >50)%	
6.						#####	3 - Pre	valence Ind	exis ≤	3.0 ¹	
7							4 - Mor	phological a	Adaptat	ion1 (Provide	supporting
8							data in	Remarks o	r on a s	eparate shee	∍t)
								tland Non-\			
							Probler	matic Hydro	phytic \	egetation1 (I	Ξxplain)
11					·						
		Total Cover:	70								
Woody Vine S	<u>tratum</u>							dric soil and ss disturbed		d hydrology	must
1 2.					. ———			oo alolulue(a or pro	oicinalic.	
<u></u>		Total Cover:	0			Hydrop	-				
0/. Pa	re Ground in Herb S			otic Crust	0	Vegetat Present			Yes X	No	
Remarks:	io Orouna in Heib o	76 diatam <u>0</u> 76	OUVEL OF DI	one orași		1 163611			169 /	No	
INCINAIKS.											

OIL .									oling Point	:	
	scription: (Desc	cribe to the de	epth needed t			or or co	nfirm the abs	sence of indic	cators.)		
Depth	Mat			Redox Featu			_				
inches)	Color (mois		Color (mo	oist) %	Type ¹	Loc ²				Remarks	
-3	10 YR 3/2	100					SILT LOA				
-8	10 YR 4/2	80	7.5 YR 4/4	20	<u>C</u>	M	SANDY L				
-10	10 YR 4/2	75	7.5 YR 3/3	20	<u>C</u>	<u>M</u>	SANDY L	OAM			
0.10	40.1/D.4/0		5 YR 3/3	5	<u>C</u>	M	OANDY/I				
0-16	10 YR 4/2		7.5 YR 4/4		<u>C</u>	M	SANDY L	OAM			
			7.5 YR 4/6			M					
			5 YR 3/4	10	<u>C</u>	M					
Гуре: С=0	Concentration, D	=Depletion, RN	M=Reduced M	latrix, CS=Cove	red or Co	ated Sa	nd Grains. ² L	ocation: PL=	Pore Lining	g, M=Matrix.	
ludeia Cai	l lo dia ataua. /A	mulianta a	II I DDala		-t-d\		lu diaatau	a for Droblem	atia Uludu	.:- C-:1- ³ .	
	I Indicators: (A	pplicable to a					indicator	s for Problem	•		
	Sol (A1)			Sandy Redox (S: Stripped Matrix (luck (A10) arent Mate		
	Epipedon (A2) Histic (A3)			oamy Mucky Mi	•	(ovcon	• MI DA 1\			Remarks)	
	gen Sulfide (A4)			oamy Gleyed M	, ,	(excep	LIVILINA I)		Lxpiaiii iii	(Nemaiks)	
	ted Below Dark S			Depleted Matrix							
	Dark Surface (A			Redox Dark Surf			³ Indi	cators of hydr	onhytic ve	actation and	
	/ Muck Mineral (S	•		Depleted Dark S		`\		etland hydrolo		_	
	/ gleyed Matrix (S	*		Redox Depression		,		unless disturb			
	Layer (if prese	*	'	redux Depressio) (1 U)			unices distant	ed or prob	nematic.	
	Layer (II prese	111.									
	10c).					١,	lydric Soil Dr	esent?	V۵	e Y	No
epth (inch	les):					ŀ	lydric Soil Pr	esent?	Ye	s <u>X</u>	No
epth (inch						F	lydric Soil Pr	esent?	Ye	s <u>X</u>	No
Depth (inch marks: DROLOG	Y	tors				<u> </u>	lydric Soil Pr	esent?	Ye	s <u>X</u>	No
epth (inch marks: DROLOG Vetland H	Y ydrology Indica		fficient)			<u> </u>	lydric Soil Pr				
epth (inch marks: DROLOG Vetland Hyrimary Ind	Y ydrology Indica licators (any one			Vatar_Stained L	paves (B0			Seconda	ary Indicato	ors (2 or more	e require
epth (inch narks: DROLOG /etland Hy rimary Ind Surface	Y ydrology Indica licators (any one ce Water (A1)	indicator is su		Vater-Stained L) (excep		Seconda Water-	ary Indicato		e require
DROLOG /etland H rimary Ind Surfac High V	Y ydrology Indica licators (any one ce Water (A1) Water Table (A2)	indicator is su	V	MLRA 1, 2, 4) (excep		Seconda Water-	ary Indicato Stained Le and 4B)	ors (2 or more	e require
DROLOG Vetland Hyrimary Ind Surfac High N	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3)	indicator is su	v	MLRA 1, 2, 4 Salt Crust (B11)	A and 4B)) (excep		Seconda Water- 4A a Draina	ary Indicato Stained Le and 4B) ge Pattern:	ors (2 or more eaves (B9) (N s (B10)	e require
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3)	indicator is su	V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Inverteb	A and 4B) rates (B13) (excep		Seconda Water- 4A a Drainag Dry-Se	ary Indicato Stained Le and 4B) ge Patterns ason Wate	ors (2 or more eaves (B9) (N s (B10) er Table (C2)	e require
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water Sedim	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2	indicator is su	v s a	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebratydrogen Sulfide	A and 4B) rates (B13 e Odor (C) (excep	ot	Seconda Water- 4A a Drainaq Dry-Se Saturat	ary Indicato Stained Le and 4B) ge Pattern: ason Wate ion Visible	ors (2 or more eaves (B9) (N s (B10) er Table (C2) e on Aerial Im	e require
PROLOGIA Surface Water Sedim Drift D	ydrology Indica licators (any one be Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)	indicator is su) 2)	V S H C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizos	A and 4B) rates (B13 e Odor (Cr oheres alo) (excep	ot	Seconda Water- 4A a Draina Dry-Se Saturat X Geomo	ary Indicate Stained Le and 4B) ge Patterne ason Wate ion Visible orphic Posi	ors (2 or more eaves (B9) (N s (B10) er Table (C2) e on Aerial Im	e require
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water Sedim Drift E Algal	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4	indicator is su) 2)	V S A H C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Sulfide Dividized Rhizosp Presence of Red	and 4B) rates (B13 e Odor (Cr pheres alo) (excep)) ng Livin (C4)	ot g Roots (C3)	Seconda Water- 4A a Draina Dry-Se Saturat X Geomo	ary Indicato Stained Le and 4B) ge Pattern: ason Wate tion Visible orphic Posi v Aquitard	ors (2 or more eaves (B9) (N s (B10) er Table (C2) e on Aerial Im ition (D2) (D3)	e require
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water Sedim Drift D Algal I	yydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B3) Mat or Crust (B4) deposits (B5)	indicator is su) 2)	V S H C P	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Sulfide Dividized Rhizosp Presence of Red Recent Iron Red	A and 4B) rates (B13 e Odor (C2 oheres alc duced Iron uction in F) (excep) l) ng Livin (C4)	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N	ary Indicato Stained Le and 4B) ge Patterna ason Wate ion Visible orphic Posi v Aquitard eutral Tesi	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5)	e require
DROLOG /etland H rimary Ind	yydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (E	indicator is su 2) 36)	V S H C P R S	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Survival Survival Dividized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	Tates (B13 e Odor (C2 oheres alo luced Iron luction in Fised Plants) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicate Stained Le and 4B) ge Patterns ason Wate ion Visible orphic Posi v Aquitard eutral Tesi Ant Moun	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ds (D6) (LRF	e require
DROLOG /etland H rimary Ind Satura Water Sedim Drift D Algal I Iron D Surfac	yydrology Indicalicators (any one De Water (A1) Water Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) Meposits (B5) De Soil Cracks (Eation Visible on A	indicator is su 2) 36) Aerial Imagery	V S A H C P R S (B7) C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Sulfide Dividized Rhizosp Presence of Red Recent Iron Red	Tates (B13 e Odor (C2 oheres alo luced Iron luction in Fised Plants) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicate Stained Le and 4B) ge Patterns ason Wate ion Visible orphic Posi v Aquitard eutral Tesi Ant Moun	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5)	e require
DROLOG Vetland H rimary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A	indicator is su 2) 36) Aerial Imagery	V S A H C P R S (B7) C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Survival Survival Dividized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	Tates (B13 e Odor (C2 oheres alo luced Iron luction in Fised Plants) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicate Stained Le and 4B) ge Patterns ason Wate ion Visible orphic Posi v Aquitard eutral Tesi Ant Moun	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ds (D6) (LRF	e require
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars	ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A ely Vegetated Co	indicator is su 2) 36) Aerial Imagery oncave Surfac		MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrate Sulfide Dividized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	Tates (B13 e Odor (C7 oheres ald luced Iron luction in F sed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicate Stained Le and 4B) ge Patterns ason Wate ion Visible orphic Posi v Aquitard eutral Tesi Ant Moun	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ds (D6) (LRF	e require
DROLOG Vetland H Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Iron D Surfac Surfac Vater Sedim Drift E Algal I Surfac	yydrology Indicalicators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on Aely Vegetated Corvations: ater Present?	indicator is su 2) 36) Aerial Imagery	V S A H C P R S (B7) C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrated Survival Survival Dividized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	Tates (B13 e Odor (C7 oheres ald duced Iron uction in F sed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicate Stained Le and 4B) ge Patterns ason Wate ion Visible orphic Posi v Aquitard eutral Tesi Ant Moun	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ds (D6) (LRF	e require ILRA 1, 2
DROLOG Vetland Hyrimary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Vater table saturation I	y ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A ely Vegetated Co ervations: ater Present? Present?	indicator is su 2) 36) Aerial Imagery oncave Surface Yes	V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrate Sulfide Dividized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	Tates (B13 e Odor (C' oberes ald duced Iron uction in F sed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A)	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo Shallov X FAC-N Raised	ary Indicato Stained Le and 4B) ge Pattern: ason Wate tion Visible orphic Posi v Aquitard eutral Tesi Ant Moun leave Hum	ors (2 or more eaves (B9) (Nos (B10) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ds (D6) (LRF	e require
DROLOG DROLOG Vetland H Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Vater table Saturation I includes ca	y ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A ely Vegetated Co ervations: ater Present? Present? Present? apillary fringe)	indicator is su 2) Aerial Imagery oncave Surfac Yes Yes Yes Yes Yes	V S A H C C C C C C C C C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrate Sulfide Dividized Rhizosperesence of Red Recent Iron Red Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	Tates (B13 e Odor (C7 oheres ald uced Iron uction in Fed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A) Wetland H	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo X FAC-N Raised Frost-H	ary Indicato Stained Le and 4B) ge Pattern: ason Wate tion Visible orphic Posi v Aquitard eutral Tesi Ant Moun leave Hum	ors (2 or more eaves (B9) (No s (B10) er Table (C2) e on Aerial Im ition (D2) (D3) t (D5) ds (D6) (LRF	e require ILRA 1, 2 agery (C
Primary Ind Surfac High \ Satura Water Sedim Drift D Algal Iron D Surfac Inunda Spars Field Obse Surface Wa Vater table Saturation I includes ca	y ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A ely Vegetated Co ervations: ater Present? Present?	indicator is su 2) Aerial Imagery oncave Surfac Yes Yes Yes Yes Yes	V S A H C C C C C C C C C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrate Sulfide Dividized Rhizosperesence of Red Recent Iron Red Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	Tates (B13 e Odor (C7 oheres ald uced Iron uction in Fed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A) Wetland H	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo X FAC-N Raised Frost-H	ary Indicato Stained Le and 4B) ge Pattern: ason Wate tion Visible orphic Posi v Aquitard eutral Tesi Ant Moun leave Hum	ors (2 or more eaves (B9) (No s (B10) er Table (C2) e on Aerial Im ition (D2) (D3) t (D5) ds (D6) (LRF	e required ILRA 1, 2 agery (C
DROLOG DROLOG Vetland H Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Wa Vater table Saturation I includes ca	y ydrology Indica licators (any one ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B3) Mat or Crust (B4) deposits (B5) ce Soil Cracks (Eation Visible on A ely Vegetated Co ervations: ater Present? Present? Present? apillary fringe)	indicator is su 2) Aerial Imagery oncave Surfac Yes Yes Yes Yes Yes	V S A H C C C C C C C C C	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebrate Sulfide Dividized Rhizosperesence of Red Recent Iron Red Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	Tates (B13 e Odor (C7 oheres ald uced Iron uction in Fed Plants Remarks) (except)) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A) Wetland H	Seconda Water- 4A a Drainag Dry-Se Saturat X Geomo X FAC-N Raised Frost-H	ary Indicato Stained Le and 4B) ge Pattern: ason Wate tion Visible orphic Posi v Aquitard eutral Tesi Ant Moun leave Hum	ors (2 or more eaves (B9) (No s (B10) er Table (C2) e on Aerial Im ition (D2) (D3) t (D5) ds (D6) (LRF	e required ILRA 1, 2 agery (C

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sam	pling Date: _	4/23/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sam	pling Point:	2
Investigator(s):	B. Haddaway, T.Stor	ut		Section	n, Township	, Range:	S2, T41	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex					: (%):0%
Subregion (LRR):	Northwest Forests a	nd Coast (LRR A	Lat:	45.850967°)		-	122.77460			atum: WGS 84
Soil Map Unit Nam								ssification:			
Are climatic / hydro	ologic conditions on th				_		-			explain in Rer	
Are Vegetation	, Soil						Iormal Ci	ircumstand	es" Pres	sent? Yes	XNo
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any ar	nswers ir	n Remarks.)	
SUMMARY OF	FINDINGS - Atta	ich site map s	showing	sampling	point loca	ations, 1	transec	ts, impo	rtant f	eatures, et	tc.
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No)		ampled Area a Wetland?	a	Yes	Х	No		
Wetland Hydrology	/ Present?	Yes X No		WILLIIII	a wellanu:		-				
Remarks:											
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshe	ot:		
T Ctt (1.1	:		% Cover		Status?			nant Speci			
,	se scientific names.)							ACW, or F		•	(A)
1.				-		Total Ni	ımher of	Dominant			(A)
3.								All Strata:		2	(B)
4											(D)
···		Total Cover:						nant Speci ACW, or F		100%	(A/B)
							,				(= - /
Shrub Stratum						Prevale	nce Inde	ex Worksh	eet:		
1.						To	tal % Cov	ver of:		Multiply by	<i>/</i> :
2.						OBL spe	ecies		x1 =	0	
3						FACW s	species		x2 =	0	
4						FAC spe	ecies		_x3 =	0	
5							-				
		Total Cover:	0			UPL spe	=		_x5 =	0	
Herb Stratum	_				E4014/		_	0		0	(B)
1. Phalaris aruno			30		FACW	Preva	lence Inc	dex = B/A =		#DIV/0!	
2. Carex obnupta			70	Y	OBL FACW	I le color a co			!!		
3. Galium trifidun			20		FACW	Hyarop		getation Ir			
 Lysimachia nu Juncus effusus 			5		FACW			nd Test for ninance Te		nytic Vegetati	on
					TACV			valence Inc			
7					· 	******				on1 (Provide	supporting
		<u> </u>							•	eparate shee	
_		<u>.</u>						land Non-\		•	
-										/egetation ¹ (E	-xplain)
11.									, ,	0901411011 (2	
		Total Cover:	145								
Woody Vine S	tratum_					1Indicate	ors of hyd	dric soil an	d wetlan	d hydrology r	nust
1.	.							ss disturbe			
2.						Hydrop	hytic				
		Total Cover:	0			Vegetat	-				
% Ba	re Ground in Herb Stra	atum <u>0</u> %	Cover of Bi	otic Crust	0	Present			Yes X	No_	
Remarks:											

SUIL									pling Point:	
Profile De	scription: (Describ	e to the de	epth needed to	document th	e indicat	tor or co	onfirm the abso	ence of indic	cators.)	
Depth	Matrix			Redox Featu			_			
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc	² Texture	<u> </u>	Remarks	1
0-5	10 YR 4/1	95	7.5 YR 4/6	5	С	PL	SILTY LOA	<u> </u>		
5-16	10 YR 4/1	80	7.5 YR 4/6	10	С	PL	SILTY LOA	ΔM		
	· ·		7.5 YR 3/4	10	С	М				
							_			
							_			
¹ Type: C=	Concentration, D=De	epletion, RI	M=Reduced Mati	rix, CS=Cove	red or Co	pated Sa	and Grains. ² Lo	ocation: PL=	Pore Lining, M=Matri	x.
	il Indicators: (Appli								natic Hydric Soils ³ :	
=	sol (A1)			dy Redox (S	-				luck (A10)	
	Epipedon (A2)			ped Matrix (•		arent Material (TF2)	
	Histic (A3)			my Mucky Mi) (excer	ot MLRA 1)		Explain in Remarks)	
	ogen Sulfide (A4)			my Gleyed M			,		,	
	eted Below Dark Surf	ace (A11)		leted Matrix (,				
	Dark Surface (A12)	` ,		ox Dark Surf			³ Indic	ators of hydr	ophytic vegetation ar	nd
	y Muck Mineral (S2)			leted Dark Si		7)		=	gy must be present,	
Sand	y gleyed Matrix (S4)		Red	ox Depressio	ons (F8)		u	ınless disturb	ed or problematic.	
Restrictive	e Layer (if present):									
Type:										
Depth (inch	nes):						Hydric Soil Pre	esent?	Yes X	No
YDROLOG										
	lydrology Indicators		£6:-:+\					0		
	dicators (any one indi	icator is su		or Ctained L	001/00 /DC)) (avaa			ary Indicators (2 or m	
	ce Water (A1)			er-Stained Le I LRA 1. 2. 4	`	, ,	ept		Stained Leaves (B9)	(WILKA 1, 2,
	Water Table (A2)			, ,	anu 4D))	•		and 4B) ge Patterns (B10)	
	ation (A3) r Marks (B1)			Crust (B11) atic Invertebr	ratos (R13	3)	•		ge Fallerris (BT0) ason Water Table (C	2)
	nent Deposits (B2)			rogen Sulfide	•	•			tion Visible on Aerial	*
	Deposits (B3)			_			ng Roots (C3)	-	orphic Position (D2)	imagery (C3)
	Mat or Crust (B4)			sence of Red		-	ng roots (00)		v Aquitard (D3)	
	Deposits (B5)			ent Iron Red		` '	Soils (C6)		eutral Test (D5)	
	ce Soil Cracks (B6)			nted or Stress					Ant Mounds (D6) (L	RR A)
	lation Visible on Aeria	al Imagery		er (Explain in					leave Hummocks (D	•
	sely Vegetated Conc	• •	· /	(p		-,	•		(=	- /
Field Obse			- (- /							
	ater Present? Ye	es	No X D	epth (inches)	:					
Water table		es X		epth (inches)		9				
Saturation	Present? Yeapillary fringe)	es X	No D	epth (inches)	:	0	Wetland Hy	drology Pre	esent? Yes X	No
•	corded Data (stream	gauge, mo	nitoring well, aer	ial photos, pr	revious in	spection	ns), if available:			
	50.404	gaage,e	g, a.s.	.ш. р. то соо, р.		ороско	,,			
Remarks:										

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	3
Investigator(s):	B. Haddaway, T.Sto	ut		Section	n, Township	, Range:	S2, T41	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope (%):	0%
Subregion (LRR):	Northwest Forests a	nd Coast (LRR A)) Lat:	45.850967°	1		Long:	122.77460	3°	_ Datum:	WGS 84
Soil Map Unit Nam	ne: Water						NWI Cla	ssification:			
•	ologic conditions on th	• •	-		Yes 2		-			n in Remarks	
	, Soil			significantly						Yes X	_No
Are Vegetation SUMMARY OF	, Soil, Soil			naturally pro				-	swers in Ren		
Hydrophytic Vegeta Hydric Soil Present		Yes X No			ampled Are		Yes	X	No		
Wetland Hydrology		Yes X No		within a	a Wetland?						
Remarks:	/ I Tesent:	103 <u>X</u> 110									
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	∍t:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	1		nant Specie			
1								ACW, or FA	1C.	1	_(A)
2.								Dominant All Strata:			
3.						Species	ACIOSS /	Ali Siraia.		1	_(B)
4		Total Cover:				1		nant Specie ACW, or FA		100%	(A/B)
Shrub Stratum 1 2 3 4 5 Herb Stratum 1Agrostis stolon 2Equisetum arv 3Plantago lance 4	rense	Total Cover:	0 		FAC FACU	FACW s FAC spe FACU s UPL spe Column Preva	tal % Coveries species pecies pecies pecies rotals: lence Incohytic Versions 1 - Rap	0 lex = B/A = getation In id Test for I	x1 =	oultiply by: 0 0 0 0 0 0 0 0 IV/0!	- - - - (B)
6						X #####	3 - Prev 4 - Morp data in 5 - Wet	Remarks o land Non-V	ex is ≤3.0 ¹ Adaptation1 (l r on a separa ′ascular Plant	•	
11.		Total Cover:	110								
Woody Vine S	<u>tratum</u>	. 5.6 50701.							I wetland hyd d or problema		
2.						Hvdron	hytic				·
		Total Cover:				Vegetat	ion				
% Baı	re Ground in Herb Str	atum <u>0</u> %	Cover of Bi	otic Crust	0	Present	t?		Yes X	No	
2. % Bar Remarks:	re Ground in Herb Str			otic Crust	0	_	ion		Yes X	No	

SOIL								Sampling Po	oint:	3
Profile De	escription: (Describe	to the de	pth needed to do	cument th	e indicat	or or co	onfirm the absence	of indicators.))	
Depth	Matrix		Re	edox Featu	ıres					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture		Remarks	
0-4	10 YR 4/2	90	7.5 YR 4/6	10	С	PL	SANDY LOAM			
4-16	10 YR 4/2	93	10 YR 4/4	7	С	М	SAND			
¹ Type: C=	Concentration, D=Dep	letion, RN	/I=Reduced Matrix,	CS=Cove	red or Co	ated Sa	nd Grains. ² Locatio	on: PL=Pore Lir	ning, M=Matrix.	
Hydric Sc	il Indicators: (Applic	able to a	II I DDe unlose of	horwiso n	otod)		Indicators for I	Problematic Us	rdric Soile ³ :	
	osol (A1)	abie io a		Redox (S			ilidicators for i	2 cm Muck (A1		
	Epipedon (A2)			ed Matrix (Red Parent Ma		
	K Histic (A3)) (avcan	ot MLRA 1)	Other (Explain		
	ogen Sulfide (A4)			Gleyed M	` '	•		Otrici (Explain	iii (Ciliano)	
	eted Below Dark Surfa	ce (A11)		ed Matrix (,				
	Dark Surface (A12)	00 (/ 1. 1.)		Dark Surf			³ Indicators	s of hydrophytic	vegetation and	1
	ly Muck Mineral (S2)			ed Dark Si		7)		hydrology mus	_	
	ly gleyed Matrix (S4)			Depression		,		s disturbed or pr		
	e Layer (if present):			.,	- (- /					
Type:	, , ,									
Depth (inc	hes):						Hydric Soil Present	i ?	Yes X	No
Remarks:							<u> </u>			
										_
HYDROLOG	SY .									
Wetland H	Hydrology Indicators:									
Primary In	dicators (any one indic	ator is su	ficient)					Secondary Indic	ators (2 or mor	re required)
	ace Water (A1)			Stained Le					Leaves (B9) (N	VILRA 1, 2,
	Water Table (A2)		MLF	RA 1, 2, 4A	and 4B))		4A and 4B))	
	ration (A3)			rust (B11)				Drainage Patte		
<u> </u>	er Marks (B1)			c Invertebr				-	ater Table (C2)	
<u> </u>	ment Deposits (B2)			gen Sulfide			X		ble on Aerial Im	nagery (C9)
	Deposits (B3)					_	ng Roots (C3) X	Geomorphic Po		
	Mat or Crust (B4)			ce of Red		` '		Shallow Aquita		
	Deposits (B5)			t Iron Redu				FAC-Neutral T		5 4\
	ace Soil Cracks (B6)	las a second		d or Stress					ounds (D6) (LRI	
	dation Visible on Aerial			Explain in	Remarks	5)		Frost-Heave H	lummocks (D7)	
	sely Vegetated Conca	ve Suriace	e (B8)							
	ervations: /ater Present? Yes	2	No X Dept	th (inches)						
	e Present? Yes			th (inches)						
Saturation	Present? Yes	3		th (inches)			Wetland Hydrol	ogy Present?	Yes X	No
•	capillary fringe)		. 20							
Describe Re	corded Data (stream g	auge, mo	nitoring well, aerial	pnotos, pr	evious in:	spection	ıs), it available:			
Remarks:										

Project/Site:	Plas Newydd Farm		City/County:	Clark Cour	County Sampling Date: 4/23					4/23/2014	
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	4
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	S2, T4N	l, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_			_				0%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°			_		6°	_ Datum:	: WGS 84
Soil Map Unit Nam								ssification:			
Are climatic / hydro	ologic conditions on t				·-		_		(If no, explain		
Are Vegetation	, Soil										_No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	lain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations,	transec	ts, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No)		ampled Are a Wetland?		Yes	X	No		
Wetland Hydrology	y Present?			WILLIIII	a wellanu:		_				
Remarks:	•			<u> </u>							
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	et:		
Tree Stratum (11)	se scientific names.)		% Cover		Status?	Numbe	of Domii	nant Specie	es		
1.	se scientine names.				· ——			ACW, or FA		1	(A)
					· ———	Total N	umber of	Dominant			_('')
3.					• ——•			All Strata:		1	(B)
4.					• ——•	Percent	of Domir	nant Specie			- ` '
		Total Cover:	0					ACW, or FA		100%	_(A/B)
Shrub Stratum 1.							ence Inde	ex Worksho		Itiply by:	
2.						OBL sp	ecies		x1 =	0	
3						FACW	species _		x2 =	0	_
4						FAC sp	ecies		x3 =	0	_
5						FACU s	pecies _		x4 =	0	_
		Total Cover:	0			UPL sp	_		x5 =	0	_
Herb Stratum								0		0	_(B)
1. Phalaris arund			75	Υ	FACW	Preva	lence Ind	ex = B/A =	#DI	V/0!	_
2. Solidago cana			2		FACU						
3. Rumex crispus			2		FAC	Hydrop		getation In			
4. Lysimachia nu			10		FACW				Hydrophytic V	egetation	
•						X		inance Tes alence Ind			
7						#####				Dravida avam	a mtima
•					· 			-	Adaptation1 (F r on a separat		orung
^					· 				ascular Plant	•	
						-			asculai Flaiti phytic Vegeta		n)
					· 		Problem	ialic Hyuro	priylic vegela	ııon (⊏xpıaıı	11)
11		Total Cover:	89		· ———						
Woody Vine S									wetland hydr		
2.							· ·		•		
		Total Cover:	0		· ——	Hydrop	-				
% Ra	re Ground in Herb St				0	Vegeta Presen			Yes X	No	
Remarks:	Cround in Ficip Of		20,01 01 01	-10 01431					<u>/</u>		
ixciliains.											

SUIL									Sampling Poir	ıt:	
Profile Des	scription: (Descri	be to the de	epth needed to	document th	e indicat	tor or co	nfirm the ab	sence of	indicators.)		
Depth	Matrix			Redox Featu	ıres		_				
(inches)	Color (moist)	%	Color (mois	st) %	Type ¹	Loc ²	Textur	e		Remarks	
0-2	10 YR 4/2	80	7.5 YR 4/4	15	С	М	SANDY L	OAM			
			7.5 YR 4/4	5	С	PL	_				
2-4	10 YR 4/2	100					SAND				
4-11	10 YR 4/2	75	7.5 YR 4/4	25	С	M	SANDY L	OAM			
11-16	10 YR 4/2	100				_	SAND				
						_	_				
							_				
¹ Type: C=0	Concentration, D=0	Depletion, RM	M=Reduced Ma	trix, CS=Cove	red or Co	oated Sar	nd Grains. ² L	ocation:	PL=Pore Lini	ng, M=Matrix.	
	I Indicators: (App	-							blematic Hyd		
-	sol (A1)			ndy Redox (S	-				cm Muck (A10		
	Epipedon (A2)			ipped Matrix (S					ed Parent Mat		
	Histic (A3)			amy Mucky Mi) (except	t MLRA 1)		ther (Explain ir		
	gen Sulfide (A4)			amy Gleyed M	•		,		` '	,	
	ted Below Dark Su	ırface (A11)		pleted Matrix (•					
	Dark Surface (A12	, ,		dox Dark Surf	,		³ Ind	icators of	hydrophytic v	egetation and	
	y Muck Mineral (S2			pleted Dark Si		7)			drology must l	-	
Sandy	y gleyed Matrix (S4	.)	Re	dox Depressio	ns (F8)			unless di	sturbed or pro	blematic.	
Restrictive	Layer (if present):									
Type:								_			
Depth (inch	nes):					l H	lydric Soil Pr	esent?	Y	es X	No
HYDROLOG											
	ydrology Indicato										
	licators (any one in	dicator is su							condary Indica		
	ce Water (A1)			ater-Stained Le	•	, · •	ot	W	ater-Stained L	eaves (B9) (N	/ILRA 1, 2,
	Water Table (A2)			MLRA 1, 2, 4A	and 4B)			4A and 4B)		
	ation (A3)			It Crust (B11)					rainage Patter		
	r Marks (B1)			uatic Invertebr					ry-Season Wa	` '	
	nent Deposits (B2)			drogen Sulfide			D (00)		aturation Visibl		nagery (C9)
	Deposits (B3)			idized Rhizosp		_	g Roots (C3)		eomorphic Pos	, ,	
	Mat or Crust (B4)			esence of Red		` '	Seile (CC)		nallow Aquitaro		
	eposits (B5)	١		cent Iron Redu					AC-Neutral Te	` '	D A\
	ce Soil Cracks (B6)	•		unted or Stress			.KK A)		aised Ant Mou	. , ,	•
	ation Visible on Ae ely Vegetated Con			her (Explain in	Remarks	5)		— "	ost-Heave Hu	IIIIIOCKS (D7)	
		cave Suriaci	e (bo)				ı				
Field Obse Surface Wa		Yes	No X I	Depth (inches)	:						
Water table		Yes		Depth (inches)							
Saturation I		Yes	No X I	Depth (inches)	: <u> </u>		Wetland F	lydrolog	y Present?	Yes X	No
	apillary fringe) corded Data (strear	m dalide mo	nitoring well a	arial photos pr	evious in	enections	s) if available				
Describe ivec	Joined Data (Streat	ii gauge, iiio	illitoring well, at	siiai piiotos, pi	evious iii	ispections	s), ii avaliable	•			
Remarks:											

Project/Site:	Plas Newydd Fai	rm		City/County	: Clark Cour	nty			Sam	npling Date:	4/23/2014
Applicant/Owner:	Plas Newydd Fai	rm					State:	WA	Sam	npling Point:	5
Investigator(s):	B. Haddaway, T.	Stout		Sectio	n, Township	, Range:	S2, T4	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope ((%):0%
Subregion (LRR):	Northwest Fores	ts and Coast (LRR A	Lat:	45.850967	0		Long:	122.7746	06°	Da	tum: WGS 84
Soil Map Unit Nam	ne: Pilchuck f	fine sand					NWI Cla	ssification	: R1USF	₹	
Are climatic / hydro	ologic conditions o	n the site typical for t	nis time of y	/ear?	Yes 2	X	No		(If no, e	explain in Rem	arks)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	lormal C	ircumstan	ces" Pres	sent? Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers i	n Remarks.)	
SUMMARY OF	FINDINGS - A	Attach site map s	showing	sampling	point loca	ations, t	ransec	ts, imp	ortant f	eatures, etc	>.
Hydrophytic Veget	ation Present?	YesNo	X								
Hydric Soil Presen		Yes No	Х		ampled Are a Wetland?		Yes		No X		
Wetland Hydrolog	y Present?	Yes No	Χ	Within	a welland:		•				
Remarks:	-										
VEGETATION			Abaduta	Dominant	Indicator	Domina	noo Too	t worksh	not:		
Tree Stratum (U	se scientific names	s.)	Absolute % Cover	Dominant Species?	Indicator Status?	Number	of Domi	nant Spec	cies		
1. Populus balsa	mifera	·	15	Υ	FAC	That Are	OBL, F	ACW, or I	FAC:	2	(A)
2. Quercus garry	⁄ana		15	Υ	FACU	Total Nu	ımber of	Dominan	t		
3						Species	Across	All Strata:		5	(B)
4						Percent	of Domi	nant Spec	ies		
		Total Cover:	30			That Are	OBL, F	ACW, or I	FAC:	40%	(A/B)
Shrub Stratum			00	V	FACU			ex Works	heet:	N A . I A in la . In	
 Rubus armeni Rosa nutkana 			60 15		FAC	OBL spe	al % Co	ver or:	x1 =	Multiply by:	
3. <u>Rosa nutkana</u>			15	<u>r</u>	170	FACW s			x1 x2 =	0	
4.		.				FAC spe			^Z 	150	
5.					- ——	FACU s			x4 =	300	
		Total Cover:	75			UPL spe			x5 =	0.05	
Herb Stratum						Column	Totals:	125.01	(A)	450.05	(B)
Agrostis stoloi	nifera		20	Υ	FAC			dex = B/A			
2. Solidago cana	ndensis		0.01		FACU						
3. Clarkia gracilis	3		0.01		UPL	Hydrop	hytic Ve	getation l	ndicator	s:	
4							1 - Rap	id Test fo	r Hydroph	nytic Vegetatio	n
5								ninance T			
6								valence In			
7									•	ion1 (Provide s	
										eparate sheet))
								land Non-			
				-			Probler	natic Hydi	rophytic \	/egetation¹ (Ex	(plain)
11		Total Cavari	20.02								
Moody Vino S	'tratum	Total Cover:	20.02			11		daia a a il a a		al le , al a a l a a	
Woody Vine S 1.	otratum							aric soli ar ss disturb		id hydrology m blematic.	ust
2.									J. P.O.		
		Total Cover:	0	-		Hydrop Vegetat					
% Ba	re Ground in Herb			otic Crust	0	Present			Yes	No X	, .
Remarks:											

SOIL										;	Sampling Po	int:	
Profile Des	cription: (Descr	ibe to the de	pth neede	ed to doc	ument th	e indicat	or or co	onfi	rm the abse	ence of	indicators.)		
Depth	Matrix	(Re	dox Featu	ires					-		
(inches)	Color (moist)		Color (%	Type ¹	Loc²	2	Texture	•		Remarks	
0-3	10 YR 3/2	100							SILT LOAN				
3-5	10 YR 4/2	96	10 YR 4/3	3	3	С	M		SILT LOAN				
			10 YR 4/6		1	С	M						
5-10	10 YR 4/2	100							SILT LOAN	Л			
10-16	10 YR 4/1	100							SAND				
¹ Type: C=C	Concentration, D=I	Depletion PA	1-Peduce	d Matrix (CS-Cove	red or Co	ated Sa	and	Grains ² Lo	eation:	DI -Doro I ir	ing M-Matrix	,
							aleu Sa	ariu					Λ.
-	I Indicators: (App	plicable to a	II LRRs, ui			-			Indicators		-	dric Soils ³ :	
	sol (A1)			-	Redox (S5						m Muck (A1		
	Epipedon (A2)				d Matrix (S	•	,					aterial (TF2)	
	Histic (A3)			-	Mucky Mi		•	ot M	ILRA 1)	Ot	her (Explain	in Remarks)	
	gen Sulfide (A4)			-	Gleyed M								
	ted Below Dark Su				ed Matrix (2				
	Dark Surface (A12				Dark Surfa	, ,						vegetation an	d
	Muck Mineral (S2				ed Dark Su		7)			-		t be present,	
	gleyed Matrix (S4	•		Redox I	Depressio	ns (F8)			u	ınless di	sturbed or p	roblematic.	
Restrictive	Layer (if present	t):											
Type:												_	
Depth (inch	es):							Hyc	Iric Soil Pre	sent?		Yes	No X
HYDROLOGY Wetland Hy	<u>Y</u> ydrology Indicato	ors:											
-	icators (any one ir		fficient)							Sec	ondary Indic	ators (2 or mo	ore required)
	ce Water (A1)		,	Water-9	Stained Le	eaves (B9) (exce	pt				Leaves (B9) (
	Vater Table (A2)				A 1, 2, 4A	•	, ,	•	•		4A and 4B		, , ,
	ation (A3)				ust (B11)	ŕ			•	 Dr	ainage Patte		
Water	Marks (B1)			Aquatic	Invertebr	ates (B13	3)		•	 Dr	y-Season W	ater Table (C2	2)
Sedim	ent Deposits (B2)			Hydroge	en Sulfide	Odor (C	1)		' <u>-</u>	Sa	turation Visi	ble on Aerial I	magery (C9)
Drift D	eposits (B3)			Oxidize	d Rhizosp	heres alc	ng Livi	ng F	Roots (C3)	Ge	eomorphic P	osition (D2)	
Algal I	Mat or Crust (B4)			Presen	ce of Red	uced Iron	(C4)		-	Sh	allow Aquita	rd (D3)	
Iron D	eposits (B5)			Recent	Iron Redu	uction in F	Plowed	Soil	s (C6)	FA	C-Neutral T	est (D5)	
Surfac	ce Soil Cracks (B6)		Stunted	or Stress	ed Plants	s (D1) (I	LRF	R A)	Ra	ised Ant Mo	unds (D6) (LF	RR A)
Inunda	ation Visible on Ae	rial Imagery	(B7)	Other (F	Explain in	Remarks)		-	Fr	ost-Heave H	ummocks (D7	7)
Sparse	ely Vegetated Cor	ncave Surface	e (B8)										
Field Obse			NI. V	Б									
Surface Wa Water table		Yes Yes	No X No X		n (inches) n (inches)								
Saturation F		Yes	No X		i (inches)				Wetland Hy	/drolog	/ Present?	Yes	No X
	apillary fringe)			_ '	, ,					·	,		
Describe Rec	orded Data (strear	m gauge, mo	nitoring we	ell, aerial p	ohotos, pr	evious ins	spection	ns),	if available:				
Remarks:													
. tomanto.													

Project/Site:	Plas Newydd Farn	า		City/County:	Clark Cour	nty		_ Sampling [)ate:	4/23/2014
Applicant/Owner:	Plas Newydd Farn	า					State: WA	_ Sampling F	oint:	6
Investigator(s):	B. Haddaway, T.S	tout		Section	n, Township	, Range:	S2, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%): <u>0-2%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°	1		Long: 122.77460	16°	Datur	m: WGS 84
Soil Map Unit Nam	ne: Pilchuck fir	ne sand					NWI Classification:	R1USR		
Are climatic / hydro	ologic conditions on	the site typical for th	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarl	ks)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	ormal Circumstanc	es" Present?	Yes X	No
Are Vegetation		, or Hydrology					ded, explain any ar			
SUMMARY OF	FINDINGS - A	tach site map s	showing s	sampling	point loca	ations, t	ransects, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen	it?	Yes No	X		ampled Are a Wetland?		Yes X	No		
Wetland Hydrolog	y Present?	Yes X No		Within	a vvetianu:					
Remarks: Plot is I	ocated near Lewis F		helow OH	l W on "veget	ated sand "	a problem	soil that may lack	hydric indicato	rs due to c	deposition
	r low organic matter	content. Due to the	. , pioto iocat		amed wettal					
VEGETATION			Absolute	Dominant	Indicator	Domina	nce Test workshe	et.		
T Ot			% Cover	Species?	Status?		of Dominant Speci			
,	se scientific names.						OBL, FACW, or F		4	(4)
1							ımber of Dominant	-	1	(A)
2 3.							Across All Strata:		1	(B)
4.					· 					_(b)
T		Total Cover:	0				of Dominant Specie OBL, FACW, or F		00%	(A/B)
		Total Gover.				Indirac	, OBE, 1710W, 011	<u>.</u>	0070	(/\u0)
Shrub Stratum						Prevale	nce Index Worksh	eet:		
4							al % Cover of:		tiply by:	
						OBL spe		x1 =	0	-
3.						FACW s		x2 =	0	_
4.						FAC spe	cies	x3 =	0	<u> </u>
5						FACU sp	pecies	_x4 =	0	
		Total Cover:	0			UPL spe	cies	_x5 =	0	
Herb Stratum						Column	Totals: 0	(A)	0	(B)
 Agrostis stolor 	nifera		70	<u>Y</u>	FAC	Preval	ence Index = B/A =	#DI\	//0!	
Daucus carota	9		10		FACU					
3. <u>Clarkia gracilis</u>	3		15		UPL	Hydroph	hytic Vegetation Ir	ndicators:		
4. <u>Leucanthemur</u>			15		FACU	İ	1 - Rapid Test for		egetation	
5. Vicia americar			0.01		FAC	X	2 - Dominance Te			
6. Plantago lance			15		FACU	#####	3 - Prevalence Inc			
7. Centaurea pra	atensis		5		UPL	İ	4 - Morphological			porting
•						İ	data in Remarks of	•	,	
						İ	5 - Wetland Non-\			-1-1
						l ——	Problematic Hydro	pnytic vegetai	ion (Expi	ain)
11		Total Cover:	120.01			İ				
Woody Vine S	tratum	Total Cover.	130.01			¹ Indicate	era of budrio goil on	d watland hydr	ology muo	4
	ottatum									L
-						·	,			
=-· <u> </u>		Total Cover	0				•			
% Ba	re Ground in Herb S	•			0	Present		Yes X	No	
Woody Vine S 1. 2. % Ba Remarks:	re Ground in Herb S	Total Cover:	0		0	be prese Hydroph Vegetati	ion		ic.	

SOIL									Sampling Poin	t:	6
Profile Des	scription: (Describe	to the depth	needed to doo	ument th	e indicat	or or co	onfirm the abs	sence of	indicators.)		
Depth	 Matrix	•		dox Featu					•		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Textur			Remarks	
0-16	10 YR 3/3) YR 3/6	5	C	M	SILT LOA		MIXED MATE		
0-10	10 113/3) YR 4/2	10	<u> </u>	IVI	SAND	aivi	WINCD WATE	NIX.	
			7 111 4/2	10			SAND				
	-										
-							_				
							_				
							_				
¹ Type: C=0	Concentration, D=Dep	oletion, RM=F	Reduced Matrix,	CS=Cove	red or Co	ated Sa	ind Grains. ² L	ocation:	PL=Pore Linir	ng, M=Matrix.	
Hydric Soi	il Indicators: (Applic	cable to all L	RRs, unless ot	nerwise n	oted.)		Indicators	s for Pro	blematic Hyd	ric Soils³:	
Histos	sol (A1)		Sandy	Redox (S	5)			2	cm Muck (A10)	
Histic	Epipedon (A2)		Strippe	d Matrix (S6)			R	ed Parent Mate	erial (TF2)	
Black	Histic (A3)		Loamy	Mucky Mi	neral (F1)	(excep	ot MLRA 1)		ther (Explain ir		
	ogen Sulfide (A4)			-	atrix (F2)		,			,	
	eted Below Dark Surfa	ice (A11)		ed Matrix (
	Dark Surface (A12)	,		Dark Surf			³ Indi	cators of	hydrophytic v	egetation and	
	y Muck Mineral (S2)				urface (F7	7)			drology must b	•	
	y gleyed Matrix (S4)			Depression		,		-	isturbed or pro		
Restrictive	Layer (if present):			<u> </u>					<u> </u>		
Type:											
Depth (inch	nes):						Hydric Soil Pr	esent?	Y	es	No X
HYDROLOG											
	ydrology Indicators		4)					0-		h (O	
	dicators (any one indic	cator is suffici		04-1	(DO	\			condary Indica		
	ce Water (A1)				eaves (B9		pt	vv	ater-Stained L	eaves (B9) (I	VILRA 1, 2,
	Water Table (A2)				and 4B)			— 5	4A and 4B)	(D40)	
	ation (A3)			ust (B11)	(D40				rainage Patterr	, ,	
	r Marks (B1)				ates (B13				ry-Season Wat		
	nent Deposits (B2)				Odor (C	,	na Danta (C2)		aturation Visibl		lagery (C9)
	Deposits (B3)					-	ng Roots (C3)		eomorphic Pos	, ,	
	Mat or Crust (B4)				uced Iron	` '	Soile (C6)		nallow Aquitaro		
	Deposits (B5)						Soils (C6)		AC-Neutral Tes		B A)
	ce Soil Cracks (B6) ation Visible on Aeria	I Imagan, (D7			sed Plants		LKK A)		aised Ant Mou	, , ,	*
				ехріаін ін	Remarks)		— "	ost-Heave Hu	IIIIOCKS (D7)	
	sely Vegetated Conca	ve Suriace (L					1				
Field Obse	ater Present? Ye	s N	o X Dept	h (inches)	:						
Water table		s N		h (inches)							
Saturation		s N	o <u>X</u> Dept	h (inches)	:		Wetland H	lydrolog	y Present?	Yes X	No
	apillary fringe) corded Data (stream ç	raugo monito	ring well gorial	nhoton n	ovious inc	nootion	oc) if available				
Describe Rec	Corded Data (Stream g	jauge, monit	illig well, aerial	priotos, pi	evious iris	spection	is), ii avaliable	•			
Remarks:											

Landform (Millslope, terrace, etc.) Floodpilen Local relief (encove, convex, none) none Slope (%) 0.2%	Project/Site:	Plas Newydd Farm			City/County	: Clark Cour	nty		Sampling	Date:	4/23/2014
Landform (hillslope, terrace, etc.) Floodplain Losd relief (concave, convex, nore) Long: 12277486" Datin: WGS 64	Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling	Point:	7
Submission (LRR) Northwest Forests and Coset (LRR A) Lat 45.850967" Long: 122.774606" Datum: WCG 84.500 May Unit Name: Pichuck fine sand Pichuck fin	Investigator(s):	B. Haddaway, T.Sto	out		Sectio	n, Township	, Range:	S2, T4N, R1W			
Solf Map Unit Name: Pitchusk fine sand Pitchu	Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-2%
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No [If no explain in Remarks) Ave Vegetation Soli or hydrology adjustmently disturbed? Are Thomas Circumstances' Present? Are X No (If needed, explain any answers in Remarks.) **No Hydrology Tessent?** **Very Explain No Hydrology Present?** **Very No N	Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967	0		Long: 122.774	606°	Datum	: WGS 84
Are Vegetation	Soil Map Unit Nam	ne: Pilchuck fine	e sand					NWI Classification	n: R1USR		
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No within a Wetland? Ves X No within a Wetland?	Are climatic / hydro	ologic conditions on t	he site typical for the	his time of y	/ear?	Yes 2	X	No	(If no, explair	า in Remarks	s)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumsta	nces" Present?	Yes X	No
	Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any	answers in Rem	ıarks.)	
No	SUMMARY OF	FINDINGS - Att	tach site map s	showing	sampling	point loca	ations, 1	transects, imp	oortant featur	es, etc.	
Section Present? Yes X No No Wetland? Yes X No Wetland Hydrology Present? Yes X No Wetland? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland? Wetland? Yes X No Wetland? Wetland? Yes X No Wetland? We	Hydronhytic Veget	tation Present?	Yes X No	,							
VEGETATION								Yes X	No		
Absolute Dominant Indicator Species Status Status Species Status Status Status Species Statu	•				within	a Wetland?					
Absolute Dominant Indicator Species Status Status Status Species Status Status Status Species Status Stat		y i resent:	100 // 100	<u></u>							
Absolute Species Species Status Status Species Statu	V5057471011										
Number of Dominant Species Status Number of Dominant Species Status Number of Dominant Species That Are OBL, FACW, or FAC: 2	VEGETATION						Ι				
1.	Tree Stratum (U	se scientific names.)									
Total Cover: 10		•		10	Υ	FAC	That Are	e OBL, FACW, or	FAC:	2	(A)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)	2.						Total No	umber of Domina	nt		_
Total Cover: 10	3						Species	Across All Strata	1 :	2	_(B)
Prevalence Index Worksheet: Total % Cover of:	4						Percent	of Dominant Spe	ecies		
Total % Cover of: Multiply by: Common			Total Cover:	10			That Are	e OBL, FACW, or	FAC:	100%	_(A/B)
Total % Cover of: Multiply by:	Charle Ctratum						Drevele	maa luulay Maul	ah aati		
OBL species										Itinly by:	
FACW species x2 = 0	2				-		-				_
FAC species X3 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X5 = 0 FACU	3.										_
FACU species	1										_
Total Cover: 0	5.						-				_
Herb Stratum			Total Cover:	0	-	·					_
1. Agrostis stolonifera	Herb Stratum									0	(B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% ##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 11. Total Cover: 100 Woody Vine Stratum 12. Total Cover: 0 Was Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 4 - Amorphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes X No	Agrostis stoloi	nifera		100	Υ	FAC					_ ` `
1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) Total Cover: 100 Woody Vine Stratum Total Cover: 0 Foliation Total Cover: 0 Hydrophytic Vegetation Total Cover: 0 Hydrophytic Vegetation Fresent? Yes X No	2.										_
X 2 - Dominance Test is >50% ##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Total Cover: 100 1 1 1 1 1 1 1 1 1	3.						Hydrop	hytic Vegetation	Indicators:		
##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting 8.	4.							1 - Rapid Test f	or Hydrophytic V	egetation	
4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) Total Cover: 100 Woody Vine Stratum Total Cover: 0 Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	5.						Х	2 - Dominance	Test is >50%		
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data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation ¹ (Explain) Total Cover: 100 Woody Vine Stratum Total Cover: 0 Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	7.							4 - Morphologic	al Adaptation1 (F	Provide supp	orting
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Total Cover:0 Woody Vine Stratum0 % Cover of Biotic Crust0 Present? Yes XNo	9							5 - Wetland No	n-Vascular Plant	S2	
Total Cover: 100 Woody Vine Stratum 1.	10							Problematic Hy	drophytic Vegeta	ition¹ (Explai	n)
Woody Vine Stratum					-						
be present, unless disturbed or problematic. Total Cover:0			Total Cover:	100							
2	Woody Vine S	Stratum_									
Total Cover:	1						be prese	ent, unless distur	bed or problemat	tic.	
Total Cover:0 Vegetation Present? Yes X No	2.						Hydrop	hytic			
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No							Vegetat	tion			
				Cover of Bi	otic Crust	0			Yes X	_ No	
	Remarks: Vegetat	ion does not meet Pr	evalence Index								

0-6 10 YR 4/2 90 10 YR 4/4 10 C M SAN 6-16 10 YR 4/1 100 SAN Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains	exture Remarks DY LOAM D
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Depth (inches):	
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) Salt Crust (B11) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	
Wetland Hydrology Indicators: 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) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) 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 (C1) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	il Present? Yes X No
Wetland Hydrology Indicators: 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) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Surface Soul Cracks (B8) 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 (Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)	
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) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Surface (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C4) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)	
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) 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 (Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	0 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Secondary Indicators (2 or more required)
Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Salt Crust (B1) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) (MLRA 1, 2,
Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	4A and 4B) Drainage Patterns (B10)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Dry-Season Water Table (C2)
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) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Oxidized Rhizospheres along Living Roots (C4) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	X Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	<u>—</u>
Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Recent Iron Reduction in Plowed Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Shallow Aquitard (D3)
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)	Raised Ant Mounds (D6) (LRR A)
<u> </u>	Frost-Heave Hummocks (D7)
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): Wetla	
(includes capillary fringe)	ad Hydrology Present? Yes Y No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available recorded Data (stream gauge) are recorded by the recorded Data (stream gauge).	nd Hydrology Present? Yes X No
Domarke:	
Remarks:	

Project/Site:	Plas Newydd Farm	1		City/County:	: Clark Cour	nty			Sam	pling Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm	1					State:	WA	Sam	pling Point:	8
Investigator(s):	B. Haddaway, T.St	tout		Section	n, Township	, Range:	S2, T4I	N, R1W	•		
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none):	none		Slope (%	o): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967°	•		Long:	122.77460	3°	Datu	m: WGS 84
Soil Map Unit Nam	e: Sauvie silt l	oam, sandy substra	atum				NWI Cla	ssification:	none	_	
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		(If no, e	explain in Remar	·ks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstance	es" Pres	ent? Yes X	No
Are Vegetation	, Soil									Remarks.)	
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations, 1	transec	cts, impo	rtant fe	eatures, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1								
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	Χ	No		
Wetland Hydrology		Yes X No		Within	a welland?		•				
Remarks:	•	<u> </u>									
VEGETATION											
Trop Ctratum (III	a a aciontifia nama a		Absolute % Cover	Dominant Species?	Indicator Status?			t workshee			
1. Populus balsa	se scientific names.)	1	60	<u></u>	FAC			ACW, or FA		5	(A)
Fraxinus latifoli			45		FACW	Total Nu	ımher of	Dominant	_	<u> </u>	(^)
3.	na							All Strata:		6	(B)
4.						Percent	of Domi	nant Specie	es —		
		Total Cover:	105					ACW, or FA		83%	(A/B)
Chrub Stratum						Drovolo	naa Ind	av Warkah			
Shrub Stratum 1. Symphoricarpo	ne albue		15	V	FACU		tal % Co	ex Worksho	eet:	Multiply by:	
Lonicera involu			15		FAC	OBL spe		ver or.	x1 =	0	
3. Cornus alba	30.010		20		FACW					0	
4.						FAC spe				0	
5.				-					x4 =	0	
		Total Cover:	50		·	UPL spe			x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Phalaris arund	linacea		75	Υ	FACW	Preva	lence Ind	dex = B/A =		#DIV/0!	
2											
3						Hydrop		getation In			
4									•	ytic Vegetation	
'						X		ninance Tes			
						#####		valence Ind			
									•	on1 (Provide su	pporting
					- ——					eparate sheet)	
								tland Non-V			-i\
							Problei	панс нушо	priyuc v	egetation¹ (Expl	airi)
11		Total Cover:	75								
Woody Vine S	tratum	Total Cover.				1Indicate	ore of hw	dric soil and	wetland	d hydrology mus	·+
1.	<u>tratam</u>							ss disturbed			ot.
2.									•		
		Total Cover:	0			Hydrop Vegetat					
% Ba	re Ground in Herb S			otic Crust	0	Present			Yes X	No	
Remarks:	- / -										

≏nth			_						cators.)	
epth	Matrix			dox Featu		. 2			5 .	
nches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	Loc ²	Textu		Remarks	
4	10 YR 3/2	90	10 YR 6/2	<u>5</u>	<u>D</u>	M	SILT LOA	<u> </u>		
8	10 YR 5/2	85	7.5 YR 4/4 10 YR 3/4	5	C C	<u>М</u> М	SILT LOA	<u> </u>		
<u> </u>	10 11(3/2		10 YR 6/2	5	D	M	<u> </u>	AIVI		
		. ——	7.5 YR 4/6	5	C	PL	_			
12	10 YR 5/2	75	5 YR 3/4	10	C	M	SILT LOA			
			7.5 YR 4/4	15	С	М				
-16	10 YR 5/2	65	7.5 YR 4/4	20	С	М	SILT LOA	M		
	=Concentration, D=Dep		5 YR 3/4	15	С	М				
Histi Blac Hydr Depl Thicl	osol (A1) ic Epipedon (A2) ik Histic (A3) rogen Sulfide (A4) leted Below Dark Surfack k Dark Surface (A12) dy Muck Mineral (S2) dy gleyed Matrix (S4)	ce (A11)	Stripped Loamy I Loamy 0 Deplete Redox I Deplete	Gleyed M d Matrix (Dark Surf	S6) neral (F1) atrix (F2) F3) ace (F6) urface (F7))	W	Red Pa Other (icators of hydrotological	Muck (A10) arent Material (TF2) (Explain in Remarks) rophytic vegetation and pagy must be present,	d
/pe: epth (ind narks:	GY				iiis (i 0)	н	ydric Soil Pı		Yes X	No
PROLOGETIAN STATE OF THE PROLOGETIAN STATE OF	ches):		Water-S MLR/ Salt Cru Aquatic	Stained Le A 1, 2, 4A st (B11) Invertebr	eaves (B9 and 4B) ates (B13	9) (excep	ydric Soil Pi	Seconda Water- 4A Draina Dry-Se	<u>`</u>	ore require MLRA 1, 2
pre:epth (inches) property epth	GY Hydrology Indicators: ndicators (any one indicace Water (A1) n Water Table (A2) uration (A3) er Marks (B1)	ator is su	Water-S MLR/ Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted (B7) Other (E	Stained Lea A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospece of Red Iron Redu or Stress	eaves (B9 and 4B) ates (B13	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	ydric Soil Pr	Seconda Water- 4A Draina Dry-Se Satura X Geomo Shalloo X FAC-N Raised	ary Indicators (2 or mo Stained Leaves (B9) (and 4B) ge Patterns (B10) eason Water Table (C2	MLRA 1, 2) magery (C

Project/Site:	Plas Newydd Farm	1		City/County:	: Clark Cour	nty			San	npling Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm	ı					State:	WA	San	npling Point:	9
Investigator(s):	B. Haddaway, T.St	tout		Section	n, Township	, Range:	S2, T41	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope	(%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460)6°	Da	tum: WGS 84
Soil Map Unit Nam	ne: Sauvie silt l	loam, sandy substra	atum				NWI Cla	ssification:	PFOR		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		_(If no,	explain in Rem	narks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstand	es" Pre	sent? Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers	in Remarks.)	
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	ortant 1	features, etc	> .
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No)		ampled Are a Wetland?		Yes	Χ	No		
Wetland Hydrology		Yes X No)	Within	a welland?		-				
Remarks:	,	<u> </u>									
VEGETATION											
			Absolute % Cover	Dominant Species?	Indicator Status?			t workshe			
,	se scientific names.))			FAC			ACW, or F		_	(4)
1. Populus balsa			10		FACW					5	(A)
 Fraxinus latifo . 	lla		75	<u>Y</u>	FACV			Dominant All Strata:	_	6	(B)
4						Percent	of Domi	nant Speci	es		
		Total Cover:	85			That Are	OBL, F	ACW, or F	AC:	83%	(A/B)
Shrub Stratum						Prevale	nce Inde	ex Worksh	eet.		
Symphoricarpo	os albus		10	Υ	FACU		al % Co			Multiply by:	
Rubus leucode			10		FACU	OBL spe			x1 =	0	
3. Cornus alba			20		FACW		-			0	
4.						FAC spe				0	
5.						FACU s	pecies		x4 =	0	
		Total Cover:	40			UPL spe	ecies		x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Phalaris arund	linacea		55	Υ	FACW	Preva	ence Inc	dex = B/A =	<u> </u>	#DIV/0!	
2. Athyrium filix-f	emina		20		FAC						
3. Equisetum arv	rense		25	Y	FAC	Hydrop	hytic Ve	getation lı	ndicato	rs:	
4. Carex obnupta			5		OBL					hytic Vegetatio	n
5. <u>Lysimachia nu</u>	ımmularia		15		FACW	X		ninance Te			
						####		valence Ind			
·									•	tion1 (Provide s	
·					·					separate sheet)
								tland Non-\			
					·		Probler	natic Hydro	ophytic '	Vegetation ¹ (Ex	kplain)
11		Total Covers	120		·						
Moody Vino S	trotum	Total Cover:	120			1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Woody Vine S 1.	<u>lialuiii</u>							aric soil an ss disturbe		nd hydrology m oblematic.	ust
2.					· 		· ·				
		Total Cover:	0			Hydrop	-				
% Ra	re Ground in Herb S			otic Crust	0	Vegetat Present			Yes X	No_	
Remarks:						500111	-		. 30 <u>/</u>		
. Jonanio.											

SOIL								Sam	oling Point:	
Profile De	escription: (Describe	to the de	epth needed to doc	ument th	e indicat	tor or co	onfirm the abse	ence of indic	ators.)	
Depth	Matrix		Red	dox Featu	res					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	_ Texture		Remarks	
0-4	10 YR 3/2	83	10 YR 5/2	5	D	М	SILTY CLA	Y L		
	_		5 YR 4/6	7	С	PL				
			7.5 YR 4/6	5	С	М				
4-12	10 YR 4/2	80	7.5 YR 5/8	10	С	М	SILT LOAN	1		
			7.5 YR 4/6	10	С	PL				
12-16	10 YR 4/2	70	7.5 YR 4/6	15	С	М	SILT LOAN	1		
			7.5 YR 5/8	15	С	М				
¹ Type: C=	=Concentration, D=Dep	oletion, RI	M=Reduced Matrix, (S=Cove	red or Co	ated Sa	nd Grains. ² Lo	cation: PL=I	Pore Lining, M=Matrix.	
Hydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless oth	erwise n	oted.)		Indicators	for Problem	natic Hydric Soils ³ :	
Histo	osol (A1)		Sandy F	Redox (S5	5)		-	2 cm M	luck (A10)	
Histic	c Epipedon (A2)		Stripped	d Matrix (S	S6)		-	Red Pa	arent Material (TF2)	
Black	k Histic (A3)		Loamy I	Mucky Mii	neral (F1) (excep	t MLRA 1)	Other (Explain in Remarks)	
Hydr	rogen Sulfide (A4)		Loamy	Gleyed Ma	atrix (F2)				
X Depl	leted Below Dark Surfa	ce (A11)	Deplete	d Matrix (F3)					
Thick	k Dark Surface (A12)		Redox [Dark Surfa	ace (F6)		³ Indic	ators of hydr	ophytic vegetation and	t
Sand	dy Muck Mineral (S2)		Deplete	d Dark Տւ	urface (F	7)	we	tland hydrolo	gy must be present,	
Sand	dy gleyed Matrix (S4)		Redox [Depressio	ns (F8)		u	nless disturb	ed or problematic.	
Restrictiv	e Layer (if present):									
Туре:										
Depth (inc	ches):						lydric Soil Pre	sent?	Yes X	No
Remarks:										
HYDROLOG										
	Hydrology Indicators:		£6: -: t)					0	In dia ataua (0 an aa	
_	ndicators (any one indic	ator is su		Na : 1 1 -	(D.	2) (-4		ary Indicators (2 or mor	
	ace Water (A1)			Stained Le	•		ot _		Stained Leaves (B9) (I	MLRA 1, 2,
	Water Table (A2)			A 1, 2, 4A	and 4B)	-		and 4B)	
	ration (A3)			ıst (B11)	-4 (D4)	2)	-		ge Patterns (B10)	
	er Marks (B1)			Invertebr	,	•	-		ason Water Table (C2	
	ment Deposits (B2)			en Sulfide			- D - ((OO)		tion Visible on Aerial In	nagery (C9)
	Deposits (B3)					•	g Roots (C3)		orphic Position (D2)	
	I Mat or Crust (B4)			e of Red					v Aquitard (D3)	
	Deposits (B5)						` ′		eutral Test (D5)	-
	ace Soil Cracks (B6)			or Stress			.RR A)		Ant Mounds (D6) (LR	
	dation Visible on Aerial			Explain in	Remarks	s)	-	Frost-F	leave Hummocks (D7))
Spar	sely Vegetated Conca	ve Surfac	e (B8)							
	servations:									
	Vater Present? Yes			(inches)						
Saturation	le Present? Yes n Present? Yes			n (inches): n (inches):			Wetland Hy	drology Pre	esent? Yes X	No
	capillary fringe)	· —	No X Depti	i (iiiciies).			Wetiand my	urology Fre	sent: les X	_10
	ecorded Data (stream g	auge, mo	nitoring well, aerial p	hotos, pr	evious in	spection	s), if available:			
			- '			•				
Remarks:										

Pro	oject/Site:	Plas Newydd	Farm		City/County	: Clark Cou	nty			Sar	mpling Da	ite:	4/23/2014
Ар	plicant/Owner:	Plas Newydd	Farm					State:	WA	Sar	mpling Po	int:	10
Inv	restigator(s):	B. Haddaway	, T.Stout		Sectio	n, Township	, Range:	S2, T4	N, R1W				
Laı	ndform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none			Slope (%): <u>0-1%</u>
Su	bregion (LRR):	Northwest Fo	rests and Coast (LRR A)) Lat:	45.850967°	•		Long:	122.77460)6°		Datu	m: WGS 84
So	il Map Unit Nam	ne: <u>Sauvi</u> e	e silt loam, sandy substra	atum				NWI Cla	ssification	PEMT	-		
Are	e climatic / hydro	ologic condition	s on the site typical for the	his time of	year?	Yes	X	No		_(If no,	explain ir	n Remar	ks)
Are	e Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	ormal C	ircumstand	es" Pre	sent?	es X	No
Are	e Vegetation		, or Hydrology					ded, exp	olain any a	nswers	in Remar	ks.)	
SI	JMMARY OF		- Attach site map s				ations, t	ransec	cts, impo	ortant	feature	s, etc.	
Ну	drophytic Veget	ation Present?	Yes X No	ı									
Ну	dric Soil Presen	t?	Yes X No			ampled Are a Wetland?		Yes	Χ	No			
We	etland Hydrology	y Present?	Yes X No	1	Within	a welland:		•					
	marks:												
VE	EGETATION												
Tre	ee Stratum (Us	se scientific nai	mes.)	Absolute % Cover	Dominant Species?	Indicator Status?			i t workshe nant Spec				
	Fraxinus latifo			35	Y	FACW	That Are	OBL, F	ACW, or F	AC:	3	3	(A)
2.			,				Total Nu	ımber of	Dominant	_			`
3.							Species	Across	All Strata:		4	1	(B)
4.							Percent	of Domi	nant Spec	es –			``
			Total Cover:	35	-				ACW, or F		75	5%	(A/B)
Sh	rub Stratum						Prevale	nce Inde	ex Worksh	neet:			
1.	Rubus armenia	acus	,	20	Υ	FACU		al % Co		icci.	Multir	oly by:	
2.	Cornus alba			20		FACW	OBL spe			_ x1 =))	
3.					·							<u> </u>	
4.	-						FAC spe)	
5.	-									x4 =		<u> </u>	
	-		Total Cover:	40			UPL spe	-		x5 =)	
Не	rb Stratum						Column		0	(A)	()	(B)
1.	Rubus ursinus	:		5		FACU	Preva	ence Inc	dex = B/A =		#DIV/	0!	``
2.	Phalaris arund			85	Υ	FACW							
3.	Equisetum arv	rense		5		FAC	Hydrop	hytic Ve	getation I	ndicato	rs:		
4.	Ranunculus re			5		FAC		-	id Test for			etation	
	Agrostis stolor			5		FAC	X		ninance Te		-		
6.							#####	3 - Prev	valence Inc	dex is ≤	3.0 ¹		
7.								4 - Mor	phological	Adapta	tion1 (Pro	vide su	oporting
8.									Remarks				
9.								5 - Wet	land Non-	Vascula	r PlantS2		
10.								Probler	natic Hydr	ophytic	Vegetatio	n ¹ (Expl	ain)
									•				
			Total Cover:	105		·							
1.	Woody Vine S	<u>tratum</u>							dric soil an				t
2.										- 1-1-2			
			Total Cover:	0		-	Hydrop						
	% Ra	re Ground in H		Cover of Bi		0	Vegetat Present			Yes X		No	
D-	marks:	. S Ground III II	0.5 Guatam <u>0</u> /0	COVCI OI DI	ono ordat		1 1636111	•		.63 ^			
11/6	marks.												

	• •		epth needed to do	ournerit til		J. O. OO.	iiiiiii tiie ab	301100 01 111	iaioatoi 5.,		
Depth	Matrix		Re	edox Featu	ıres		_				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Textu	re		Remarks	
0-2	10 YR 3/2	100					SILT LOA	AM			
2-6	10 YR 4/2	90	7.5 YR 4/4	10	С	М	SILT LOA	AM			
6-10	10 YR 4/2	80	7.5 YR 4/4	20	<u>C</u>	PL	SILT LOA				
10-16	10 YR 4/2	75	7.5 YR 4/4	20	<u>C</u>	M	SILT LOA	<u> </u>			
			10 YR 5/1	5	D	M					
Type: C=	Concentration, D=Dep	letion, RI	M=Reduced Matrix,	CS=Cove	red or Coa	ated San	d Grains. ² l	Location: P	PL=Pore Lini	ng, M=Matrix.	
Hydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicator	s for Probl	lematic Hyd	dric Soils³:	
Histo	osol (A1)		Sandy	Redox (S	5)			2 cm	m Muck (A10	0)	
Histic	c Epipedon (A2)		Strippe	ed Matrix (S6)			Red	d Parent Mat	erial (TF2)	
Black	k Histic (A3)		Loamy	Mucky Mi	neral (F1)	(except	MLRA 1)	Othe	er (Explain iı	n Remarks)	
Hydr	ogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2)						
	eted Below Dark Surface	ce (A11)		ed Matrix (,						
	k Dark Surface (A12)			Dark Surf						egetation and	
	dy Muck Mineral (S2)			ed Dark Si)	W	-	rology must		
	dy gleyed Matrix (S4)		Redox	Depression	ns (F8)			unless dist	turbed or pro	oblematic.	
Restrictiv	e Layer (if present):										
Туре:											
Type: Depth (inc emarks:	ches):		<u> </u>			Н	ydric Soil P	resent?	Y	es X	No
Depth (incomments:						H	ydric Soil P	resent?	Y	es <u>X</u>	No
Depth (incommerks: YDROLOG Wetland H Primary In	GY Hydrology Indicators: dicators (any one indic							Seco	ndary Indica	ators (2 or mor	re required)
Depth (incomments: YDROLOG Wetland H Primary In Surfa	GY Hydrology Indicators: dicators (any one indicators (A1)		Water-	-Stained Le				Seco	ndary Indica		re required)
YDROLOG Wetland H Primary In Surfa	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		Water-	RA 1, 2, 4 <i>A</i>				Secol Wat	ndary Indica ter-Stained L 1A and 4B)	ators (2 or mor Leaves (B9) (N	re required)
YDROLOG Wetland H Primary In Surfa High Satu	Hydrology Indicators: Idicators (any one indicate Water (A1) Water Table (A2) Iration (A3)		Water- MLF Salt Cr	RA 1, 2, 4 <i>A</i> rust (B11)	and 4B)) (excep		<u>Seco</u> Wat 4 Drai	endary Indica ter-Stained L 1A and 4B) inage Patter	ators (2 or mor eaves (B9) (N	re required)
YDROLOG Wetland H Primary In Surfa High Satu	Hydrology Indicators: Idicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		Water- MLF Salt Cr Aquati	RA 1, 2, 4<i>A</i> rust (B11) c Invertebr	and 4B)) (excep		Secol Wat 4 Drai Dry-	endary Indica ter-Stained L 1A and 4B) inage Patter -Season Wa	ators (2 or mor Leaves (B9) (Norms (B10) Later Table (C2)	re required) MLRA 1, 2,
YDROLOG Wetland H Primary In Surfa High Satu Wate Sedii	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Water- MLF Salt Cr Aquati Hydrog	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide	and 4B) rates (B13 rates (C1) (except)	<u> </u>	Secon Wat 4 Drai Dry- Satu	endary Indica ter-Stained L 1A and 4B) inage Patter -Season Wa uration Visib	ators (2 or mor Leaves (B9) (Norms (B10) Later Table (C2) Le on Aerial In	e required) MLRA 1, 2,
YDROLOG Wetland H Primary In Surfa High Satu Wate Sedii Drift	Hydrology Indicators: adicators (any one indicators (any one indicators (ary one indicators (A1)) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		Water- MLF Salt Cr Aquatir Hydrog X Oxidize	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp	and 4B) rates (B13 rates (C1 cheres alo) (except))) ng Living		Secol Wat 4 Drai Dry- Satu X Geo	endary Indica ter-Stained L 1A and 4B) inage Patter -Season Wa uration Visib omorphic Po	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) le on Aerial Insition (D2)	e required) MLRA 1, 2,
YDROLOG Wetland H Primary In Surfa High Satu Wate Sedii Drift Algal	Hydrology Indicators: Idicators (any one indicators (A1) Water Table (A2) Indicators (A3) Indicators (B1) Indicators (B2) Indicators (B3) Indicators (B4)		Water- MLF Salt Cr Aquati- Hydroo X Oxidize Preser	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red	and 4B) rates (B13 rates (C1 cheres alo uced Iron) (except))) ng Living (C4)	t g Roots (C3)	Secon Wate 4 Drai Dry- Satu X Geo Sha	endary Indica ter-Stained L 1A and 4B) inage Patter -Season Wa uration Visib omorphic Po	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ale on Aerial Instition (D2) d (D3)	e required) MLRA 1, 2,
YDROLOG Wetland I Primary In Satu Wate Sedii Drift Algal	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ace Water (A1) Water Table (A2) ration (A3) are Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)		Water- MLF Salt Cr Aquati Hydrog X Oxidize Preser Recen	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu	ates (B13 Odor (C1 Oheres alo uced Iron uction in P))) ng Living (C4) lowed So	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC	endary Indica ter-Stained L 1A and 4B) inage Patter -Season Wa uration Visib omorphic Po- ullow Aquitare C-Neutral Te	ators (2 or more Leaves (B9) (Norms (B10) atter Table (C2) atter to (D2) at (D3) at (D5)	re required) MLRA 1, 2,) nagery (C9)
YDROLOG Wetland H Primary In Satu Wate Sedii Drift Algal Iron I	Hydrology Indicators: Idicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants) (exception)) ng Living (C4) lowed So (D1) (Li	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	endary Indicater-Stained Land 4B) inage Patter-Season Wauration Visibomorphic Poullow Aquitant C-Neutral Tesed Ant Mou	ators (2 or mor Leaves (B9) (Moreons (B10)) ater Table (C2) ater Table (C2) ater Table (C2) ater Table (C2) ater (D2) d (D3) ater (D5) ands (D6) (LRI	ne required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland H Primary In Surfa High Satu Wate Sedii Drift Algal Iron Surfa	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A2)) ace Water (A1) Water Table (A2) ration (A3) are Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other (RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu	ates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants) (exception)) ng Living (C4) lowed So (D1) (Li	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	endary Indicater-Stained Land 4B) inage Patter-Season Wauration Visibomorphic Poullow Aquitant C-Neutral Tesed Ant Mou	ators (2 or more Leaves (B9) (Norms (B10) atter Table (C2) atter to (D2) at (D3) at (D5)	re required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Surfa Inund	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concav	ator is su	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other (RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants) (exception)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	endary Indicater-Stained Land 4B) inage Patter-Season Wauration Visibomorphic Poullow Aquitant C-Neutral Tesed Ant Mou	ators (2 or mor Leaves (B9) (Moreons (B10)) ater Table (C2) ater Table (C2) ater Table (C2) ater Table (C2) ater (D2) d (D3) ater (D5) ands (D6) (LRI	ne required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Surfa Inund Spar	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial acely Vegetated Concaverservations:	Imagery ve Surfac	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other (e (B8)	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu d or Stress (Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks) (exception)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	endary Indicater-Stained Land 4B) inage Patter-Season Wauration Visibomorphic Poullow Aquitant C-Neutral Tesed Ant Mou	ators (2 or mor Leaves (B9) (Moreons (B10)) ater Table (C2) ater Table (C2) ater Table (C2) ater Table (C2) ater (D2) d (D3) ater (D5) ands (D6) (LRI	ne required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Inunc Spar Field Obs Surface W	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concav	Imagery ve Surfac	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other (e (B8)	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress (Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks) (exception)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	endary Indicater-Stained Land 4B) inage Patter-Season Wauration Visibomorphic Poullow Aquitant C-Neutral Tesed Ant Mou	ators (2 or mor Leaves (B9) (Moreons (B10)) ater Table (C2) ater Table (C2) ater Table (C2) ater Table (C2) ater (D2) d (D3) ater (D5) ands (D6) (LRI	ne required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Inunc Spar Field Obs Surface W	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A3)) ace Water (A1) Water Table (A2) ration (A3) are Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial acely Vegetated Concaverservations: Vater Present? Ves	Imagery ve Surfac	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other e (B8) No X Dept No X Dept No X Dept No X Dept	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Redu d or Stress (Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks) (exception)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3) Dils (C6) RR A)	Secon Wat 4 Drai Dry- Satu X Geo Sha X FAC Rais	andary Indica ter-Stained L 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitan C-Neutral Te sed Ant Mou st-Heave Hu	ators (2 or mor Leaves (B9) (Moreons (B10)) ater Table (C2) ater Table (C2) ater Table (C2) ater Table (C2) ater (D2) d (D3) ater (D5) ands (D6) (LRI	ne required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Surfa Inunc Spar Field Obs Surface W Water tabl Saturation (includes o	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (asely Vegetated Concaverservations: Vater Present? Yes (A1) Present? Yes (A2) Present? Yes (A3)	Imagery ve Surfac	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other e (B8) No X No X No X Depi	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress (Explain in th (inches) th (inches)	and 4B) rates (B13 rat) (except)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3) pils (C6) RR A) Wetland I	Secon Wat Mat Drai Dry- Satu X Geo Sha X FAC Rais Fros	andary Indica ter-Stained L 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitan C-Neutral Te sed Ant Mou st-Heave Hu	ns (2 or mor Leaves (B9) (North Street Table (C2) le on Aerial Instition (D2) d (D3) est (D5) unds (D6) (LRI	re required) MLRA 1, 2, nagery (C9)
YDROLOG Wetland F Primary In Surfa High Satu Wate Sedii Drift Algal Iron Surfa Inunc Spar Field Obs Surface W Water tabl Saturation (includes o	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (A1) resely Vegetated Concaverservations: Vater Present? Yes le Present? Yes le Present? Yes	Imagery ve Surfac	Water- MLF Salt Cr Aquatir Hydrog X Oxidize Preser Recen Stunte (B7) Other e (B8) No X No X No X Depi	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red t Iron Red d or Stress (Explain in th (inches) th (inches)	and 4B) rates (B13 rat) (except)) ng Living (C4) lowed Sc (D1) (Li	t Roots (C3) pils (C6) RR A) Wetland I	Secon Wat Mat Drai Dry- Satu X Geo Sha X FAC Rais Fros	andary Indica ter-Stained L 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitan C-Neutral Te sed Ant Mou st-Heave Hu	ns (2 or mor Leaves (B9) (North Street Table (C2) le on Aerial Instition (D2) d (D3) est (D5) unds (D6) (LRI	re required) MLRA 1, 2, nagery (C9)

Project/Site:	Plas Newydd Farm		City/County	: Clark Cou	nty			Sampling	Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm					State:	WA	Sampling	Point:	11
Investigator(s):	B. Haddaway, T.Stout		Sectio	n, Township	, Range:	S2, T4N	N, R1W			
Landform (hillslope	e, terrace, etc.): Floodplain		_ Local re	elief (concav	e, convex	, none): <u> </u>	none		_Slope (%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests and Coast (LR	R A) Lat:	45.850967	0		Long:	122.774606	٥	Datur	m: WGS 84
Soil Map Unit Nam	ne: Sauvie silt loam, sandy sul	ostratum				NWI Clas	ssification:	PFOR		
Are climatic / hydro	ologic conditions on the site typical	for this time of y	/ear?	Yes	X	No_		(If no, explai	n in Remar	ks)
Are Vegetation	, Soil, or Hydrolog	у	significantly	disturbed?	Are "N	lormal Ci	rcumstance	s" Present?	Yes X	No
Are Vegetation	, Soil, or Hydrolog	у	naturally pr	oblematic?	(If nee	ded, exp	lain any ans	wers in Ren	narks.)	
SUMMARY OF	FINDINGS – Attach site ma	p showing	sampling	point loca	ations, t	ransec	ts, impor	tant featu	res, etc.	
Hydrophytic Veget	ation Present? Yes X	No								
Hydric Soil Presen		No		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology		No	Within	a wellanu?		_	-			
Remarks:										
VEGETATION										
Tree Stratum (U	se scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?			t workshee nant Specie			
Fraxinus latifo	· · · · · · · · · · · · · · · · · · ·	50	Y	FACW	That Are	e OBL, F	ACW, or FA	C:	4	(A)
2.		_			Total Nu	ımber of	Dominant			_` '
3.					Species	Across A	All Strata:		4	(B)
4.					Percent	of Domir	nant Species	<u></u>		
	Total Co	ver: 50					ACW, or FA		100%	(A/B)
Shrub Stratum		_			Prevale	nce Inde	x Workshe	et:		
1. Crataegus dou	uglasii		Y	FAC	Tot	al % Cov	-	-	ıltiply by:	_
2. <u>Cornus alba</u>		10	Y	FACW	OBL spe		:		0	_
3.						_	:		0	_
4.					FAC spe	_	:		0	_
5	Tatal Oa					_			0	_
Llorb Ctroturo	Total Co	ver: 15			UPL spe	cies Totals:		x5 =	0	— _(D)
Herb Stratum 1. Phalaris arund	dinacea	90	V	FACW		_	0 ex = B/A =		0 IV/0!	(B)
2.	iii iacea			171011	Tieva	ence ma	CX - D/A	#01	V/U:	_
3.					Hydrop	hytic Ved	getation Inc	licators:		
4.		_			,		_	lydrophytic V	/egetation	
_		_	-		x	-	inance Tes		3	
6					#####	3 - Prev	alence Inde	x is ≤3.0 ¹		
7						4 - Morp	ohological A	daptation1 (Provide sur	porting
						data in l	Remarks or	on a separa	te sheet)	
9.						5 - Wetl	land Non-Va	ascular Plant	:S2	
10				<u> </u>		Problem	natic Hydrop	hytic Vegeta	ation ¹ (Expl	ain)
11										
	Total Co	ver: 90								
Woody Vine S	<u>tratum</u>							wetland hyd		t
1					be prese	ent, unles	s disturbed	or problema	itic.	
2			-		Hydrop	hytic				
		ver: 0			Vegetat	ion				
	re Ground in Herb Stratum0	% Cover of Bi	otic Crust	0	Present	:?	,	Yes X	No	
Remarks:										

	scription. (Describe	to the de	epth needed	to document th	e indicat	or or cor	firm the ab	sence of	indicators.)		
Depth	Matrix			Redox Featu	ires						
(inches)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	- Textu	re		Remarks	
0-3	10 YR 4/2	96	10 YR 4/4	2	С	М	SCL				
			10 YR 4/4	2	С	PL					
3-6	10 YR 4/1	75	5 YR 4/4	5	С	М	SCL				
			7.5 YR 4/3	10	С	М	SILT LO	AM			
			10 YR 5/1	10	D	М					
6-16	10 YR 5/2	63	10 YR 4/4	30	С	М	SILT LO	AM			
			7.5 YR 4/4	5	С	М					
	- i		7.5 YR 4/6	2	С	PL			-		
Type: C=	Concentration, D=Dep	letion, RI	M=Reduced N	Matrix, CS=Cove	red or Co	ated San	d Grains. ²	Location:	PL=Pore Linir	ng, M=Matrix.	
lydric So	oil Indicators: (Applic	able to a	II LRRs, unle	ess otherwise n	oted.)		Indicato	rs for Pro	oblematic Hyd	lric Soils³:	
	osol (A1)		8	Sandy Redox (S	5)				cm Muck (A10	•	
Histic	c Epipedon (A2)		8	Stripped Matrix (S6)			R	ed Parent Mate	erial (TF2)	
Black	K Histic (A3)		<u> </u>	Loamy Mucky Mi	neral (F1)	(except	MLRA 1)	0	ther (Explain in	n Remarks)	
	ogen Sulfide (A4)			Loamy Gleyed M)					
Deple	eted Below Dark Surfac	ce (A11)		Depleted Matrix (
	Dark Surface (A12)			Redox Dark Surf	. ,				f hydrophytic ve	-	
Sand	ly Muck Mineral (S2)			Depleted Dark S	,	7)	V		ydrology must b		
Sand	ly gleyed Matrix (S4)		F	Redox Depression	ns (F8)			unless d	isturbed or pro	blematic.	
ype: epth (incl	hes):					H	ydric Soil P	resent?	Ye	es <u>X</u>	No
Гуре: Depth (incl	hes):					H	ydric Soil P	resent?	Ye	es <u>X</u>	No
Restrictive Type: Depth (incl marks:	GY					H	ydric Soil P	resent?	Ye	es <u>X</u>	No
Type: Depth (included) marks: DROLOG Wetland H	SY Hydrology Indicators:		fficions)			H	ydric Soil P				
ype: Depth (included) D	SY Hydrology Indicators: dicators (any one indic			Mater Steined L	noves (DS			Se	condary Indica	tors (2 or more	required)
DROLOG Vetland H Surfa	Hydrology Indicators: dicators (any one indicators (A1)			Water-Stained Le) (except		Se	condary Indica Vater-Stained L		required)
DROLOG Vetland H Surfa High	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2)		V	MLRA 1, 2, 4) (except		SeW	condary Indica /ater-Stained L 4A and 4B)	tors (2 or more eaves (B9) (M L	required)
DROLOG Wetland H Primary Ind Surfa High Satur	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3)		V	MLRA 1, 2, 4 Salt Crust (B11)	and 4B)) (except		Se W	condary Indica /ater-Stained L 4A and 4B) rainage Patterr	tors (2 or more eaves (B9) (ML ns (B10)	required)
DROLOG Vetland H Surfa High Satur Wate	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		V	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebr	and 4B)	(except		SeWD	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wat	tors (2 or more eaves (B9) (M L ns (B10) ter Table (C2)	required)
DROLOG Vetland H Crimary Ind Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (any one indicators (A1)) water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		\ \	MLRA 1, 2, 4 A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	and 4B) ates (B13	(except	<u> </u>	Se	condary Indica /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wat aturation Visibl	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima	required)
DROLOG Vetland H Grimary Ind Surfa High Satur Wate Sedir Drift I	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		V	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	and 4B) ates (B13 Odor (Coheres ald	(except	<u> </u>		condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wat aturation Visible	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2)	required .RA 1, 2,
DROLOG Vetland H Surfa High Satur Wate Sedir Drift I Algal	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizosp Presence of Red	ates (B13 Odor (Coheres alduced Iron	(C4)	t Roots (C3)	Se W D D S X G S	condary Indicater-Stained L 4A and 4B) rainage Patterr ry-Season Water aturation Visibles beomorphic Postallow Aquitaro	tors (2 or more leaves (B9) (MI ns (B10) ter Table (C2) le on Aerial Ima sition (D2)	required .RA 1, 2,
DROLOG Wetland H Primary Inc Satur Wate Sedir Drift I Algal Iron [Hydrology Indicators: dicators (any one indicators (any one indicators) ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizosperesence of Red Recent Iron Red	ates (B13 Odor (Coheres alduced Iron puction in F	(C4) Plowed Sc	t Roots (C3)	Se W D D S X G S X F.	condary Indicater-Stained L 4A and 4B) rainage Patterr ry-Season Water aturation Visible eomorphic Postallow Aquitare AC-Neutral Tes	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5)	required) RA 1, 2,
DROLOG DROLOG Vetland H Primary Ind Satur Wate Sedir Drift I Algal Iron I Surfa	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebric Hydrogen Sulfide Oxidized Rhizospersence of Red Recent Iron Red Stunted or Stress	ates (B13 e Odor (Coheres alouced Iron auction in Fied Plants	(C4) Plowed So	t Roots (C3)	Se W D D D S X G S X F. R	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wataturation Visible seomorphic Postallow Aquitard AC-Neutral Testalsed Ant Mour	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,
DROLOG Vetland H Primary Ind Surfa High Sedir Drift I Algal Iron [Surfa Inunc	dicators: (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	— V — S — H X C — F — F — S (B7)	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizosperesence of Red Recent Iron Red	ates (B13 e Odor (Coheres alouced Iron auction in Fied Plants	(C4) Plowed So	t Roots (C3)	Se W D D D S X G S X F. R	condary Indicater-Stained L 4A and 4B) rainage Patterr ry-Season Water aturation Visible eomorphic Postallow Aquitaro	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,
DROLOG Wetland H Primary Inc Satur Wate Sedir Algal Iron [Surfa Inunc Spars	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concav	ator is su	— V — S — H X C — F — F — S (B7)	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebric Hydrogen Sulfide Oxidized Rhizospersence of Red Recent Iron Red Stunted or Stress	ates (B13 e Odor (Coheres alouced Iron auction in Fied Plants	(C4) Plowed So	t Roots (C3)	Se W D D D S X G S X F. R	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wataturation Visible seomorphic Postallow Aquitard AC-Neutral Testalsed Ant Mour	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,
Depth (inclemarks: DROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concavervations:	Imagery re Surfac	V	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizosperesence of Red Recent Iron Redistunted or Stress Other (Explain in	and 4B) ates (B13 Odor (Coheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed So	t Roots (C3)	Se W D D D S X G S X F. R	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wataturation Visible seomorphic Postallow Aquitard AC-Neutral Testalsed Ant Mour	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,
Depth (inclemarks: DROLOG Wetland H Primary Inclemate Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obse Gurface W	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concav	Imagery ve Surfac	— V — S — H X C — F — F — S (B7)	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebric Hydrogen Sulfide Oxidized Rhizospersence of Red Recent Iron Red Stunted or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed So	t Roots (C3)	Se W D D D S X G S X F. R	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wataturation Visible seomorphic Postallow Aquitard AC-Neutral Testalsed Ant Mour	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,
Depth (inclemarks: DROLOG Wetland H Primary Inclemate Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obse Gurface W	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) face Soil Cracks (B6) dation Visible on Aerial (ace Sely Vegetated Concavervations: Yes Yes Yes	Imagery ve Surfac	V S S S S S S S S S	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebre Hydrogen Sulfide Oxidized Rhizosperesence of Red Recent Iron Redistunted or Stress Other (Explain in Depth (inches)	ates (B13) Odor (Coheres alcouced Iron uction in Feed Plants Remarks	(C4) Plowed So	Roots (C3)	Se W D D S X G S X F. R R F	condary Indicar /ater-Stained L 4A and 4B) rainage Patterr ry-Season Wataturation Visible seomorphic Postallow Aquitard AC-Neutral Testalsed Ant Mour	tors (2 or more eaves (B9) (ML ns (B10) ter Table (C2) le on Aerial Ima sition (D2) d (D3) st (D5) nds (D6) (LRR	required) RA 1, 2,

Project/Site: Plas Newy	ydd Farm		City/County:	Clark Cour	nty			Sampling	Date:	4/23/2014
Applicant/Owner: Plas Newy	ydd Farm					_	WA	Sampling	Point:	12
<u> </u>	way, T.Stout		Section	n, Township	, Range:	S2, T4N	N, R1W			
Landform (hillslope, terrace, e	· —		-	•						
Subregion (LRR): Northwest)		_)°	_ Datum	: WGS 84
	uvie silt loam, sandy substra									`
Are climatic / hydrologic condi				_		_		(If no, explain		
	oil, or Hydrology									_NO
Are Vegetation, S	oil, or Hydrology		naturally pr	obiematic?	(II fiee	eded, exp	nam any an	swers in Rem	iaiks.)	
SUMMARY OF FINDING	S - Attach site map s	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featur	res, etc.	
Hydrophytic Vegetation Prese	nt? Yes X No)	1.41.0							
Hydric Soil Present?)		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology Present?	Yes X No)	***************************************	a rromana.		_	_	·-	<u> </u>	
Remarks:			1							
VEGETATION										
Tree Stratum (Use scientific	names.)	Absolute % Cover	Dominant Species?	Indicator Status?			t workshee nant Specie			
Populus balsamifera	•	10		FAC	That Are	OBL, F	ACW, or FA	C:	2	(A)
2. Fraxinus latifolia		60	Υ	FACW			Dominant	'		
3					Species	Across A	All Strata:		2	_(B)
4					Percent	of Domir	nant Specie	s		
	Total Cover:	70			That Are	e OBL, F	ACW, or FA	·C:	100%	_(A/B)
Shrub Stratum							ex Workshe			
1. 2.						tal % Cov	/er ot:		Itiply by: 0	_
3.				· ——		-		x1 = x2 =	0	_
4.				· ——	FAC spe	_		x3 =	0	_
5.						-		x4 =	0	
	Total Cover:	0			UPL spe	-		x5 =	0	_
Herb Stratum					Column	Totals:	0	(A)	0	(B)
Phalaris arundinacea		80	Υ	FACW	Preva	lence Ind	lex = B/A =	#DI	V/0!	_
2. Urtica dioica		20		FAC						
3. Galium aparine		10		FACU	Hydrop		getation Inc			
4								Hydrophytic V	egetation	
5					<u> </u>		ninance Tes			
6					#####		alence Inde			
7.				· ———			_	daptation1 (F		porting
_								on a separat	•	
40				· ——				ohytic Vegeta		in)
11.				· ——		FIODIEII	natic riyuro	Jilylic vegela	шоп (Ехріа	III <i>)</i>
11.	Total Cover:	110								
Woody Vine Stratum 1.	10.01001.							wetland hydr		
2.	_			-	Hydrop	hytic				
	Total Cover:	0			Vegetat					
% Bare Ground i			otic Crust	0	Present			Yes X	No	
Remarks:					I					

	• •		epth needed to						,		
Depth	Matrix			Redox Featu	ires						
(inches)	Color (moist)	<u>%</u>	Color (mois	st) %	Type ¹	Loc ²	Textu	re		Remarks	
0-4	10 YR 4/2	100					SANDY L	_OAM			
4-7	10 YR 4/2	98	10 YR 4/4	2	<u>C</u>	M					
7-9	10 YR 4/1	100					SANDY L				
9-16	10 YR 5/2	80	7.5 YR 3/4	15	<u>C</u>	<u>M</u>	SILT LOA	<u> </u>			
			10 YR 6/1	5	D	M					
Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Ma	atrix, CS=Cove	red or Coa	ted Sand	d Grains. ² l	Location:	: PL=Pore Lir	ning, M=Matrix.	
Hydric So	il Indicators: (Applic	able to a	III LRRs, unles	s otherwise n	oted.)		Indicator	rs for Pr	oblematic Hy	dric Soils ³ :	
Histo	osol (A1)		Sa	indy Redox (S	5)			2	cm Muck (A1	10)	
	c Epipedon (A2)			ripped Matrix (Red Parent Ma		
	K Histic (A3)			amy Mucky Mi		except l	MLRA 1)	c	Other (Explain	in Remarks)	
	ogen Sulfide (A4)			amy Gleyed M							
	eted Below Dark Surfa	ce (A11)		epleted Matrix (2				
	Dark Surface (A12)			edox Dark Surf						vegetation and	
	ly Muck Mineral (S2)			epleted Dark Si	, ,		W		ydrology mus	•	
	ly gleyed Matrix (S4)		Re	edox Depression	ns (F8)			unless c	disturbed or pi	roblematic.	
Restrictiv	e Layer (if present):										
Type: Depth (inc emarks:	hes):					Ну	rdric Soil P	resent?		Yes X	No
Depth (incentification) Output Outpu	GY					Ну	dric Soil P	resent?		Yes <u>X</u>	No
Depth (incentarial contents) OROLOG Wetland H	SY Hydrology Indicators:					Ну	dric Soil P				
Depth (inc emarks: 'OROLOG Wetland F Primary In	GY Hydrology Indicators: dicators (any one indic		•					Se	econdary Indic	cators (2 or mo	re required)
Depth (inc emarks: DROLOG Wetland H Primary In	Hydrology Indicators: dicators (any one indicators (A1)		Wa	ater-Stained Le				Se	econdary Indic Vater-Stained	cators (2 or moi Leaves (B9) (I	re required)
Primary In Surfa High	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		Wa	MLRA 1, 2, 4A				SeV	econdary Indic Vater-Stained 4A and 4B)	cators (2 or mor Leaves (B9) (I	re required)
OPPTIME SUFFER STATE OF THE PRIME SUFFER SUF	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2) ration (A3)		Wa	MLRA 1, 2, 4 <i>A</i> alt Crust (B11)	and 4B)	(except		Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte	cators (2 or mod Leaves (B9) (f) erns (B10)	re required)
OPPOLOGE Wetland F Primary In Surfa High Satur Wate	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2) ration (A3) er Marks (B1)		Wa	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr	and 4B)	(except		SeV	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	cators (2 or mor Leaves (B9) (I) erns (B10) dater Table (C2	re required) MLRA 1, 2,
CDROLOG Wetland F Primary In Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Wa Sa Aq Hy	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr rdrogen Sulfide	and 4B) ates (B13) Odor (C1)	(except		Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi	cators (2 or mor Leaves (B9) (I) erns (B10) rater Table (C2 ble on Aerial In	re required) MLRA 1, 2,
Primary In Surfa High Satur Wate Sedir Drift	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3)		Wa Sa Aq Hy Ox	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr rdrogen Sulfide kidized Rhizosp	ates (B13) Odor (C1) Oheres alor	(except			econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po	cators (2 or mor Leaves (B9) (I erns (B10) dater Table (C2 ble on Aerial In osition (D2)	re required) MLRA 1, 2,
Primary In Satur Wate Sedir Drift Algal	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		Wa Sa Aq Hy Ox Pro	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebratogen Sulfide kidized Rhizospesence of Red	ates (B13) Odor (C1) Oheres alor uced Iron ((except	Roots (C3)	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita	cators (2 or more Leaves (B9) (Incomplete (B10)) Cater Table (C2) Cater Table (C2) Cater (D2) Cater (D3)	re required) MLRA 1, 2,
Primary In Satur Wate Sedir Algal	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		Wa Sa Aq Hy Ox Pro Re	MLRA 1, 2, 44 alt Crust (B11) juatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redu	ates (B13) Odor (C1) Oheres alor uced Iron ((except) ng Living C4) owed So	Roots (C3)	Se W D D D D S X S X F	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T	eators (2 or more Leaves (B9) (Incomplete (B10) eater Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5)	re required) MLRA 1, 2,) nagery (C9)
/DROLOG Wetland H Primary In Satur Wate Sedir Algal Iron I Surfa	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Was Sa Aq Aq Hy Ox Pro	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redunted or Stress	ates (B13) c Odor (C1) cheres alor uced Iron (uction in Pl sed Plants	(except) ng Living C4) owed So	Roots (C3)	Se V C C C C C C C C C C C C C C C C C C	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or more Leaves (B9) (II) erns (B10) fater Table (C2) ble on Aerial Incosition (D2) ard (D3) est (D5) evends (D6) (LR	re required) MLRA 1, 2, nagery (C9)
Primary In Surfa High Satur Wate Sedir Drift Algal Iron I Surfa	dicators: dicators: dicators (any one indicators (any one indicators (any one indicators) (ace Water (A1)) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	— Wa Sa — Sa — Aq Hy — Ox — Pro Re Stu (B7) — Ott	MLRA 1, 2, 44 alt Crust (B11) juatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redu	ates (B13) c Odor (C1) cheres alor uced Iron (uction in Pl sed Plants	(except) ng Living C4) owed So	Roots (C3)	Se V C C C C C C C C C C C C C C C C C C	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or more Leaves (B9) (Incomplete (B10) eater Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5)	re required) MLRA 1, 2, nagery (C9)
Primary In Satur Wate Sedir Algal Iron I Surfa Surfa Algal Surfa Surfa Surfa Surfa	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (ace Soil Vegetated Concavers)	ator is su	— Wa Sa — Sa — Aq Hy — Ox — Pro Re Stu (B7) — Ott	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redunted or Stress	ates (B13) c Odor (C1) cheres alor uced Iron (uction in Pl sed Plants	(except) ng Living C4) owed So	Roots (C3)	Se V C C C C C C C C C C C C C C C C C C	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or more Leaves (B9) (II) erns (B10) fater Table (C2) ble on Aerial Incosition (D2) ard (D3) est (D5) evends (D6) (LR	re required) MLRA 1, 2, nagery (C9)
Primary In Satur Wate Sedir Algal Iron I Surfa Surfa Field Obs	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (ace water) (ace water) sely Vegetated Concaveryations:	Imagery ve Surfac	Wa Sa Aq Hy Ox Pro Re Sto Sto Ot se (B8)	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide didized Rhizospesence of Red ecent Iron Redunted or Stress her (Explain in	ates (B13) Odor (C1) Oheres alor uced Iron (uction in Pl sed Plants Remarks)	(except) ng Living C4) owed So	Roots (C3)	Se V C C C C C C C C C C C C C C C C C C	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or more Leaves (B9) (II) erns (B10) fater Table (C2) ble on Aerial Incosition (D2) ard (D3) est (D5) evends (D6) (LR	re required) MLRA 1, 2, nagery (C9)
Primary In Satur Wate Sedir Algal Iron I Surfa Inunc Spare	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (ace Soil Vegetated Concavers)	Imagery ve Surfac	Wa Sa Aq Hy Ox Ox Pro Re Sto Sto Ot le (B8) No X I	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide didized Rhizospesence of Red ecent Iron Redunted or Stress her (Explain in	ates (B13) Odor (C1) Oheres alor uced Iron (uction in Pl ed Plants Remarks)	(except) ng Living C4) owed So	Roots (C3)	Se V C C C C C C C C C C C C C C C C C C	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or more Leaves (B9) (II) erns (B10) fater Table (C2) ble on Aerial Incosition (D2) ard (D3) est (D5) evends (D6) (LR	re required) MLRA 1, 2, nagery (C9)
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Primary In Satur Wate Sedir Algal Iron I Surfa Inunc Spare Field Obs Surface W Water tabl Saturation (includes o	dicators (any one indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (any one indicators) dicator (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dicator Visible on Aerial (B4)	Imagery ve Surfac	Wa Sa Aq Hy Ox Ox Pro Re Sto Sto Sto No X No	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide didized Rhizosp esence of Red ecent Iron Redu unted or Stress her (Explain in Depth (inches) Depth (inches)	ates (B13) Odor (C1) Oheres alor uced Iron (uction in Pl sed Plants Remarks)	(except) ng Living C4) owed So (D1) (LR	Roots (C3) oils (C6) tR A) Wetland I	Se W W D X S X F R Hydrolog	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or more Leaves (B9) (I erns (B10) Pater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) bunds (D6) (LR	re required) MLRA 1, 2, nagery (C9)
Primary In Satur Wate Sedir Algal Iron I Surfa Inunc Spare Field Obs Surface W Water tabl Saturation (includes o	dicators (any one indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (any one indicators) dicator (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dicator Visible on Aerial (B4)	Imagery ve Surfac	Wa Sa Aq Hy Ox Ox Pro Re Sto Sto Sto No X No	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide didized Rhizosp esence of Red ecent Iron Redu unted or Stress her (Explain in Depth (inches) Depth (inches)	ates (B13) Odor (C1) Oheres alor uced Iron (uction in Pl sed Plants Remarks)	(except) ng Living C4) owed So (D1) (LR	Roots (C3) oils (C6) tR A) Wetland I	Se W W D X S X F R Hydrolog	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or more Leaves (B9) (I erns (B10) Pater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) bunds (D6) (LR	re required) MLRA 1, 2, nagery (C9)

national/Oversay Disc Nove dd Form		City/Courity.	: Clark Cour	пу		ite: 4/23/20
Applicant/Owner: Plas Newydd Farm				State: WA	_ Sampling Po	int:
nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S2, T4N, R1W		
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concav	e, convex, none): none	8	Slope (%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR A	<u>)</u> Lat:	45.850967°)	Long: 122.77460)6°	Datum: WGS 84
oil Map Unit Name: Sauvie silt loam, sandy substr	atum			NWI Classification:	PFOR	
are climatic / hydrologic conditions on the site typical for t	his time of	year?	Yes 2	X No	_(If no, explain in	ı Remarks)
re Vegetation, Soil, or Hydrology		significantly	/ disturbed?	Are "Normal Circumstance	es" Present? Y	'es X No
re Vegetation, Soil, or Hydrology		naturally pr	oblematic?	(If needed, explain any a	nswers in Remar	ks.)
SUMMARY OF FINDINGS – Attach site map s	showing	sampling	point loca	ations, transects, impo	ortant features	s, etc.
lydrophytic Vegetation Present? Yes X No)					
Hydric Soil Present? Yes No			ampled Are	YAS	No X	
Vetland Hydrology Present? Yes No		within a	a Wetland?		_	
Remarks: Vegetation community is typical of riparian/floor		to footuring	a miss of sunls	and and wattend plants adap	tod to fluctuation	hudrala sia al
/EGETATION	Absolute % Cover	Dominant	Indicator	Dominance Test workshe		
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Speci That Are OBL, FACW, or F		
. Populus balsamifera	20		FAC			(A)
Fraxinus latifolia	40	Y	FACW	Total Number of Dominant Species Across All Strata:		
·				Species Across Air Strata.	4	4 (B)
·				Percent of Dominant Speci		
Total Cover:	: 60			That Are OBL, FACW, or F	AC: <u>75</u>	6% (A/B)
hand Chrotina				Dravelance Index Worksh		
hrub Stratum Rubus armaniasus	20	V	FACU	Prevalence Index Worksh		alv bye
. Rubus armeniacus	20	<u> </u>	1700	Total % Cover of: OBL species	x1 = 0	oly by:
				FACW species		<u>) </u>
·				FAC species		<u>, </u>
·				FACU species		<u>, </u>
Total Cover:	20			UPL species		<u> </u>
erb Stratum				Column Totals: 0	(A) 0) (B)
	15		FACU	Column Totals: 0 Prevalence Index = B/A =	_` '	. ,
. Rubus ursinus	15 10		FACU FACW	-	_` '	`` ′
Rubus ursinus Phalaris arundinacea	10			-	= #DIV/0	`` ′
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80		FACW FAC	Prevalence Index = B/A =	#DIV/0	D!
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FACW FAC	Prevalence Index = B/A = Hydrophytic Vegetation In	mdicators: Hydrophytic Veg	D!
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FACW FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for	#DIV/C ndicators: Hydrophytic Veg est is >50%	D!
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for X 2 - Dominance Te	mdicators: Hydrophytic Vegest is >50% dex is ≤3.0¹	D! etation
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Hydrophytic Vegetation II 1 - Rapid Test for X 2 - Dominance Te ##### 3 - Prevalence Inc	mdicators: Hydrophytic Vegest is >50% dex is ≤3.0¹ Adaptation1 (Pro	etation ovide supporting
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological	#DIV/C ndicators: Hydrophytic Veg est is >50% dex is ≤3.0¹ Adaptation1 (Pro or on a separate s	etation ovide supporting sheet)
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation It 1 - Rapid Test for X 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of	#DIV/C ndicators: Hydrophytic Veg est is >50% dex is ≤3.0¹ Adaptation1 (Pro or on a separate s Vascular PlantS2	etation ovide supporting sheet)
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation In 1 - Rapid Test for X 2 - Dominance Te 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-Version Index 5 - Wetland Non-Version Index 1 - Rapid Test for 1 - Rapid Test for 2 - Dominance Test for 3 - Prevalence Index 5 - Wetland Non-Version Index 5 - Wetland Non-Version Index 1 - Rapid Test for 1 - Rapid Test for 2 - Dominance Test for 3 - Prevalence Index 4 - Morphological data in Remarks of	#DIV/C ndicators: Hydrophytic Veg est is >50% dex is ≤3.0¹ Adaptation1 (Pro or on a separate s Vascular PlantS2	etation ovide supporting sheet)
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-Verblematic Hydro	#DIV/C Indicators: Hydrophytic Vegest is >50% Idex is ≤3.0¹ Adaptation1 (Proor on a separate separ	etation ovide supporting sheet) on ¹ (Explain)
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for X 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-\ Problematic Hydro	#DIV/C Indicators: Hydrophytic Vegest is >50% Index is ≤3.0¹ Index is ≤3.0¹ Index is ≤3.0² Index is ≤3.0	etation ovide supporting sheet) on ¹ (Explain)
Rubus ursinus Phalaris arundinacea Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation II 1 - Rapid Test for 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-Verblematic Hydro	#DIV/C Indicators: Hydrophytic Vegest is >50% Index is ≤3.0¹ Index is ≤3.0¹ Index is ≤3.0² Index is ≤3.0	etation ovide supporting sheet) on ¹ (Explain)
Phalaris arundinacea Urtica dioica Total Cover: Woody Vine Stratum	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation Ir 1 - Rapid Test for X 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-\ Problematic Hydro Indicators of hydric soil and be present, unless disturbe Hydrophytic	#DIV/C Indicators: Hydrophytic Vegest is >50% Index is ≤3.0¹ Index is ≤3.0¹ Index is ≤3.0² Index is ≤3.0	etation ovide supporting sheet) on ¹ (Explain)
. Rubus ursinus . Phalaris arundinacea . Urtica dioica	10 80	Y	FAC	Prevalence Index = B/A = Hydrophytic Vegetation Ir 1 - Rapid Test for X 2 - Dominance Te ##### 3 - Prevalence Ind 4 - Morphological data in Remarks of 5 - Wetland Non-\ Problematic Hydro Indicators of hydric soil and be present, unless disturbe	#DIV/C Indicators: Hydrophytic Vegest is >50% dex is ≤3.0¹ Adaptation1 (Proor on a separate selection of the composition of t	etation ovide supporting sheet) on ¹ (Explain)

							Samı			
rofile Description: (Describe	to the dep	oth needed			or or con	firm the abse	ence of indic	cators.)		
epth Matrix			Redox Fe							
nches) Color (moist)	<u> </u>	Color (m	oist) %	Type ¹	Loc ²	Texture			Remarks	
2 10 YR 3/1	100					SANDY LC	DAM			
16 10 YR 4/2	100					SAND				
	- —— ·									
ype: C=Concentration, D=Dep	letion PM	=Paducad I	Matrix CS=Co	wered or Co	ted Sand	Grains ² l c	ocation: DI =	Pore Linir	na M=Matrix	,
					aleu Sanu					\.
ydric Soil Indicators: (Applic	able to all			-		indicators	for Problem	-		
Histosol (A1)			Sandy Redox (-		luck (A10		
Histic Epipedon (A2)			Stripped Matrix		/avaant	MI DA 4)			erial (TF2)	
Black Histic (A3)			Loamy Mucky		(except i	VILKA 1)	Other (Explain in	Remarks)	
_ Hydrogen Sulfide (A4)			Loamy Gleyed							
_ Depleted Below Dark Surfa	ce (A11)		Depleted Matri			3				
_ Thick Dark Surface (A12)			Redox Dark Su		_		ators of hydr		-	id
Sandy Muck Mineral (S2)			Depleted Dark)		tland hydrolo		•	
_ Sandy gleyed Matrix (S4)			Redox Depres	sions (F8)		u	nless disturb	ed or pro	blematic.	
strictive Layer (if present):										
epth (inches):					Ну	dric Soil Pre	esent?	Ye	es	<u>No X</u>
epth (inches):					Ну	dric Soil Pre	sent?	Ye	9S	No X
epth (inches): narks: DROLOGY etland Hydrology Indicators:		icient)			Ну	dric Soil Pre			tors (2 or mo	
epth (inches): parks: PROLOGY etland Hydrology Indicators:			Water-Stained	Leaves (B9		dric Soil Pre	Seconda	ary Indicat	tors (2 or mo	ore require
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic				•		dric Soil Pre	Seconda Water-	ary Indicat		ore require
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic Surface Water (A1) High Water Table (A2)			MLRA 1, 2,	4A and 4B)		dric Soil Pre	Seconda Water-	ary Indicat Stained L and 4B)	tors (2 or mo	ore require
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3)			MLRA 1, 2, Salt Crust (B1	4A and 4B)) (except	dric Soil Pre	Seconda Water- 4A a	ary Indicat Stained L and 4B) ge Patterr	tors (2 or mo eaves (B9) ons (B10)	ore require
ROLOGY etland Hydrology Indicators: mary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)			MLRA 1, 2, Salt Crust (B1 ² Aquatic Inverte	4A and 4B) 1) ebrates (B13) (except	dric Soil Pre	Seconda Water- 4A a Draina Dry-Se	ary Indicat Stained L and 4B) ge Patterr ason Wat	tors (2 or mo eaves (B9) ons (B10) ter Table (C2	ore require (MLRA 1,
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)			MLRA 1, 2, Salt Crust (B1 ² Aquatic Inverte Hydrogen Sulfi	4A and 4B) 1) ebrates (B13) ide Odor (C1)) (except		Seconda Water- 4A a Draina Dry-Se Saturat	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visibl	tors (2 or mo eaves (B9) ons (B10) ter Table (C2 e on Aerial I	ore require (MLRA 1,
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)			MLRA 1, 2, Salt Crust (B1 [,] Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo	4A and 4B) 1) ebrates (B13 ide Odor (C1 ospheres alo) (except)) ng Living		Seconda Water- 4A a Drainae Dry-Se Saturae Geomo	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visible orphic Pos	tors (2 or mo eaves (B9) ons (B10) ter Table (C2 e on Aerial I sition (D2)	ore require (MLRA 1,
ROLOGY etland Hydrology Indicators: imary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)			MLRA 1, 2, Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of R	4A and 4B) 1) ebrates (B13 ide Odor (C1 ospheres alo educed Iron) (except)) ng Living (C4)	Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visible orphic Pos v Aquitaro	tors (2 or mo eaves (B9) ons (B10) ter Table (C2) e on Aerial I sition (D2)	ore require (MLRA 1,
ROLOGY etland Hydrology Indicators: imary Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)			MLRA 1, 2, Salt Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of R Recent Iron Re	4A and 4B) 1) ebrates (B13 ide Odor (C1 espheres alo educed Iron eduction in P) (except)) ng Living (C4) lowed So	Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-N	ary Indicate Stained Land 4B) ge Patterrason Waterion Visible or phic Posev Aquitarce	tors (2 or mo eaves (B9) ons (B10) for Table (C2) e on Aerial I sition (D2) d (D3) st (D5)	ore require (MLRA 1, 2) 2) magery (C
ROLOGY etland Hydrology Indicators: mary Indicators (any one indic Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	ator is suff		MLRA 1, 2, Salt Crust (B1* Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of R Recent Iron Re Stunted or Stre	4A and 4B) 1) ebrates (B13 ide Odor (C1 ospheres alo educed Iron eduction in P essed Plants) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visible ion Visible orphic Pos v Aquitard eutral Tes Ant Mour	tors (2 or more eaves (B9) of the state (C2) e on Aerial I sition (D2) d (D3) st (D5) ands (D6) (LF	ore require (MLRA 1, 2 2) Imagery (C
PROLOGY etland Hydrology Indicators: imary Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ator is suff	——————————————————————————————————————	MLRA 1, 2, Salt Crust (B1 Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of R Recent Iron Re	4A and 4B) 1) ebrates (B13 ide Odor (C1 ospheres alo educed Iron eduction in P essed Plants) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visible ion Visible orphic Pos v Aquitard eutral Tes Ant Mour	tors (2 or mo eaves (B9) ons (B10) for Table (C2) e on Aerial I sition (D2) d (D3) st (D5)	ore require (MLRA 1, 2 2) Imagery (C
PROLOGY etland Hydrology Indicators: imary Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concarell	Imagery (Eve Surface	37)(B8)	MLRA 1, 2, Salt Crust (B1: Aquatic Inverte Hydrogen Sulfi Oxidized Rhize Presence of R: Recent Iron Re Stunted or Stre Other (Explain	4A and 4B) 1) ebrates (B13 ide Odor (C1 ospheres alo educed Iron eduction in P essed Plants in Remarks) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Seconda Water- 4A a Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	ary Indicat Stained L and 4B) ge Patterr ason Wat ion Visible ion Visible orphic Pos v Aquitard eutral Tes Ant Mour	tors (2 or more eaves (B9) of the state (C2) e on Aerial I sition (D2) d (D3) st (D5) ands (D6) (LF	ore require (MLRA 1, 2 2) Imagery (C
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Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sam	oling Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sam	oling Point:	14
Investigator(s):	B. Haddaway, T.Stou	t		Section	n, Township	, Range:	S2, T41	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concave	e, convex	, none):	none		Slope (%	%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests an	d Coast (LRR A) Lat:	45.850967°			Long:	122.77460	6°	Datu	m: WGS 84
Soil Map Unit Nam	ne: Sauvie silt loa	m, sandy substr	atum				NWI Cla	ssification:	PFOR	<u></u>	
Are climatic / hydro	ologic conditions on the	site typical for t	his time of y	/ear?	Yes 2	X	No		(If no, e	xplain in Rema	rks)
Are Vegetation	, Soil,				_						
Are Vegetation	, Soil									Remarks.)	
-	FINDINGS - Atta							-			
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No			ampled Area	a	Yes	Χ	No		
Wetland Hydrolog		Yes X No		within	a Wetland?		•				
Remarks:	y 1 1000m.	700 <u>77 </u>	<u></u>								
VEGETATION											
			Absolute % Cover	Dominant Species?	Indicator Status?			t workshe			
	se scientific names.)							nant Speci ACW, or F			
1. Fraxinus latifo	lia		50	Y	FACW					4	(A)
2				-	. ———			Dominant All Strata:			(5)
3.						Opecies	ACIOSS	All Ollala.		4	(B)
4								nant Speci			
		Total Cover:	50			That Are	OBL, F	ACW, or F	AC:	100%	(A/B)
Ohanah Ohanhara						Daniela		\4/	4-		
Shrub Stratum			40		FACW			ex Worksh	eet:	NA. Itim b b	
1. Cornus alba			10			-	al % Co			Multiply by:	
2. Rosa nutkana			20		FAC FAC	OBL spe				0	
Lonicera invol Rubus armeni				<u>T</u>	FACU					0	
 Rubus armeni Rubus armeni 	acus		5		1700	FAC spe				0	
5.		Total Cover:			. ——	UPL spe				0	
Herb Stratum		Total Cover:	55			Column			_x5 =	0	(B)
1. Phalaris arund	linacaa		75	V	FACW			dex = B/A =	_(A)	#DIV/0!	(B)
Galium aparin			2		FACU	rieva	ence mo	JEX - D/A -		#DIV/0:	
3.	<u>C</u>					Hydron	hytic Va	getation Ir	dicators	••	
4.						Пушор	-	_		ytic Vegetation	
								ninance Te		-	
								valence Inc			
7										.o n1 (Provide su	nnorting
					. ——				•	eparate sheet)	pporting
_		<u> </u>		-				tland Non-\		. ,	
										egetation ¹ (Exp	lain)
11.				-			1 TODICI	nado riyare	opriyao v	egetation (Exp	idiii)
· · · <u> </u>		Total Cover:	77	-							
Woody Vine S	tratum	rotal Gover.				1Indicate	are of hw	dric soil an	d wetland	l hydrology mus	ot.
1.	di di di in							ss disturbe			51
2.		-			-				- p	'	
<u> </u>		Total Cover:	0			Hydrop					
% Ra	re Ground in Herb Stra			otic Crust	0	Vegetat Present			Yes X	No	
Remarks:	Ground in Field Olia		COVCI OI BI	ono Orust		636111	•			140	
inciliains.											

SOIL											Sampling Po	oint:	1
Profile De	escription: (Describe	to the de	epth neede	ed to documer	nt th	e indicat	or or c	onfi	rm the abs	sence of	indicators.)		
Depth	Matrix			Redox F	eatu	res							
(inches)	Color (moist)	%	Color (moist) %	6	Type ¹	Loc	2	Textur	e		Remark	S
0-4	10 YR 3/2	100							SILT LOA	M			
4-9	10 YR 4/2	85	10 YR 4/4	4	5	С	М		SILT LOA	M			
			10 YR 4/4	4	5	С	PL						
			10 YR 6/	1	5	D	М						
9-12	10 YR 5/2	88	7.5 YR 3/	<u> </u>	10	C	М		SILT LOA	M			
			10 YR 6/	<u> </u>	2	D	М						
12-16	10 YR 5/2	70	10 YR 6/	<u> </u>	10	D	M		SILT LOA	M			
1 .	· .		5 YR 4/6		20	С	М						
'Type: C=	Concentration, D=Dep	oletion, RN	M=Reduced	d Matrix, CS=C	Cove	red or Co	ated Sa	and (Grains. ² L	ocation:	PL=Pore Lir	ning, M=Matr	ix.
Black Hydre X Deple Thick Sand Sand Restrictive	c Epipedon (A2) k Histic (A3) ogen Sulfide (A4) eted Below Dark Surfa k Dark Surface (A12) dy Muck Mineral (S2) dy gleyed Matrix (S4) e Layer (if present):	ce (A11)		Stripped Mat Loamy Muck Loamy Gleye Depleted Ma Redox Dark Depleted Dar Redox Depre	y Mir ed Ma atrix (Surfa rk Su	neral (F1) atrix (F2) F3) ace (F6) urface (F7	` •	pt M	³ Indi w	O icators of etland hy	ed Parent Ma ther (Explain f hydrophytic /drology mus isturbed or pi	in Remarks) vegetation a t be present,	
Type: Depth (inc	hes):							Hyd	ric Soil Pr	esent?		Yes X	No
Depth (inc Remarks: HYDROLOG Wetland F	SY Hydrology Indicators: dicators (any one indic		fficient)	Water-Stains	ad I e	aves (B0			ric Soil Pr	Sec	condary Indic	cators (2 or m	nore required)
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc	Hydrology Indicators: dicators (any one indicators (A1)		fficient)	Water-Staine					ric Soil Pr	Sec	condary Indic /ater-Stained	cators (2 or m Leaves (B9)	
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		fficient)	MLRA 1, 2	2, 4A				ric Soil Pr	See W	condary Indic /ater-Stained 4A and 4B	cators (2 or m Leaves (B9)	nore required)
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3)		fficient)	MLRA 1, 2 Salt Crust (B	2, 4A 311)	and 4B)) (exce		ric Soil Pr		condary Indic /ater-Stained 4A and 4B) rainage Patte	cators (2 or m Leaves (B9)) erns (B10)	nore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2) ration (A3) er Marks (B1)		fficient)	MLRA 1, 2 Salt Crust (B Aquatic Inve	2, 4A 311) rtebra	and 4B)) (exce		ric Soil Pr	Sec	condary Indic /ater-Stained 4A and 4B / rainage Patte ry-Season W	cators (2 or m Leaves (B9)) erns (B10) later Table (C	nore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (any one indicators (A1) water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		fficient)	MLRA 1, 2 Salt Crust (B Aquatic Invel Hydrogen Su	2, 4A 311) rtebra ulfide	and 4B) ates (B13 Odor (C1) (exce	ept		Sec	condary Indic /ater-Stained 4A and 4B ; rainage Patte ry-Season W aturation Visi	cators (2 or m Leaves (B9)) erns (B10) dater Table (College)	nore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate Sedir Drift	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3)			MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi	2, 4A 311) rtebra ulfide izosp	and 4B) ates (B13 Odor (C2 heres alo) (exce	ept		See	condary Indic /ater-Stained 4A and 4B) rainage Patte ry-Season W aturation Visi eomorphic P	cators (2 or m Leaves (B9)) erns (B10) fater Table (C ble on Aerial osition (D2)	nore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate Sedir Drift I	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)			MLRA 1, 2 Salt Crust (B Aquatic Invertydrogen Su Oxidized Rhi Presence of	2, 4A 311) rtebra ulfide izosp Redu	and 4B) ates (B13 Odor (C´ heres alo uced Iron) (exce	ept	Roots (C3)		condary Indic /ater-Stained 4A and 4B rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita	cators (2 or m Leaves (B9)) erns (B10) dater Table (Coble on Aerial osition (D2) ard (D3)	nore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate Sedir Drift I Algal	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)			MLRA 1, 2 Salt Crust (B Aquatic Invertigation of the control of th	2, 4A 311) rtebra ulfide izosp Redu Redu	ates (B13 Odor (C heres alouced Iron action in F) (exce)) ng Livii (C4)	ept ing F	Roots (C3)		condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T	cators (2 or m Leaves (B9)) erns (B10) later Table (C ble on Aerial osition (D2) ard (D3) fest (D5)	ore required) (MLRA 1, 2,
Depth (inc Remarks: HYDROLOG Wetland F Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron I Surfa	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	cator is su	<u>x</u>	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or St	2, 4A 311) rtebra ulfide izosp Redu Redu tress	and 4B) ates (B13 Odor (C2 heres alouced Iron action in Fed Plants) (exce) ng Livi (C4) llowed (D1) (I	ept ing F	Roots (C3)	See W	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T aised Ant Mo	cators (2 or m Leaves (B9)) erns (B10) dater Table (Catorial osition (D2) ard (D3) est (D5) ounds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
Depth (incomplete incomplete inco	dicators: (any one indicators: dicators (any one indicators (any one indicators: dicators (A1) Water Table (A2) Fration (A3) Fration (A3) Fration (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ace Soil Cracks (B6) dation Visible on Aerial	ator is su	X 	MLRA 1, 2 Salt Crust (B Aquatic Invertigation of the control of th	2, 4A 311) rtebra ulfide izosp Redu Redu tress	and 4B) ates (B13 Odor (C2 heres alouced Iron action in Fed Plants) (exce) ng Livi (C4) llowed (D1) (I	ept ing F	Roots (C3)	See W	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T	cators (2 or m Leaves (B9)) erns (B10) dater Table (Catorial osition (D2) ard (D3) est (D5) ounds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
Depth (inconservation) Remarks: HYDROLOG Wetland F Primary Inconservation Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concav	ator is su	X 	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or St	2, 4A 311) rtebra ulfide izosp Redu Redu tress	and 4B) ates (B13 Odor (C2 heres alouced Iron action in Fed Plants) (exce) ng Livi (C4) llowed (D1) (I	ept ing F	Roots (C3)	See W	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T aised Ant Mo	cators (2 or m Leaves (B9)) erns (B10) dater Table (Catorial osition (D2) ard (D3) est (D5) ounds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
Depth (inconservation) Remarks: HYDROLOG Wetland F Primary Inconservation Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars	dicators: (any one indicators: dicators (any one indicators (any one indicators: dicators (A1) Water Table (A2) Fration (A3) Fration (A3) Fration (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ace Soil Cracks (B6) dation Visible on Aerial	ator is su Imagery ve Surface	X 	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or St	2, 4A 311) rtebra ulfide izosp Redu Redu tress	and 4B) ates (B13 Odor (C' heres ald uced Iron action in F ed Plants Remarks) (exce) ng Livi (C4) llowed (D1) (I	ept ing F	Roots (C3)	See W	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T aised Ant Mo	cators (2 or m Leaves (B9)) erns (B10) dater Table (Catorial osition (D2) ard (D3) est (D5) ounds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)
Depth (inconserved) Remarks: HYDROLOG Wetland F Primary Inconserved Surfa Ligh Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obs Surface W Water table	dicators (any one indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (any one indicators) dicator (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dicator Visible on Aerial sely Vegetated Concavery ervations: //der Present? Yes e Present? Yes	I Imagery ve Surfaces	(B7) e (B8) X X No X X	MLRA 1, 2 Salt Crust (B Aquatic Invertigation of the control of th	2, 4A 811) rtebra lizosp Redu Redu tress in in	and 4B) ates (B13 Odor (C' heres ald uced Iron action in F ed Plants Remarks) (exce) ng Livi (C4) llowed (D1) (I	ept Soils	Roots (C3) s (C6)	See W Di Si X G X F/ Ri Fr	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T aised Ant Mo	cators (2 or m Leaves (B9)) erns (B10) dater Table (Coble on Aerial osition (D2) ard (D3) dest (D5) bunds (D6) (Loummocks (D	nore required) (MLRA 1, 2, C2) Imagery (C9) RR A)
Depth (inconserved) Remarks: HYDROLOG Wetland F Primary Inconserved Surface Sedir Livery Sedir	dicators (any one indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (any one indicators) dicator (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dicator Visible on Aerial sely Vegetated Concavery ervations: //der Present? Yes e Present? Yes	I Imagery ve Surfaces	(B7) e (B8)	MLRA 1, 2 Salt Crust (B Aquatic Inverted Inverte	2, 4A 811) rtebra lizosp Redu Redu tress in in	and 4B) ates (B13 Odor (C' heres ald uced Iron action in F ed Plants Remarks) (exce) ng Livi (C4) llowed (D1) (I	ept Soils	Roots (C3) s (C6)	See W Di Si X G X F/ Ri Fr	condary Indic /ater-Stained 4A and 4B; rainage Patte ry-Season W aturation Visi eomorphic P hallow Aquita AC-Neutral T aised Ant Mo	cators (2 or m Leaves (B9)) erns (B10) dater Table (Catorial osition (D2) ard (D3) est (D5) ounds (D6) (L	(MLRA 1, 2, C2) Imagery (C9)

Remarks:

Project/Site:	Plas Newydd Farm	1		City/County	: Clark Cour	nty			San	npling Da	te:	4/23/2014
Applicant/Owner:	Plas Newydd Farm	1					State:	WA	San	npling Po	int:	15
Investigator(s):	B. Haddaway, T.S	tout		Sectio	n, Township	, Range:	S2, T4I	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		s	Slope (%)): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967	0		Long:	122.77460)6°		Datun	n: WGS 84
Soil Map Unit Nam		oam, sandy substr						ssification:	PFOR			
Are climatic / hydr	ologic conditions on	the site typical for t	his time of y	/ear?	Yes _	<u>X</u>	No		_(If no,	explain ir	Remark	(s)
Are Vegetation	, Soil						lormal C	ircumstand	es" Pre	sent? Y	'es X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers i	n Remarl	ks.)	
SUMMARY OF	FINDINGS – A	tach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	rtant f	eatures	s, etc.	
Hydrophytic Veget	tation Present?	Yes X No)									
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	Χ	No			
Wetland Hydrolog	y Present?	Yes X No)	Within	a welland:		•					
Remarks:	-											
VEGETATION												
Tree Stratum (U	se scientific names.	1	Absolute % Cover	Dominant Species?	Indicator Status?			st workshe inant Spec				
Populus balsa	•	•	20	Y	FAC	That Are	OBL, F	ACW, or F	AC:	3	3	(A)
2. Fraxinus latifo		_	40		FACW	Total Nu	ımber of	Dominant				_` ′
3.						Species	Across	All Strata:		4	ı	(B)
4.						Percent	of Domi	nant Speci	es			_
		Total Cover:	60					ACW, or F		75	%	(A/B)
Shrub Stratum						Prevale	nce Ind	ex Worksh	eet:			
1. Symphoricarp			10	<u>Y</u>	FACU	-	tal % Co				ly by:	_
2. Rubus armeni	iacus		2		FACU	OBL spe				0		_
3.												_
4 5.						FAC Spe				0		_
o		Total Cover:	12	-		UPL spe			_ x4 = x5 =) n	_
Herb Stratum		Total Gover.	12			Column		0	_		,)	(B)
1. Phalaris arund	dinacea		80	Υ	FACW			dex = B/A =				_(5)
Galium aparin			5	<u> </u>	FACU			2011			<u> </u>	_
3.				-		Hydrop	hytic Ve	getation li	ndicato	rs:		
4.							1 - Rap	oid Test for	Hydropl	hytic Veg	etation	
5.						X	2 - Don	ninance Te	est is >50	0%		
6						#####	3 - Pre	valence Ind	dexis ≤	3.0 ¹		
7							4 - Mor	phological	Adaptat	tion1 (Pro	vide sup	porting
8							data in	Remarks	or on a s	separate s	sheet)	
								tland Non-\				
					·		Probler	matic Hydro	ophytic \	√egetatio	n' (Expla	ain)
11												
March March	Mark as	Total Cover:	85			1						
Woody Vine S	<u>stratum</u>							dric soil an ss disturbe				
1 2.							· ·	oo alotaibe	a or pro	aiomalio.		
<u> </u>		Total Cover:		-		Hydrop						
% Ra	re Ground in Herb S			otic Crust	0	Vegetat Present			Yes Y		No	
Remarks:			20 VOI OI DI	- Cito Orusi		1 1036111	••		.03 /			
Tomains.												

								Sampling Point:	15
Profile D	escription: (Describe	to the de	epth needed to do	cument th	e indicat	or or con	firm the absenc	e of indicators.)	
Depth	Matrix		Re	edox Featu	ıres		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10 YR 4/2	100					SILT LOAM		
2-6	10 YR 4/2	90	10 YR 4/4	5	С	М	SILT LOAM		
			10 YR 6/2	5	D	М			
6-10	10 YR 4/2	80	10 YR 6/1	10	D	М	SILT LOAM		
			10 YR 4/4	5	С	М			
			10 YR 5/1	5	D	М			
10-16	10 YR 5/2	75	10 YR 6/1	10	D	М			
			5 YR 4/6	15	С	М		-	
Type: C	=Concentration, D=Dep	pletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated San	d Grains. ² Locat	ion: PL=Pore Lining, M=Matrix.	
Uvdria C	ail Indiantara, /Annlis	ashla ta s	III I DDa uniosa at	hamuiaa n	otod \		Indicators for	Problematic Hydric Soils ³ :	
-	oil Indicators: (Applic osol (A1)	cable to a		nerwise n Redox (St	-		indicators for	2 cm Muck (A10)	
	ic Epipedon (A2)			ed Matrix (S	•			Red Parent Material (TF2)	
						\ (avaant		Other (Explain in Remarks)	
	ck Histic (A3)			Mucky Mi Gleyed M			WILKA I)	_ Other (Explain in Remarks)	
	rogen Sulfide (A4) leted Below Dark Surfa	200 (411)		•	•)			
		ace (ATT)		ed Matrix (31	as of budges budges as set of	
	ck Dark Surface (A12)			Dark Surf		7 \		rs of hydrophytic vegetation and	
	dy Muck Mineral (S2)			ed Dark Si		7)		d hydrology must be present,	
	dy gleyed Matrix (S4)		Redox	Depression	ons (F8)		unie	ss disturbed or problematic.	
Restricti	ve Layer (if present):								
Type:									
Depth (in	ches):					Hy	/dric Soil Presei	<u>Yes X</u> No	
	ches):					Hy	ydric Soil Presei	nt? Yes <u>X</u> No	
	ches):					Ну	/dric Soil Presei	nt? Yes <u>X</u> No	
marks:						Ну	/dric Soil Presei	nt? Yes <u>X</u> No	
emarks:		:				Ну	dric Soil Presei	nt? Yes <u>X</u> No	
emarks: /DROLO Wetland	GY		fficient)			Ну	/dric Soil Presei	Secondary Indicators (2 or more require	ed)
emarks: /DROLO Wetland Primary I	GY Hydrology Indicators			Stained Le	eaves (B9				
emarks: 'DROLO Wetland Primary II Surf	GY Hydrology Indicators ndicators (any one indic		Water-	Stained Le)) (except		Secondary Indicators (2 or more require	
Metland Primary II Surf	GY Hydrology Indicators ndicators (any one indicator (A1)		Water-)) (except		Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1 ,	
Primary li Surf	GY Hydrology Indicators ndicators (any one indicators (A1) n Water Table (A2)		Water- MLF Salt Cr	RA 1, 2, 4A	and 4B	except		Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B)	
Primary II Surf High Satu	GY Hydrology Indicators ndicators (any one indicator (A1) n Water Table (A2) uration (A3)		Water- MLF Salt Cr Aquatio	R A 1, 2, 4A rust (B11)	and 4B	9) (except)		Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10)	2,
Primary II Surf High Satu Wat	GY Hydrology Indicators ndicators (any one indicator (A1) n Water Table (A2) uration (A3) ter Marks (B1)		Water- MLF Salt Cr Aquatio Hydrog	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide	and 4B rates (B13 Odor (C	9) (except) 3)		Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)	2,
CDROLO Wetland Primary li Surf High Satu Wat Sed Driff	GY Hydrology Indicators indicators (any one indicators (A1) in Water Table (A2) uration (A3) ier Marks (B1) iment Deposits (B2)		Water- MLF Salt Cr Aquatic Hydrog Oxidize	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide	and 4B rates (B13 e Odor (Coheres ald	(except) 3) 1) ong Living		Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C	2,
Primary II Surf High Satu Sed Drift Alga	Hydrology Indicators indicators (any one indicators (A1) in Water Table (A2) iuration (A3) iter Marks (B1) iment Deposits (B2) it Deposits (B3)		Water- MLF Salt Cr Aquatio Hydrog Oxidize Preser	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp	and 4B rates (B13 e Odor (Copheres alouced Iron	9) (except) 3) 1) png Living (C4)	Roots (C3) X	Secondary Indicators (2 or more require 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)	2,
*Marks: **DROLO Wetland Primary li Surf High Satu Wat Sed Driff Alga	GY Hydrology Indicators ndicators (any one indicators (any one ind		Water- MLF Salt Cr Aquatio Hydrog Oxidize Preser Recent	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red	and 4B ates (B13 Odor (C oheres ald uced Iron uction in I	e) (except) 3) 1) ong Living (C4) Plowed Sc	Roots (C3) X	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (California) Geomorphic Position (D2) Shallow Aquitard (D3)	2,
Primary li Surf High Satu Wat Sed Drift Alga Iron Surf	GY Hydrology Indicators Indicators (any one indicators (any one indicators (A1) In Water Table (A2) Idea Marks (B1) Idea Marks (B1) Idea Marks (B2) Idea Deposits (B3) Idea Mat or Crust (B4) Idea Deposits (B5)	cator is su	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recent Stunter	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu	and 4B rates (B13 e Odor (C oheres alo uced Iron uction in I sed Plant	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	2,
CDROLO Wetland Primary li Surf High Satu Vat Sed Driff Alga Iron Surf	Hydrology Indicators Indicators (any one indicators (any one indicators (A1) In Water Table (A2) Indicators (B1) In Water Table (B2) In Marks (B1) In Water Deposits (B2) In Deposits (B3) In Mat or Crust (B4) In Deposits (B5) In Deposits (B5) In Cracks (B6)	cator is su	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recent Stunter (B7) Water-	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress	and 4B rates (B13 e Odor (C oheres alo uced Iron uction in I sed Plant	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calcium Companio Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
Primary II Surf High Satu Sed Drift Alga Iron Surf Inur	GY Hydrology Indicators Indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator) (and indicator) (a	cator is su	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recent Stunter (B7) Water-	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress	and 4B rates (B13 e Odor (C oheres alo uced Iron uction in I sed Plant	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calcium Companio Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
Primary II Surf High Satu Sed Drift Alga Iron Surf Inur Spa	Hydrology Indicators indicators (any one indic	cator is su I Imagery ve Surfac	Water- MLF Salt Cr Aquatio Hydrog Oxidize Preser Recent Stunter (B7) Other (e (B8)	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress	and 4B ates (B13 Odor (Coberes ald uced Iron uction in I sed Plants Remarks	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calcium Companio Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,
Primary II Surf High Satu Sed Drift Alga Iron Surf Inur Spa	Hydrology Indicators Indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator (A2) In Water Table (A2) In Water Table (A2) In Water Table (B4) In In Water Table (B4) In In Water Table (B2) In In In Water Table (B4) In In In Water Table (B4) In In In In In In In In In In In In In I	I Imagery ve Surfac	Water- MLR Salt Cr Aquatic Hydrog Oxidize Preser Recent Stunter ((B7) Other (e (B8) No X Dept No X Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress Explain in	and 4B ates (B13 Odor (Coberes ald uced Iron uction in I sed Plants Remarks	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X Dils (C6) X RR A)	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)	2,
YDROLO Wetland Primary II Surf High Satu Sed Drift Alga Iron Surf Inur Spa Field Obs Surface V Water tak Saturation	GY Hydrology Indicators Indicators (any one i	I Imagery ve Surfac	Water- MLR Salt Cr Aquation Hydrog Oxidize Preser Recent Stunter (B7 Other (e (No X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress Explain in	and 4B ates (B13 codor (Coberes ald uced Iron uction in I sed Plant Remarks	(except b) (except c) 1) nng Living (C4) Plowed So s (D1) (LF	Roots (C3) X Dils (C6) X RR A)	Secondary Indicators (2 or more require Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calcium Companio Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	2,

Remarks:

Project/Site:	Plas Newydd Farm		City/County	: Clark Cour	nty		Sampling I	Date:	4/23/2014
Applicant/Owner:	Plas Newydd Farm					State: WA	Sampling I	Point:	16
Investigator(s):	B. Haddaway, T.Stout		Sectio	n, Township	, Range:	S2, T4N, R1W			
Landform (hillslope	e, terrace, etc.): Floodplain		Local re	elief (concav	e, convex	k, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests and Coast (LRR	(A) Lat:	45.850967°	•		Long: 122.77460)6°	Datum	: WGS 84
Soil Map Unit Nam						NWI Classification		_	
Are climatic / hvdro	ologic conditions on the site typical fo		/ear?	Yes	X	No	(If no, explain	in Remarks	s)
Are Vegetation	, Soil, or Hydrology			_		Normal Circumstand			
Are Vegetation	, Soil , or Hydrology					eded, explain any a			
	FINDINGS – Attach site ma								
Hydrophytic Veget	ation Present? Yes X	No							
Hydric Soil Presen	·	No		ampled Are		Yes X	No		
Wetland Hydrology		No	Within	a Wetland?					
Remarks:	y resent: res <u>x</u>								
VEGETATION									
		Absolute % Cover	Dominant Species?	Indicator Status?		ance Test workshe			
Tree Stratum (U:	se scientific names.)			·		r of Dominant Spec e OBL, FACW, or F			
1. Populus balsa	mifera	70	Υ	FAC	That Air	e OBL, FACW, OFF	AC	2	_(A)
2						umber of Dominant			
3					Species	s Across All Strata:		4	_(B)
4					Percent	t of Dominant Spec	es		
	Total Cov	er: 70			That Ar	e OBL, FACW, or F	AC:	50%	_(A/B)
Shrub Stratum					Prevale	ence Index Worksh	neet:		
1. Symphoricarpo	os albus	20	Υ	FACU	То	tal % Cover of:	Mu	Itiply by:	_
2. Cornus alba		30	Y	FACW	OBL sp	ecies 1	_x1 =	1	_
Lonicera involu	ucrata	10		FAC	FACW :	species 30	_x2 =	60	_
4. Rubus spectal	bilis	5		FAC	FAC sp	ecies 95	_x3 =	285	_
5. Rosa nutkana		10		FAC	FACU s	species <u>25</u>	_x4 =	100	_
	Total Cov	er: <u>75</u>			UPL sp		_x5 =	0	_
Herb Stratum					Column	Totals: 151	_(A)	446	_(B)
1. Rubus ursinus		5	Y	FACU	Preva	llence Index = B/A =	=3.	.0	_
Carex obnupta	7	1		OBL					
3.					Hydrop	hytic Vegetation I	ndicators:		
4						1 - Rapid Test for		egetation	
5						2 - Dominance Te			
6.					X	3 - Prevalence Inc	dex is ≤3.0 ¹		
7						4 - Morphological	Adaptation1 (F	Provide supp	orting
8						data in Remarks	or on a separat	e sheet)	
9.						5 - Wetland Non-	Vascular Plant	S2	
10						Problematic Hydr	ophytic Vegeta	tion¹ (Explai	n)
		er: 6							
Woody Vine S 1.	<u>tratum</u>					ors of hydric soil an ent, unless disturbe			
2.		-			•				
	Total Cov	er: 0		-	Hydrop	•			
% Pa		% Cover of Bi		0	Vegetar Present		Yes X	No	
	revalence Index but not Dominance		one ordst		1 163611	••	163 /	No	
Nomana. Weeks F	Total of the Control	1031							

epth (Matrix		1	Redox Featu	ıres					
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	– Textur	·e	Remarks	8
-3	10 YR 4/2	100					SILT LOA	.M		
6	10 YR 5/2	90	10 YR 5/4	10	С	М	SILT LOA			
10	10 YR 5/2	80	7.5 YR 4/6	5	С	М	SILT LOA	M		
			10 YR 5/4	10	С	М				
			10 YR 6/1	5	D	M				
)-16	10 YR 5/2	55	7.5 YR 4/6	20	С	M	SILT LOA	M		
			10 YR 5/4	15	С	M				
			10 YR 4/1	10	D	М	-			
ype: C=	Concentration, D=Dep	letion, RI	л=Reduced Matri	x, CS=Cove	red or Co	ated Sar	nd Grains. ² L	ocation: PL=P	ore Lining, M=Matri	Х.
Hydro Deple Thick Sand	Histic (A3) ogen Sulfide (A4) oted Below Dark Surfact Dark Surface (A12) y Muck Mineral (S2) y gleyed Matrix (S4)	ce (A11)	X Depl Redo	ny Mucky Miny Gleyed Meted Matrix (bx Dark Surfacted Dark Siver S	atrix (F2) (F3) ace (F6) urface (F7)	³ Ind w	icators of hydro etland hydrolog	xplain in Remarks) phytic vegetation ar y must be present, d or problematic.	nd
estrictive pe: epth (inch	e Layer (if present):					н	ydric Soil Pr	esent?	Yes <u>X</u>	_ No
pe: pe: epth (inch arks:	nes):					Н	ydric Soil Pr	esent?	Yes <u>X</u>	_ No
pe: pet (inch pes) pet (inch pet (in	nes): Y lydrology Indicators: dicators (any one indic							Secondar	y Indicators (2 or m	ore require
pe: peth (inch arks: ROLOG etland H imary Inc	nes): Y lydrology Indicators:			er-Stained Le	eaves (B9			Secondar		ore require
pe: peth (incl arks: ROLOG etland H imary Inc Surfa	nes): Y lydrology Indicators: dicators (any one indic		Wate	er-Stained Le LRA 1, 2, 4A)) (excep		Secondar Water-S	y Indicators (2 or m	ore require
pe: peth (includer) perh (includer) peth (incl	nes): Ny Nydrology Indicators: dicators (any one indicators (A1)		Wate)) (excep		Secondar Water-S 4A ar	y Indicators (2 or m tained Leaves (B9)	ore require
pe: ppth (incl arks: ROLOG etland H mary Inc Surfa High Satur Wate	hes): Valuation		Wate MI Salt	_RA 1, 2, 4A	and 4B)	excep)		Secondar Water-S 4A ar Drainage Dry-Sea	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (C	ore require (MLRA 1,
pe:pth (inch arks: ROLOG etland H mary Inc Surfa High Satur Wate	hes): Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3)		Wate MI Salt	RA 1, 2, 4 <i>A</i> Crust (B11)	and 4B)	9) (excep		Secondar Water-S 4A ar Drainage Dry-Sea	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10)	ore require (MLRA 1,
ROLOG etland H mary Inc Surfa High Satur Wate Sedin	hes): Valuation		Wate MI Salt Aqua Hydr Oxid	LRA 1, 2, 4A Crust (B11) htic Invertebr ogen Sulfide zed Rhizosp	and 4B) rates (B13 e Odor (Coheres alcoheres	B) (exception)		Secondar Water-S 4A ar Drainage Dry-Seas Saturatio	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (C	ore require (MLRA 1,
ROLOG etland H mary Inc Surfa High Satur Wate Sedin Driff [ly lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2)		Wate MI Salt Aqua Hydr Oxid	LRA 1, 2, 4A Crust (B11) htic Invertebrogen Sulfide zed Rhizospence of Red	and 4B) rates (B13 rates (Cooperes alcoursed Iron	B) (exception) 1) ong Living (C4)	t g Roots (C3)	Secondar Water-S 4A ar Drainage Dry-Seas Saturatio X Geomory	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (C	ore require (MLRA 1,
ROLOG etland H imary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [hes): Indexing Indicators: Indicators (any one indicators (any o		Wate MI Salt Aqua Hydr Oxid	LRA 1, 2, 4A Crust (B11) Itic Invertebr ogen Sulfide zed Rhizosp	and 4B) rates (B13 rates (Cooperes alcoursed Iron	B) (exception) 1) 2) (exception) 1) 2) (exception) 1) 2) (cxiving) 2) (cxiving) 2) (cxiving) 3) (cxiving) 4) (cxiving) 4) (cxiving) 4) (cxiving) 4) (cxiving) 6) (cxiving) 7)	t g Roots (C3)	Secondar Water-S 4A ar Drainage Dry-Seas Saturatic X Geomory Shallow	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (Con Visible on Aerial phic Position (D2)	ore require (MLRA 1,
ROLOG etland H mary Inc Surfa High Satur Wate Sedin Drift I Algal Iron [hes): Ay Aydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		Wate MI Salt e Aqua Hydr Oxid Pres Rece	LRA 1, 2, 4A Crust (B11) htic Invertebrogen Sulfide zed Rhizospence of Red	and 4B) rates (B13 rates (Cooperes alcouced Iron uction in F	3) (excep 3) 1) ong Livin (C4) Plowed S	t g Roots (C3)	Secondar Water-S' 4A ar Drainage Dry-Seas Saturatio X Geomory Shallow X FAC-Net	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (Con Visible on Aerial phic Position (D2) Aquitard (D3)	ore require (MLRA 1,
ROLOG etland H mary Inc Satur Satur Wate Sedin Drift [Algal Iron [Surfa	hes): Indexing Indicators: Indicators (any one indicators (any o	ator is su	Wate MI Salt Aqua Hydr Oxid Pres Rece	LRA 1, 2, 4A Crust (B11) dic Invertebrogen Sulfide zed Rhizospence of Red ent Iron Redu	ates (B13 e Odor (Control of the Control 1) 2) (exception of the control o	t g Roots (C3)	Secondar Water-S 4A ar Drainage Dry-Sear Saturatio X Geomory Shallow X FAC-Net Raised A	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (Con Visible on Aerial phic Position (D2) Aquitard (D3) utral Test (D5)	ore require (MLRA 1, (2) Imagery (C	
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PROLOG Petland H Pimary Inc Satur Wate Sedin Drift [Algal Iron [Surfa Linund Surfa Surfa Wate Sedin Linund Surfa Linund Spars eld Obse	ly (lydrology Indicators: dicators (any one indicators (any one indicators (attention (A3)) attention (A3) r Marks (B1) (B2) (Deposits (B3)) (Deposits (B3)) (Deposits (B5)) (Imagery	Wate Mi Salt Aqua Hydr Oxid Pres Rece Stun Othe e (B8) No X De	Crust (B11) atic Invertebrogen Sulfide zed Rhizospence of Red ent Iron Reduted or Stress r (Explain in	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	t g Roots (C3)	Secondar Water-S 4A ar Drainage Dry-Sear Saturatio X Geomory Shallow X FAC-Net Raised A	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (Con Visible on Aerial phic Position (D2) Aquitard (D3) utral Test (D5)	ore require (MLRA 1, (2) Imagery (C
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pestrictive ype: epth (inch narks: DROLOG letland H rimary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars letd Obse urface W /ater table aturation	ly (lydrology Indicators: dicators (any one indicators (any one indicators (attention (A3)) attention (A3) r Marks (B1) (B2) (Deposits (B3)) (Deposits (B3)) (Deposits (B5)) (Imagery	Wate Mi Salt Aqua Hydr Oxid Pres Rece Stun Othe e (B8) No X De No X De No X De	Crust (B11) atic Invertebrogen Sulfide zed Rhizospence of Red ent Iron Reduted or Stress r (Explain in	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	g Roots (C3) oils (C6) RR A)	Secondar Water-S 4A ar Drainage Dry-Sear Saturatio X Geomory Shallow X FAC-Net Raised A	y Indicators (2 or m tained Leaves (B9) nd 4B) e Patterns (B10) son Water Table (Con Visible on Aerial phic Position (D2) Aquitard (D3) utral Test (D5) Ant Mounds (D6) (L	ore require (MLRA 1, (2) Imagery (C

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty		Sampling [Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling F	Point:	17
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°	·		Long: 122.774606		-	WGS 84
Soil Map Unit Nam	ne: Sauvie silt lo	oam	· 				NWI Classification: I	none	<u> </u>	
Are climatic / hydro	ologic conditions on t	he site typical for th	his time of	year?	Yes 2	x	No((If no, explain	in Remarks	<u> </u>
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal Circumstances			
Are Vegetation	, Soil						eded, explain any ans			
-	FINDINGS - Att								•	
Hydrophytic Veget	ation Present?	YesNo	X	Is the S	ampled Area	<u> </u>				
Hydric Soil Presen	it?	YesNo	X		ampieu Area a Wetland?		Yes	No X		
Wetland Hydrology	y Present?	YesNo	X							
Remarks:										
VEGETATION										
			Absolute	Dominant	Indicator	Domina	nce Test worksheet	::		
Tree Stratum (U:	se scientific names.)		% Cover	Species?	Status?	Number	of Dominant Species	3		
1.	,	•			· ——	That Are	e OBL, FACW, or FA	C :	1	(A)
2.						Total Nu	umber of Dominant			_(· ·/
3.							Across All Strata:		1	(B)
4.						Dercent	of Dominant Species			_(-,
		Total Cover:	0				e OBL, FACW, or FA		100%	_(A/B)
Shrub Stratum						Prevale	nce Index Workshe	et:		
1		<u> </u>				Tot	tal % Cover of:	Mul	tiply by:	_
2.						OBL spe	ecies	ر1 = <u> </u>	0	=
3.						FACW s	species	<2 =	0	_
4						FAC spe	ecies	x3 =	0	_
5.						FACU s	pecies	x4 =	0	_
		Total Cover:	0			UPL spe		x5 =	0	_
Herb Stratum						Column	Totals: 0	(A)	0	_ (B)
1. Alopecurus pra	atensis		95	Υ	FAC	Preval	lence Index = B/A =	#DI\	//0!	_
2. Trifolium reper	ns		15		FAC					
3. Vicia americar	าล		2		FAC	Hydropi	hytic Vegetation Ind	icators:		
4. Anthoxanthum	n odoratum		15		FACU		1 - Rapid Test for H	ydrophytic Ve	egetation	
5. Taraxacum off	ficinale		20		FACU	X	2 - Dominance Test	is >50%		
6. Cirsium arvens	se		5		FAC	#####	3 - Prevalence Inde	x is ≤3.0 ¹		
7. Holcus lanatus	s		5		FAC		4 - Morphological A	daptation1 (P	rovide supp	orting
8.					·		data in Remarks or	on a separat	e sheet)	
9.							5 - Wetland Non-Va	scular PlantS	32	
10.							Problematic Hydrop	hytic Vegetat	tion ¹ (Explair	n)
		Total Cover:	157			İ				
Woody Vine S	<u>tratum</u>						ors of hydric soil and ent, unless disturbed			
•										
		Total Cover								
% Ba	re Ground in Herb St				0			/es	No X	
				Otio Orașt		Tresent	-			
1	are Ground in Herb St	Total Cover: tratum <u>0</u> % (0	Hydropl Vegetat Present	hytic ion	or problemati		

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Ir Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLF 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 (S2) Depleted Dark Surface (F7) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydrice emarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLFA 1, 2, 4A and 4B)	Texture Remarks PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2)
(inches) Color (moist) % Color (moist) % Type¹ Loc² 0-16 10 YR 3/1 100 S 10 YR 3/1 100 S 1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Ir Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLF Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Sandy Muck Mineral (S2) Redox Dark Surface (F6) Sandy Muck Mineral (S2) Depleted Dark Surface (F7) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLF) Water-Stained Leaves (B9) (except MLF) MLRA 1, 2, 4A and 4B)	ains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLF Upepleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Gleyed Matrix (F3) Thick Dark Surface (F6) Sandy Gleyed Matrix (F3) Redox Dark Surface (F6) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A and 4B)	ains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Beyed Matrix (F3) Redox Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) MIRA 1, 2, 4A and 4B)	ndicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Bleyed Matrix (S4) Redox Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) MIRA 1, 2, 4A and 4B)	ndicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLF 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 (S2) Depleted Dark Surface (F7) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLFA 1, 2, 4A and 4B)	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
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Black Histic (A3)	Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present,
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Redox Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Depleted Matrix (F2) Depleted Dark Surface (F7) Redox Depressions (F8) Hydric Hydric Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Depleted Matrix (F3) Redox Dark Surface (F7) Redox Depressions (F8) Hydric Proposition Applies Ap	wetland hydrology must be present,
Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Redox Depressions (F8)	wetland hydrology must be present,
Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Depleted Dark Surface (F7) Redox Depressions (F8) Hydric Hydric Wedox Depressions (F8) Hydric Hydric Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	wetland hydrology must be present,
Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Redox Depressions (F8) Hydric Hydric Wetland Hydrology Indicators: Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	,
Restrictive Layer (if present): Type: Depth (inches): Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) WLRA 1, 2, 4A and 4B) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	unless disturbed or problematic.
Type:	
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Wetlinches): Hydric Hydric Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) WEDNAL (A2) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	
VDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	Soil Present? Yes No X
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B)	
Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B)	
High Water Table (A2) MLRA 1, 2, 4A and 4B)	Secondary Indicators (2 or more required)
	Water-Stained Leaves (B9) (MLRA 1, 2,
	4A and 4B)
Saturation (A3) Salt Crust (B11) Water Marks (P1) Aquatic Invertebrates (P13)	Drainage Patterns (B10)
Water Marks (B1) Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roc	Saturation Visible on Aerial Imagery (C9) ots (C3) Geomorphic Position (D2)
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 (
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water table Present? Yes No X Depth (inches):	
Saturation Present? Yes No _X Depth (inches): \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
ciricudes capiliary ririge) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	etland Hydrology Present? YesNo X
emarks:	

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty		Sampling I	Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling I	Point:	18
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37, T4N, R	1W		
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-2%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°)		Long: 122.774	606°	Datum:	: WGS 84
Soil Map Unit Nam	ne: Sauvie silt lo	oam					NWI Classification	n: none		
Are climatic / hydro	ologic conditions on tl	he site typical for tl	nis time of y	/ear?	Yes 2	X	No	(If no, explair	า in Remarks	3)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumsta	nces" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any	answers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing :	sampling	point loca	ations,	transects, imp	oortant featur	es, etc.	
Hydrophytic Veget	tation Present?	Yes X No								
Hydric Soil Preser			-		ampled Are		Yes X	No		
Wetland Hydrolog		Yes x No		within a	a Wetland?					
Remarks:	y i resent:	100 100								
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test works	heet:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?		of Dominant Spe			
1.						That Ar	e OBL, FACW, or	FAC:	2	(A)
2.						Total No	umber of Domina	nt		_
3.						Species	Across All Strata	i:	2	(B)
4.						Percent	of Dominant Spe	ecies		
		Total Cover:	0				e OBL, FACW, or		100%	_(A/B)
Charle Ctratum						Drevele	maa laalay Mark	ah aati		
Shrub Stratum 1							ence Index Work tal % Cover of:		Itiply by:	
2						OBL sp		x1 =	0	=
3.				-	· 	-	species		0	_
1					· 	FAC sp		x3 =	0	_
					· 		pecies		0	_
·		Total Cover:	0			UPL spe		x5 =	0	_
Herb Stratum						-	Totals: 0	_	0	(B)
Alopecurus pr	atensis		40	Υ	FAC		lence Index = B/A		V/0!	_` ′
Trifolium repel			50	Υ	FAC					_
3. Geranium diss			10		NL	Hydrop	hytic Vegetation	Indicators:		
4. Lysimachia nu	ımmularia		15		FACW		-	or Hydrophytic V	egetation	
Lotus cornicul	'atus		5		FAC	Х	2 - Dominance		-	
6. Geum macrop	phyllum		2		FAC	#####	3 - Prevalence	Index is ≤3.0 ¹		
7. Holcus lanatus	S		2		FAC		4 - Morphologic	al Adaptation1 (F	rovide supp	orting
8. Galium trifidur	n		2		FACW		data in Remark	s or on a separat	te sheet)	-
9. Myosotis laxa			0.01		OBL		5 - Wetland No	n-Vascular Plants	S2	
10.							Problematic Hy	drophytic Vegeta	tion ¹ (Explai	n)
		Total Cover:	126.01							
Woody Vine S	Stratum_					1Indicate	ors of hydric soil a	and wetland hydr	ology must	
1.							ent, unless distur			
2.						Hydrop	hytic			
		Total Cover:	0			Vegeta	•			
% Ba	re Ground in Herb St			otic Crust	0	Presen		Yes X	_ No	
Remarks:						I				

Color (moist) Work Color (moist) Work Type Loc Texture Remarks	Depth	escription: (Describe Matrix		•	Podov Foatu	iroc				•		
10 YR 3/2			0/	Color /			1.002				Domorko	
10 YR 4/1	•					_					Remarks	
10 YR 4/1												
Deleted Below Dark Surface (A12) Sendy Below Care (F7) Service Layer (if present): Search (Indicators: Care) Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service Layer (if present): Service (A3) Service (A3) Service Layer (if present): Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A3) Service (A4) Service	1-9	10 YR 4/1	93			-		SILT LOP	AIVI			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Matrix, CS=Covered Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered	2.40	40.75.474										
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Jodation: PL=Pore Lining, M=Matrix.** **Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) 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 (S2) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. **Redox Depressions (F8) unless disturbed or problematic.** **Restrictive Layer (If present): Type: Upth (inches):	9-16	10 YR 4/1	85					SILT LOP	AIVI			
## Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				10 YR 6/	5	<u>D</u>	IVI					
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) 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 (S2) 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: epth (inches): Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic invertebrates (B13) Drainage Patterns (B10) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Iron Deposits (B6) 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) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Ield Observations: Irater table Present? Yes No X Depth (inches): Idea Check Saturation (Present? Yes No X Depth (inches): Idea Check Saturation (F5) A Depth (inches): Idea Check Saturation (F6) A Depth (inches): Idea Check Saturation (F7) Yes No X Depth (inches): Idea Check Saturation (F7) Yes No X Depth (inches): Idea Check Saturation (F7) Yes No X Depth (inches): Idea Check Saturation (F7) Yes No X Depth (inches): Idea Check Saturation (F6) Yes X No Ye	Type: C=		pletion, RI	M=Reduced	Matrix, CS=Cove	red or Co	ated Sa	nd Grains. ² l	ocation: PL	=Pore Linir	ng, M=Matrix.	
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 (S2) Sendy Muck Mineral (S2) Depleted Dark Surface (F6) Sandy Gleyd Matrix (S4) Sendy Muck Mineral (S2) Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic. Setrictive Layer (if present): ype: epth (inches): Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) Saturation (A3) Surface Water (A1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Dirift Deposits (B2) Dirift Deposits (B2) Dirift Deposits (B3) Agal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Iron Deposits (B6) Surface (B6) Surface (B6) Surface (B6) Surface (B6) Iron Deposits (B6) Surface (B6) Surface (B6) Surface (B6) Iron Deposits (B6) Surface (B6) Surface (B6) Surface (B6) Iron Deposits (B6) Surface (B6) Surface (B6) Surface (B6) Iron Deposits (B6) Surface	ydric Sc	oil Indicators: (Appli	cable to a	ıll LRRs, uı	nless otherwise n	oted.)		Indicator	s for Proble	matic Hyd	Iric Soils ³ :	
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Lopeleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and Sandy Muck Mineral (S2) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Indicators (F7) Wetland Hydrology must be present, Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Indicators (F7) Wetland Hydrology Indicators: Indicators (A11) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (MLRA 1, 2 A4 and 4B) A4 and 4B) Water Table (A2) MLRA 1, 2, A4 and 4B) A4 and 4B) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (X3) Salt Crust (B11) Saturation (X3) Salt Crust (B11) Saturation (X3) Salt Crust (B12) Presence of Reduced Iron (C4) Shallow Aquitard (D3) 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) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Ield Observations: Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches):	Histo	osol (A1)			Sandy Redox (St	5)			2 cm	Muck (A10))	
Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Matrix (F2) Thick Dark Surface (A12) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Depleted Matrix (F3) Sandy Bleyd Matrix (S4) Redox Dark Surface (F6) Sandy Bleyd Matrix (S4) Redox Depressions (F8) Wetland Hydrology must be present, Redox Depressions (F8) BROLOGY Wetland Hydrology Indicators: Wrimary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) MLRA 1, 2, 4A and 4B) Mater Marks (B1) Mater Marks (B1) Mater Marks (B1) Mater Marks (B1) Aquatic Invertebrates (B13) Diff Deposits (B2) Diff Deposits (B3) Diff Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced fron (C4) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Iron Deposits (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Iron Deposits (B5) Recent Iron Reduction in Remarks) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes X No	Histic	c Epipedon (A2)			Stripped Matrix (S	S6)			Red F	Parent Mate	erial (TF2)	
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland Hydrology Indicators: Wetland Hydrology Indicators: Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (mLRA 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Water Marks (B1) Aquatic Invertebrates (B13) Dorit Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water ladded 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? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X No X Depth (inches): Wetland Hydrology Present? Yes X No X Depth (inches):) (excep	t MLRA 1)	Other	(Explain ir	n Remarks)	
Depleted Below Dark Surface (A11)					-			,			,	
Thick Dark Surface (A12)		• , ,	ace (A11)									
Sandy Muck Mineral (S2)			,					³ Ind	icators of hyd	drophytic v	egetation and	
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Page							7)		=		-	
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Sediment Deposits (B2)	DROLOG Vetland H	GY Hydrology Indicators Idicators (any one indi ace Water (A1)		ifficient))) (exce		Second Wate	dary Indica r-Stained L	tors (2 or mor	e required
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Algal Mat or Crust (B4)	DROLOG Wetland H Surfa High Satu	Hydrology Indicators Idicators (any one indicate Water (A1) Water Table (A2) Iration (A3)		ifficient)	MLRA 1, 2, 4A Salt Crust (B11)	and 4B)	excep		Second Wate 44	dary Indica r-Stained L A and 4B) age Patterr	tors (2 or mor eaves (B9) (N ns (B10)	e required
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Inundation Visible on Aerial Imagery (B7)	DROLOG Vetland H Primary In Surfa High Satu Wate Sedii Drift	Hydrology Indicators adicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		ifficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	and 4B) ates (B13 Odor (Coheres ald	(exception)))))))))))))))))))))))))))))	pt	Second Wate 4A Drain Dry-S Satur X Geom	dary Indica r-Stained L A and 4B) age Pattern Season War ation Visibl norphic Pos	tors (2 or mor eaves (B9) (In ns (B10) ter Table (C2) le on Aerial In sition (D2)	e required
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Project/Site:	Plas Newydd Farr	n		City/County	: Clark Cou	nty			Samp	ling Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farr	n					State:	WA	Samp	ling Point:	19
Investigator(s):	B. Haddaway, T.S	itout		Sectio	n, Township	, Range:	DLC37	, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope (%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967	0		Long:	122.774606	S°	Datu	m: WGS 84
Soil Map Unit Nam		· · · · · · · · · · · · · · · · · · ·						ssification:	none		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		(If no, ex	plain in Remar	ks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstance	es" Prese	nt? Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	swers in l	Remarks.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, t	ransec	cts, impoi	tant fea	atures, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen)		ampled Are		Yes	Χ	No		
Wetland Hydrolog)	within	a Wetland?		•		-	_	
Remarks:											
VEGETATION											
Trac Stratum (III	aa aajantifia namaa	`	Absolute % Cover	Dominant Species?	Indicator Status?			st workshee			
1. Fraxinus latifo	se scientific names. <i>lia</i>)	30	Y	FACW			ACW, or FA		1	(A)
Populus balsa		,	15		FAC	Total No	ımher of	Dominant			(^)
3.	micra							All Strata:		4	(B)
4					·			nant Specie			
		Total Cover:	45			That Are	OBL, F	ACW, or FA	AC:	100%	(A/B)
Shrub Stratum 1.							nce Indo	ex Workshe	eet:	Multiply by:	
2.								VC1 O1.	x1 =	0	
3.		,		-	-						
4.						FAC spe				0	
5.						FACU s				0	_
		Total Cover:	0			UPL spe			x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Alopecurus pr	atensis		40	Υ	FAC	Preva	ence Ind	dex = B/A =		#DIV/0!	
2. Phalaris arund	dinacea		50	Υ	FACW						
3						Hydrop	hytic Ve	getation In	dicators:		
4										tic Vegetation	
						X		ninance Tes			
						####		valence Inde			
					·				•	n1 (Provide su	oporting
										parate sheet)	
4.0								tland Non-V			-1-1
					·		Probler	пацс нуцго	pnytic ve	getation ¹ (Expl	ain)
11		Total Cover:	90								
Woody Vine S	tratum	Total Cover.	90			1Indicate	ro of hy	dria aail and	wetlend	hydrology muo	.
1.	<u>uratum</u>							unc son and ss disturbed		hydrology mus ematic.	L
2.									- F. 551	- -	
		Total Cover:	0	-	-	Hydrop Vegetat					
% Ba	re Ground in Herb S			otic Crust	0	Present			Yes X	No	
Remarks:						1			<u></u>		

7 a m4b	Matrix			Dodov Foot							
Depth	Matrix	0/	0-1/-	Redox Featu		12				Damada	
inches)	Color (moist)		Color (n	noist) %	Type ¹	Loc ²	Textu			Remarks	
)-4	10 YR 3/2	100	40 VD 4/0				SILT LOA				
1-8	10 YR 3/2	83	10 YR 4/6		<u>C</u>	PL	SILTY CL	AY L			
1.40	40 VD 4/2		10 YR 4/3		<u>C</u>	M	CII TV CI	A V I			
3-16	10 YR 4/2	92	7.5 YR 4/6		<u>C</u>	PL	SILTY CL	AY L			
			10 YR 5/6	3	<u>C</u>	M					
ype: C	=Concentration, D=Dep	pletion, RI	M=Reduced	Matrix, CS=Cove	red or Coa	ated Sar	nd Grains. ² l	ocation: PL	_=Pore Linir	ng, M=Matrix.	
ydric S	oil Indicators: (Applic	cable to a	II LRRs, un	less otherwise n	oted.)		Indicator	s for Proble	ematic Hyd	Iric Soils³:	
	osol (A1)			Sandy Redox (S	5)				Muck (A10		
Histi	ic Epipedon (A2)			Stripped Matrix (S				Red I	Parent Mate	erial (TF2)	
Blac	ck Histic (A3)			Loamy Mucky Mi	, ,	•	t MLRA 1)	Other	r (Explain ir	n Remarks)	
Hyd	rogen Sulfide (A4)			Loamy Gleyed M	atrix (F2)						
Dep	leted Below Dark Surfa	ace (A11)		Depleted Matrix ((F3)						
Thic	ck Dark Surface (A12)			Redox Dark Surfa	ace (F6)		³ Ind	icators of hy	drophytic v	egetation and	
San	dy Muck Mineral (S2)			Depleted Dark St	urface (F7)	W	etland hydro	ology must l	oe present,	
San	dy gleyed Matrix (S4)			Redox Depression	ns (F8)			unless distu	rbed or pro	blematic.	
estrictiv	ve Layer (if present):										
/ne:											
epth (ind	ches):					Н	lydric Soil Pi	resent?	Y	es X	No
epth (ind						Н	lydric Soil Pi	resent?	Y	es X	No
DROLO		:				H	lydric Soil Pi	resent?	Y	es X	No
DROLO	GY		fficient)			H	lydric Soil Pr			es X tors (2 or mor	
epth (ind narks: DROLO /etland rimary Ir	GY Hydrology Indicators		fficient)	Water-Stained Le	eaves (B9)			Secon	dary Indica		e required
epth (independent of the period of the perio	GY Hydrology Indicators ndicators (any one indic		fficient)	Water-Stained Le				Secon Wate	dary Indica	tors (2 or mor	e requirec
PROLOGICATION OF THE PROPERTY	GY Hydrology Indicators ndicators (any one indicator (A1)		fficient)					Secon Wate	dary Indica er-Stained L	tors (2 or mor eaves (B9) (N	e requirec
epth (inc narks: DROLO /etland rimary Ir Surf High Satu	GY Hydrology Indicators indicators (any one indicators (A1) in Water Table (A2)		fficient)	MLRA 1, 2, 4A	and 4B)) (excep		Secon Wate 44 Drain	dary Indica er-Stained L A and 4B) nage Patteri	tors (2 or mor eaves (B9) (N	e required
DROLOG /etland rimary Ir Surf High Satu Wat	GY Hydrology Indicators ndicators (any one indicators (A1) n Water Table (A2) uration (A3)		fficient)	MLRA 1, 2, 4A Salt Crust (B11)	and 4B)) (excep		Secon Wate 4/ Drain Dry-S	dary Indica er-Stained L A and 4B) nage Patten Season Wa	tors (2 or mor eaves (B9) (N ns (B10)	e required
DROLO /etland rimary lr Surf High Satu Wat Sed	GY Hydrology Indicators ndicators (any one indicator (A1) n Water Table (A2) uration (A3) ter Marks (B1)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr	and 4B) rates (B13) Property Odor (C1)) (excep	ot	Secon Wate 44 Drain Dry-S Satur	dary Indica er-Stained L A and 4B) nage Patten Season Wa	tors (2 or mor eaves (B9) (N ns (B10) ter Table (C2) le on Aerial In	e required
PROLOGICATION OF THE PROPERTY	GY Hydrology Indicators Indicators (any one indicators (A1) In Water Table (A2) Iuration (A3) Iver Marks (B1) Iiment Deposits (B2)		_	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	and 4B) rates (B13 e Odor (C1 oheres alo) (excep)) l) ng Livin	ot	Secon Wate 44 Drain Dry-S Satur X Geon	dary Indica er-Stained L A and 4B) nage Patten Season Wa ration Visibl	tors (2 or mor eaves (B9) (In ns (B10) ter Table (C2) le on Aerial In sition (D2)	e required
PROLOGICAL SERVICE SER	GY Hydrology Indicators ndicators (any one indicators (A1) n Water Table (A2) uration (A3) ter Marks (B1) iment Deposits (B2) it Deposits (B3) al Mat or Crust (B4)		_	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	and 4B) rates (B13 rates (C1 cheres alo uced Iron) (excep)) ng Livin (C4)	ot g Roots (C3)	Secon Wate 44 Drain Dry-S Satur X Geon	dary Indica er-Stained L A and 4B) nage Patter Season War ration Visibl morphic Pos ow Aquitaro	tors (2 or mor eaves (B9) (Notes (B10)) ter Table (C2) de on Aerial Implication (D2) dd (D3)	e required
DROLOGIVETION SATURED	GY Hydrology Indicators Indicators (any one indicators (any one indicators (any one indicators) In Water Table (A2) In Water Table (A2) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B5)		_	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	ates (B13 Odor (C1 Oheres alo uced Iron uction in P) (excep)) ng Livin (C4) lowed S	g Roots (C3)	Secon Wate 44 Drain Dry-S Satur X Geon Shall X FAC-	dary Indica er-Stained L A and 4B) nage Patten Geason War ration Visibl morphic Pos ow Aquitaro	tors (2 or more leaves (B9) (Normal leaves (B10)) ter Table (C2) de on Aerial Instition (D2) dd (D3) st (D5)	e required MLRA 1, 2
DROLO /etland rimary lr Surf High Satu Vat Sed Drift Alga Iron Surf	GY Hydrology Indicators indicators (any one indicators (any one indicators (A1) in Water Table (A2) uration (A3) ier Marks (B1) iment Deposits (B2) it Deposits (B3) al Mat or Crust (B4) Deposits (B5) face Soil Cracks (B6)	cator is su		MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise	dary Indica er-Stained L A and 4B) nage Pattern Season War ration Visible morphic Pos ow Aquitaro Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (In the standard of the standard of the le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LRI	ne required ILRA 1, 2 nagery (CS
PROLOGIVE SATURE	GY Hydrology Indicators Indicators (any one indicators (any one indicators (any one indicators) In Water Table (A2) In Water Table (A2) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B4) In Water Table (B5)	cator is su	X ————————————————————————————————————	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise	dary Indica er-Stained L A and 4B) nage Pattern Season War ration Visible morphic Pos ow Aquitaro Neutral Tesed Ant Mou	tors (2 or more leaves (B9) (Normal leaves (B10)) ter Table (C2) de on Aerial Instition (D2) dd (D3) st (D5)	re required MLRA 1, 2) nagery (CS
DROLOGIVETION SAIL SEED STAIL SEED STAIL SEED STAIL SEED STAIL SEED SEED SEED SEED SEED SEED SEED SEE	Hydrology Indicators indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator) in Water Table (A2) uration (A3) irrer Marks (B1) iment Deposits (B2) it Deposits (B3) it Deposits (B3) it Mat or Crust (B4) Deposits (B5) if ace Soil Cracks (B6) indation Visible on Aeria	cator is su	X ————————————————————————————————————	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise	dary Indica er-Stained L A and 4B) nage Pattern Season War ration Visible morphic Pos ow Aquitaro Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (In the standard of the standard of the le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LRI	ne required ILRA 1, 2 nagery (CS
DROLOGIVETION SATURE SENTING SATURE SENTING SE	GY Hydrology Indicators Indicators (any one i	cator is su I Imagery ve Surfac	X ————————————————————————————————————	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	and 4B) rates (B13 rates (B13 rates (C1 rates alo rates alo rated Iron rated Iron rated Plants Remarks)) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3)	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise	dary Indica er-Stained L A and 4B) nage Pattern Season War ration Visible morphic Pos ow Aquitaro Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (In the standard of the standard of the le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LRI	ne required ILRA 1, 2 nagery (CS
Primary Ir Surf High Satu Wat Sed Drift Alga Iron Surf Inun Spa Gurface V Vater tab	GY Hydrology Indicators Indicators (any one i	I Imagery ve Surfac	(B7) e (B8) No X No X	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	and 4B) rates (B13 rates (B13 rates alo rates alo rated Iron ration in P rated Plants Remarks)) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A)	Secon Wate 44 Drain Dry-S Satur X Geon Shall X FAC- Raise Frost	dary Indica er-Stained L A and 4B) nage Patter Season Waration Visibl morphic Pos ow Aquitare Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (Notes the Table (C2) de on Aerial Instition (D2) d (D3) st (D5) nds (D6) (LRI mmocks (D7)	re required MLRA 1, 2) nagery (C9
DROLOGIVETION SATURN SENTING SATURN SENTING SE	GY Hydrology Indicators Indicators (any one i	I Imagery ve Surfac	(B7) e (B8)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	and 4B) rates (B13 rates (B13 rates alo rates alo rated Iron ration in P rated Plants Remarks)) (excep))) ng Livin (C4) llowed S (D1) (L	g Roots (C3) Soils (C6) RR A)	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise	dary Indica er-Stained L A and 4B) nage Patter Season Waration Visibl morphic Pos ow Aquitare Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (In the standard of the standard of the le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LRI	ne required MLRA 1, 2 nagery (CS
PROLOGIVE Saturface Valuration ncludes	GY Hydrology Indicators Indicators (any one i	I Imagery ve Surfac s s .	(B7) e (B8) No X No X No X	MLRA 1, 2, 44 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)	and 4B) rates (B13 rates (B13 rates alo rates alo rated Iron ration in P rated Plants Remarks)) (excep) ng Livin (C4) lowed S (D1) (L	g Roots (C3) Soils (C6) RR A) Wetland F	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise Frost	dary Indica er-Stained L A and 4B) nage Patter Season Waration Visibl morphic Pos ow Aquitare Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (Notes the Table (C2) de on Aerial Instition (D2) d (D3) st (D5) nds (D6) (LRI mmocks (D7)	re required MLRA 1, 2) nagery (CS
DROLOGIVETION SUFFICION SU	GY Hydrology Indicators Indicators (any one i	I Imagery ve Surfac s s .	(B7) e (B8) No X No X No X	MLRA 1, 2, 44 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)	and 4B) rates (B13 rates (B13 rates alo rates alo rated Iron ration in P rated Plants Remarks)) (excep) ng Livin (C4) lowed S (D1) (L	g Roots (C3) Soils (C6) RR A) Wetland F	Secon Wate 4/ Drain Dry-S Satur X Geon Shall X FAC- Raise Frost	dary Indica er-Stained L A and 4B) nage Patter Season Waration Visibl morphic Pos ow Aquitare Neutral Tesed Ant Mou	tors (2 or mor eaves (B9) (Notes the Table (C2) de on Aerial Instition (D2) d (D3) st (D5) nds (D6) (LRI mmocks (D7)	e required MLRA 1, 2) nagery (C:

	Section	Township	State: WA	Sampling Po	oint: 2
	Section	Township	Danger DI COZ TANI DAM		
		i, rownsiip,	Range: DLC37, T4N, R1W		
	Local re	lief (concave	e, convex, none): none		Slope (%): 0-1%
Lat:	45.850967°		Long: 122.774606	0	Datum: WGS 84
			NWI Classification:	none	
time of y	/ear?	Yes X	(No	(If no, explain i	in Remarks)
	significantly	disturbed?	Are "Normal Circumstance	s" Present?	Yes X No
owing :	sampling	point loca	tions, transects, impor	tant feature	es, etc.
			Yes	No X	
	Within a	a welland?			
	have formed	nrior to dam	construction, assumed due t	o its location a	t the confluence of
bute to di	amane nucli	Jauons III wa	ter level seasonally and annu	ally, However,	the plot does not
	Dominant Species?	Indicator Status?			
40	Y	FACW	That Are OBL, FACW, or FA	C:	2 (A)
		FAC	Total Number of Dominant		(,
			Species Across All Strata:		5 (B)
			Percent of Dominant Species		
80			•		.0% (A/B)
		FACU	Total % Cover of:	Multi	iply by:
5	<u>Y</u>	FACU	· —		0
			· —		0
			· ——		0
15					0
					0 (B)
20		UPL	Prevalence Index = B/A =	#DIV/	/0!
60	Υ	FACU	- -		
5		FACW	Hydrophytic Vegetation Inc	licators:	
15		FACU	1 - Rapid Test for H	ydrophytic Ve	getation
5		OBL	2 - Dominance Tes	is >50%	
			##### 3 - Prevalence Inde	x is ≤3.0 ¹	
			4 - Morphological A	daptation1 (Pr	ovide supporting
			data in Remarks or	on a separate	sheet)
			5 - Wetland Non-Va	scular PlantS	2
			Problematic Hydrop	hytic Vegetation	on ¹ (Explain)
105					
				or problematic	<u>, </u>
			Hydrophytic		
	otic Crust	0		٧۵c	No X
werul Di	บแบ บานจีเ	U	1 1636111:	Yes	140 A
	bsolute bute to do but	bsolute Dominant Species? 40 Y 40 Y 15 Y 15 S 10 Y 15 S 10	stime of year? significantly disturbed? naturally problematic? ls the Sampled Area within a Wetland? sich may have formed prior to dambute to dramatic fluctuations in was bute to dramatic fluctuations in was series. 40 Y FACU 40 Y FACU 5 Y FACU 5 Y FACU 5 FACU 5 FACU 5 FACU 60 Y FACU 5 FACU 5 FACU 60 Y FACU 5 FACU 60 Y FACU	NWI Classification: stime of year? Yes X	Lat: 45.850967° Long: 122.774606° NVII Classification: none significantly disturbed? Are "Normal Circumstances" Present? (If no, explain is significantly disturbed? (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance) (If needed, explain any answers in Remainstance in Remainstance) (If needed, explain any answers in Remainstance in Remainstance) (If needed, explain any answers in Remainstance in Remainstance in Remainstance) (If needed, explain any answers in Remainstance in Remainstance in Remainstance) (If needed, explain any answers in Remainstance in Remainstance) (If needed, explain any answers in Remainstance in

Depth	_									f indicators.)		
	Matrix				dox Featu		2	_				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Tex			Remarks	
)-6	10 YR 3/2	100						SILT LO				
5-16	10 YR 4/2	90	10 YR 4/6		5	<u>C</u>	М	SILT LO	MAC			
			10 YR 4/3	3	5	<u>C</u>	М					
									2			
Type: C=	Concentration, D=Dep	letion, RI	M=Reduced	d Matrix,	CS=Cove	red or Coa	ated San	d Grains.	Location	: PL=Pore Lir	ning, M=Matrix	•
vdric Soi	il Indicators: (Applic	able to a	II LRRs. u	nless otl	nerwise n	oted.)		Indicat	ors for Pr	oblematic Hy	dric Soils ³ :	
	sol (A1)		,		Redox (S5	-				cm Muck (A1		
	Epipedon (A2)				d Matrix (S					Red Parent Ma	•	
	Histic (A3)				Mucky Mi	,	(excent	MIRA 1)		Other (Explain		
	ogen Sulfide (A4)				Gleyed Ma		(схосрі	IIILIX I)	_ `	outer (Explain	iii itomarko)	
	eted Below Dark Surfa	ce (A11)	_		ed Matrix (
	Dark Surface (A12)	CC (ATT)			Dark Surfa			31,	ndicators c	of hydrophytic	vegetation and	1
	y Muck Mineral (S2)						`	ļi.			=	,
	• • • • • • • • • • • • • • • • • • • •				ed Dark Su)			ydrology musi		
	y gleyed Matrix (S4)			Redox	Depressio	ns (F8)			uniess	disturbed or pr	robiematic.	
estrictive	E Layer (if present):											
Depth (inch	nes):		<u> </u>				н	ydric Soil	Present?	,	Yes <u>X</u>	No
Depth (inch marks:							н	ydric Soil	Present?	,	Yes <u>X</u>	No
Depth (inch marks: DROLOG			<u> </u>				н	ydric Soil	Present?	,	Yes <u>X</u>	No
Depth (inch marks: DROLOG Vetland H	Y		fficient)				н	ydric Soil			Yes X	
Depth (inch marks: DROLOG Vetland H	Y lydrology Indicators:		fficient)	Water-	Stained Le	eaves (B9			<u>Se</u>	econdary Indic	cators (2 or mo	re required
DROLOG Vetland H Primary Inc	Y lydrology Indicators: dicators (any one indic ce Water (A1)		fficient)			` '			<u>Se</u>	econdary Indic Vater-Stained	cators (2 or mo Leaves (B9) (re required
DROLOG Vetland H Primary Inc Surfa High	Y lydrology Indicators: dicators (any one indic ce Water (A1) Water Table (A2)		fficient)	MLR	A 1, 2, 4A	` '			SeV	econdary Indic Vater-Stained 4A and 4B)	cators (2 or mo Leaves (B9) (l	re required
DROLOG Vetland H Surfa High Satur	Y Indicators: Sidicators (any one indicators (A1) Water Table (A2) Ation (A3)		fficient)	MLR Salt Cri	A 1, 2, 4A ust (B11)	and 4B)) (excep		SeV	econdary Indio Vater-Stained 4A and 4B) Prainage Patte	cators (2 or mo Leaves (B9) (I	re required
DROLOG Vetland H Primary Inc Surfa High Satur Wate	y lydrology Indicators: dicators (any one indic ce Water (A1) Water Table (A2) ation (A3) r Marks (B1)		fficient)	MLR Salt Cro Aquatio	A 1, 2, 4A ust (B11) c Invertebr	and 4B)) (excep		SeV	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	cators (2 or mo Leaves (B9) (I erns (B10) dater Table (C2	re required
DROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin	Y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2)		fficient)	MLR Salt Cro Aquation Hydrog	A 1, 2, 4A ust (B11) Invertebra	and 4B) ates (B13 Odor (C1) (excep	t	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi	cators (2 or mo Leaves (B9) (l) erns (B10) later Table (C2 ble on Aerial Ir	re required
Depth (inch marks: DROLOG Wetland H Primary Inc Surfa High V Satur Wate Sedin Drift [y lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)		fficient)	MLR Salt Cre Aquatic Hydrog Oxidize	A 1, 2, 4A ust (B11) Invertebra en Sulfide	and 4B) ates (B13 Odor (C1 heres alo) (excep))) ng Living			econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po	cators (2 or mo Leaves (B9) (I erns (B10) dater Table (C2 ble on Aerial Ir osition (D2)	re required
Depth (inch marks: DROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal	y ydrology Indicators: dicators (any one indicators (Al) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		fficient)	MLR Salt Cru Aquation Hydrog Oxidize Presen	A 1, 2, 4A ust (B11) c Invertebra en Sulfide ed Rhizosp ce of Redi	ates (B13 Odor (C1 heres alo) (excep))) ng Living (C4)	t g Roots (C	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita	cators (2 or mo Leaves (B9) (I) erns (B10) rater Table (C2 ble on Aerial In osition (D2) ard (D3)	re required
Depth (inch marks: DROLOG Vetland H Primary Inc Surfa High V Satur Wate Sedin Drift [Algal Iron [y dydrology 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)		fficient)	MLR Salt Cru Aquation Hydrog Oxidized Present Recent	A 1, 2, 4A ust (B11) Invertebre en Sulfide ed Rhizosp ce of Redi	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P))) ng Living (C4) lowed S	t t Quantity (C.C.)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial In osition (D2) ard (D3) fest (D5)	re required MLRA 1, 2
Depth (inch marks: DROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift I Algal Iron I Surfa	y lydrology 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) ce Soil Cracks (B6)	ator is su		MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted	A 1, 2, 4A ust (B11) c Invertebre en Sulfide d Rhizosp ce of Redu Iron Redu d or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants) (excep)) ng Living (C4) lowed S (D1) (LI	t t Quantity (C.C.)	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) magery (Carrent R A)
Depth (inch marks: DROLOG Wetland H Primary Inc Surfa High V Satur Vate Sedin Drift I Algal Iron I Surfa Inund	y lydrology 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) ce Soil Cracks (B6) lation Visible on Aerial	ator is su		MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted	A 1, 2, 4A ust (B11) Invertebre en Sulfide ed Rhizosp ce of Redi	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants) (excep)) ng Living (C4) lowed S (D1) (LI	t t Quantity (C.C.)	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial In osition (D2) ard (D3) fest (D5)	re required MLRA 1, 2) magery (CS
Primary Inc. Surfa High V Satur Vate Sedin Drift [Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Inund Spars	y lydrology 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) ce Soil Cracks (B6) ation Visible on Aerial sely Vegetated Concav	ator is su		MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted	A 1, 2, 4A ust (B11) c Invertebre en Sulfide d Rhizosp ce of Redu Iron Redu d or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants) (excep)) ng Living (C4) lowed S (D1) (LI	t t Quantity (C.C.)	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) magery (CS
Primary Inc. Surfa High V Satur Wate Sedin Drift [Algal Iron [Surfa Algal Iron [Surfa Inund Spars	y ydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aerial sely Vegetated Concaveryations:	Imagery ve Surfac	(B7)	MLR Salt Cri Aquatio Hydrog Oxidize Presen Recent Stunted Other (A 1, 2, 4A ust (B11) Invertebraten Sulfide d Rhizosp ce of Redu Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks)) (excep)) ng Living (C4) lowed S (D1) (LI	t t Quantity (C.C.)	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) magery (CS
Primary Inc. Surfa High V Satur Wate Sedin Drift [Algal Iron [Surfa	y ydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aerial sely Vegetated Concaveryations: ater Present?	Imagery ve Surfac	(B7) e (B8)	MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted Other (A 1, 2, 4A ust (B11) Invertebra en Sulfide ed Rhizosp ce of Redu Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks)) (excep)) ng Living (C4) lowed S (D1) (LI	t t Quantity (C.C.)	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) magery (CS
Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars	y ydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aerial cely Vegetated Concater cervations: ater Present? Yes e Present?	Imagery	(B7)	MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted Other (A 1, 2, 4A ust (B11) Invertebra en Sulfide ed Rhizosp ce of Redu Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (excep)) ng Living (C4) lowed S (D1) (LI	t Roots (C3		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mo Leaves (B9) (I erns (B10) fater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) magery (CS
Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Inund Spars Surface Water table Saturation	y ydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aerial cely Vegetated Concater cervations: ater Present? Yes e Present?	Imagery	(B7) e (B8) NoX NoX	MLR Salt Cri Aquatic Hydrog Oxidize Presen Recent Stunted Other (A 1, 2, 4A ust (B11) Invertebra en Sulfide ed Rhizosp ce of Redu Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (excep)) ng Living (C4) lowed S (D1) (LI	t Roots (C3		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (i) erns (B10) ater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) eunds (D6) (LR	re required MLRA 1, 2 nagery (CS
Primary Inc. Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Algal Iron [Surfa Inund Spars Surface Wi Water table Saturation (includes c	y ydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aerial sely Vegetated Concaveryations: ater Present? Present? Yes Present?	Imagery ve Surfac	(B7) e (B8) No No No	MLR Salt Cri Aquatio Hydrog Oxidize Presen Recent Stunted Other (A 1, 2, 4A ust (B11) c Invertebra en Sulfide ed Rhizosp ce of Reda Iron Reda d or Stress Explain in h (inches) h (inches)	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks)) (excep)) ng Livin (C4) lowed S (D1) (LI	t Roots (C3	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mo Leaves (B9) (i) erns (B10) ater Table (C2 ble on Aerial Ir osition (D2) ard (D3) est (D5) eunds (D6) (LR	re required MLRA 1, 2 nagery (C

Project/Site: Plas Newydd Farm		City/County:	Clark Cour	nty Sampling Date: 5/1/20
Applicant/Owner: Plas Newydd Farm				State: WA Sampling Point:
nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: DLC37, T4N, R1W
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concav	re, convex, none): <u>none</u> Slope (%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR A	<u>)</u> Lat:	45.850967°)	Long: <u>122.774606°</u> Datum: <u>WGS 8</u>
oil Map Unit Name: Sauvie silt loam				NWI Classification: none
re climatic / hydrologic conditions on the site typical for t	this time of	year?	Yes 2	X No (If no, explain in Remarks)
				Are "Normal Circumstances" Present? Yes X No
re Vegetation, Soil, or Hydrology		naturally pr	oblematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, transects, important features, etc.
lydrophytic Vegetation Present? Yes No	ΣX			
Hydric Soil Present? Yes X No			ampled Are a Wetland?	
<u> </u>	X	WILLIIII	a vvetianu:	
Remarks: Hydric soils underlie much of the site, some of	which may	have formed	I prior to dan	m construction, assumed due to its location at the confluence of
EGETATION	Absolute	Dominant Consider	Indicator	Dominance Test worksheet:
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Species
Fraxinus latifolia		Υ	FACW	That Are OBL, FACW, or FAC: 2 (A)
Populus balsamifera	65	Υ	FAC	Total Number of Dominant
·				Species Across All Strata: 5 (B)
. <u> </u>				Percent of Dominant Species
Total Cover	85			That Are OBL, FACW, or FAC: 40% (A/B)
Shrub Stratum				Prevalence Index Worksheet:
Shrub Stratum . Symphoricarpos albus	30	Υ	FACU	Total % Cover of: Multiply by:
Rubus armeniacus	5		FACU	OBL species x1 = 0
Oemleria cerasiformis	5		FACU	FACW species x2 = 0
. Commona deradirentino			· ———	FAC species x3 = 0
·				FACU species x4 = 0
Total Cover	40			UPL species x5 = 0
lerb Stratum				Column Totals: 0 (A) 0 (B)
. Arctium lappa	5		UPL	Prevalence Index = B/A = #DIV/0!
. Osmorhiza berteroi	20	Υ	FACU	
. Galium aparine	25	Υ	FACU	Hydrophytic Vegetation Indicators:
. Phalaris arundinacea	5		FACW	1 - Rapid Test for Hydrophytic Vegetation
. Rumex crispus	5		FAC	2 - Dominance Test is >50%
	_		FACW	##### 3 - Prevalence Index is ≤3.0 ¹
Viola glabella	5			
	5		FACU	4 - Morphological Adaptation1 (Provide supporting
Prunella vulgaris Lysimachia nummularia	5 15		FACW	data in Remarks or on a separate sheet)
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis	5 15 5		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis 0.	5 15 5		FACW FAC	data in Remarks or on a separate sheet)
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis 0. 1.	5 15 5		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis 1. Total Cover	5 15 5		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation ¹ (Explain)
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis 1. Total Covers	5 15 5		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis Total Covers Woody Vine Stratum	5 15 5		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis Total Covery Woody Vine Stratum	5 15 5 90		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic
Prunella vulgaris Lysimachia nummularia Alopecurus pratensis 1	5 15 5 90		FACW FAC	data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Depth (inches) 0-9	Matrix		•				OF CO	mm the	ausence 0	f indicators.)		
	IVIALIA			Redo	ox Featu			_				
n-9	Color (moist)	<u>%</u>	Color (r	noist)	%	Type ¹	Loc ²	Tex	ture		Remarks	
	10 YR 3/2	100						SILT L	OAM			
9-16	10 YR 4/2	90	7.5 YR 3/-		5	С	М	SILT L	OAM			
			10 YR 5/2	<u> </u>	5	<u>D</u>	M					
Гуре: С=0	Concentration, D=Dep	oletion, RI	M=Reduced	I Matrix, C	S=Cover	red or Coa	ated Sar	nd Grains.	² Location	: PL=Pore Linir	ng, M=Matrix.	
lvdric Soi	I Indicators: (Applic	able to a	II LRRs. ur	nless othe	rwise n	oted.)		Indicat	tors for Pr	oblematic Hyd	Iric Soils ³ :	
-	sol (A1)		,	Sandy Re		-				cm Muck (A10		
	Epipedon (A2)			Stripped						Red Parent Mat	•	
	Histic (A3)						(except	: MLRA 1)		Other (Explain in		
	gen Sulfide (A4)			Loamy G	•		(******	,		(=:-	,	
	ted Below Dark Surfa	ce (A11)		Depleted								
	Dark Surface (A12)	(* (*)		Redox Da				³ I	ndicators o	of hydrophytic v	egetation and	
	/ Muck Mineral (S2)					urface (F7)	•		ydrology must l	=	
	gleyed Matrix (S4)			Redox De			,			disturbed or pro		
	Layer (if present):					()			u			
	Layor (ii proconty.											
「ype: Depth (inch	10c).						ا ا	ydric Soil	Drosont?	v	es X	No
Wetland H	ydrology Indicators:											
Netland H Primary Inc	ydrology Indicators: licators (any one indic		fficient)							econdary Indica		
Vetland H Primary Inc Surfa	ydrology Indicators: licators (any one indic ce Water (A1)		fficient)			eaves (B9) (excep	ıt		Vater-Stained L		
Vetland H Primary Inc Surfac High V	ydrology Indicators: licators (any one indic ce Water (A1) Water Table (A2)		fficient)	MLRA	1, 2, 4A	eaves (B9 and 4B)) (excep	ut		Vater-Stained L 4A and 4B)	eaves (B9) (N	
Vetland H Primary Inc Surfac High \ Satura	ydrology Indicators: licators (any one indic ce Water (A1) Water Table (A2) ation (A3)		fficient)	MLRA Salt Crus	1, 2, 4A st (B11)	and 4B)	•	ıt.		Vater-Stained L 4A and 4B) Orainage Patter	eaves (B9) (N	/ILRA 1, 2
Vetland H Primary Inc Surfac High \ Satura Water	ydrology Indicators: licators (any one indic ce Water (A1) Nater Table (A2) ation (A3)		fficient)	MLRA Salt Crus Aquatic II	. 1, 2, 4A st (B11) nvertebra	and 4B))	ıt	V	Water-Stained L 4A and 4B) Drainage Patter Dry-Season Wa	ns (B10) ter Table (C2)	/ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedim	ydrology Indicators: licators (any one indic ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2)		fficient)	MLRA Salt Crus Aquatic II Hydroger	1, 2, 4A st (B11) nvertebra n Sulfide	and 4B) ates (B13 Odor (C1)		V	Water-Stained L 4A and 4B) Drainage Patter Dry-Season Wa Saturation Visible	eaves (B9) (N ns (B10) ter Table (C2) le on Aerial Im	/ILRA 1, 2
Wetland H Primary Inc Surfar High \ Satura Water Sedin	ydrology Indicators: licators (any one indicators (A1) Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3)		fficient)	MLRA Salt Crus Aquatic In Hydroger Oxidized	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp	and 4B) ates (B13 Odor (C1 heres alo)) ng Livin	t g Roots (C	3) 0	Vater-Stained L 4A and 4B) Drainage Patter Dry-Season Wa Saturation Visible Geomorphic Pos	ns (B10) ter Table (C2) le on Aerial Im sition (D2)	/ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E	ydrology Indicators: licators (any one indicators (A1) Water Table (A2) lation (A3) Marks (B1) lenent Deposits (B2) Deposits (B3) Mat or Crust (B4)		fficient)	MLRA Salt Crus Aquatic In Hydroger Oxidized Presence	at, 2, 4A at (B11) nvertebra a Sulfide Rhizosp e of Redu	ates (B13 Odor (C1 heres alo)) ng Livin (C4)	g Roots (C	V	Vater-Stained L 4A and 4B) Drainage Patter Dry-Season Wa Saturation Visibl Geomorphic Pos Shallow Aquitare	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3)	/ILRA 1, 2
Wetland H Primary Inc Surfac High \ Satura Water Sedin Drift E Algal Iron D	ydrology Indicators: licators (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)		fficient)	MLRA Salt Crus Aquatic In Hydroger Oxidized Presence Recent In	at, 2, 4A at (B11) nvertebra n Sulfide Rhizosp e of Redu	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P)) ng Living (C4) lowed S	g Roots (C oils (C6)	V [] []]]	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visibl Geomorphic Pos Shallow Aquitare FAC-Neutral Tes	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5)	ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron E Surfac	ydrology Indicators: licators (any one indicators (any one indicators (A1) Water Table (A2) lation (A3) Marks (B1) lenent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6)	ator is su		MLRA Salt Crus Aquatic In Hydroger Oxidized Presence Recent In Stunted of	at, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6)	- V	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visible Geomorphic Pos Shallow Aquitare FAC-Neutral Tes Raised Ant Mou	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron E Surfac	ydrology Indicators: licators (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) De Soil Cracks (B6) ation Visible on Aerial	ator is su	——————————————————————————————————————	MLRA Salt Crus Aquatic In Hydroger Oxidized Presence Recent In Stunted of	at, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6)	- V	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visibl Geomorphic Pos Shallow Aquitare FAC-Neutral Tes	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Wetland H Primary Inc Surfac High N Satura Water Sedin Drift E Algal Iron E Surfac	ydrology Indicators: licators (any one indicators (any one indicators (A1) Water Table (A2) lation (A3) Marks (B1) lenent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6)	ator is su	——————————————————————————————————————	MLRA Salt Crus Aquatic In Hydroger Oxidized Presence Recent In Stunted of	at, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6)	- V	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visible Geomorphic Pos Shallow Aquitare FAC-Neutral Tes Raised Ant Mou	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron D Surfac Inund Spars Field Obse	ydrology Indicators: licators (any one indicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) lation (A3) Marks (B1) lation Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) Lation Visible on Aerial Lely Vegetated Concators Lervations:	Imagery ve Surfac	(B7)	MLRA Salt Crus Aquatic II Hydroger Oxidized Presence Recent Ir Stunted of	1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6)	- V	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visible Geomorphic Pos Shallow Aquitare FAC-Neutral Tes Raised Ant Mou	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron D Surfac Inund Spars Surface Wa	ydrology Indicators: licators (any one indicators Marks (B1) Marks (B1) Marks (B2) Mat or Crust (B2) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B6) Mat or Crust (B7) Mat or Crust (B4) Mat o	Imagery ve Surfac	(B7) e (B8)	MLRA Salt Crus Aquatic II Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6)	- V	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visible Geomorphic Pos Shallow Aquitare FAC-Neutral Tes Raised Ant Mou	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Primary Inc Surfar High N Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars	ydrology Indicators: licators (any one indicators Markar (B1) Markar (B1) Markar (B2) Markar (B2) Markar (B3) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B6) Mation Visible on Aerial	Imagery ve Surfac	(B7)	MLRA Salt Crus Aquatic II Hydroger Oxidized Presence Recent Ir Stunted c Other (Ex	at (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6) RR A)	3) S F F	Vater-Stained L 4A and 4B) Drainage Patters Dry-Season Wa Saturation Visibly Geomorphic Post Shallow Aquitare FAC-Neutral Test Raised Ant Mou Frost-Heave Hu	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF	ILRA 1, 2
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron D Surfac Inund Spars Field Obse Surface Wa Water table Saturation	ydrology Indicators: licators (any one indicators Markar (B1) Markar (B1) Markar (B2) Markar (B2) Markar (B3) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B6) Mation Visible on Aerial	Imagery ve Surfac	(B7) e (B8) X No X No X	MLRA Salt Crus Aquatic II Hydroger Oxidized Presence Recent Ir Stunted c Other (Ex	1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) ng Living (C4) lowed S (D1) (L l	g Roots (C oils (C6) RR A)	3) S F F	Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wa Saturation Visible Geomorphic Pos Shallow Aquitare FAC-Neutral Tes Raised Ant Mou	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF mmocks (D7)	nagery (CS
Wetland H Primary Inc Surfac High V Satura Water Sedin Drift E Algal Iron D Surfac Inund Spars Field Obse Surface Wa Water table Saturation (includes ca	ydrology Indicators: licators (any one indicators Matter Table (A2) Matter Table (A2) Marks (B1) Ment Deposits (B2) Meter Deposits (B3) Matter Crust (B4) Meter Posits (B5) Meter Posits (B5) Meter Posits (B6	Imagery ve Surfac	(B7) e (B8) NoX NoX	MLRA Salt Crus Aquatic In Hydroger Oxidized Presence Recent In Stunted of Other (Ex	at (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) ng Living (C4) lowed S (D1) (LI	g Roots (Cooils (C6)	3) 6 F	Vater-Stained L 4A and 4B) Drainage Patters Dry-Season Wa Saturation Visibly Geomorphic Post Shallow Aquitare FAC-Neutral Test Raised Ant Mou Frost-Heave Hu	ns (B10) ter Table (C2) le on Aerial Im sition (D2) d (D3) st (D5) nds (D6) (LRF mmocks (D7)	nagery (CS

Project/Site:	Plas Newydd Farn	n		City/County	: Clark Cour	nty			Sam	pling Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farn	n					State:	WA	Sam	pling Point:	22
Investigator(s):	B. Haddaway, T.S	tout		Sectio	n, Township	, Range:	DLC37	, T4N, R1W	1		
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope (%	%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967	0		Long:	122.77460	6°	Dat	um: WGS 84
Soil Map Unit Nam								ssification:	none		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		(If no, e	explain in Rema	ırks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstance	es" Pres	sent? Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	iswers ii	n Remarks.)	
SUMMARY OF	FINDINGS – A	ttach site map s	showing	sampling	point loca	ations, 1	ransec	cts, impo	rtant f	eatures, etc.	ı
Hydrophytic Veget	tation Present?	Yes X No)								
Hydric Soil Preser					ampled Are		Yes	Χ	No		
Wetland Hydrolog				within	a Wetland?		•		_	-	
Remarks:											
VEGETATION											
			Absolute	Dominant Species?	Indicator Status?			t workshe			
Tree Stratum (U	se scientific names.)						nant Specie ACW, or FA			
1. Fraxinus latifo				<u>Y</u>	FACW				<u> </u>	4	(A)
 Populus balsa 	nmifera		15	<u>Y</u>	FAC			Dominant All Strata:	_	4	(B)
4								nant Specie			
		Total Cover:	30			That Are	OBL, F	ACW, or FA	AC:	100%	(A/B)
Shrub Stratum 1.							nce Inde	ex Workshover of:	eet:	Multiply by:	
2.				-		OBL spe	ecies		x1 =	0	
3						FACW					
4						FAC spe	ecies		x3 =	0	
5									x4 =	0	
		Total Cover:	0			UPL spe			x5 =	0	
Herb Stratum					E 4 014/			0		0	(B)
1. <u>Lysimachia nu</u>			40		FACW	Preva	ence Ind	dex = B/A =		#DIV/0!	<u></u>
2. Alopecurus pr			80	<u>Y</u>	FAC FAC	I leaders			-l!4		
 Ranunculus re 4. 	epens		15		FAC	Hyarop		getation In			
-								ninance Te		nytic Vegetation	
		_			·			valence Ind			
7						*******				on1 (Provide su	ınnortina
8.									•	eparate sheet)	apporting
_					-			tland Non-V		. ,	
40										egetation ¹ (Exp	olain)
11.									,	-9	,
		Total Cover:	135								
Woody Vine S	Stratum_							dric soil and		d hydrology mu olematic.	st
2.						Uvdea-	hytic				
		Total Cover:	0		·	Hydrop Vegetat	-				
% Ba	re Ground in Herb S			otic Crust	0	Present			Yes X	No_	
Remarks:					<u> </u>	<u> </u>					 _
1											

									Sampling	Point:		
Profile De	scription: (Describe	to the de	epth needed to do	cument th	ne indicat	or or c	onfirm th	e absence	e of indicator	s.)		
Depth	Matrix		R	edox Featu	ures							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc		exture		Rema	rks	
0-3	10 YR 3/2	100						LOAM				
3-8	10 YR 4/2	83	7.5 YR 4/4	10	С	М	SILT	LOAM	. <u> </u>			
			10 YR 5/2	5	D	М						
			5 YR 3/4	2	С	PL						
8-16	10 YR 4/2	65	7.5 YR 4/4	15	С	М	SILT	LOAM				
			10 YR 5/2	15	D	М						
	_		5 YR 3/4	5	С	M						
Type: C=	Concentration, D=Dep	letion, RI	M=Reduced Matrix	, CS=Cove	ered or Co	ated Sa	nd Grains	s. ² Locati	on: PL=Pore	Lining, M=Ma	atrix.	
lydric So	il Indicators: (Applic	able to a	III I RRs unless o	therwise n	noted)		Indic	ators for	Problematic	Hydric Soils	3.	
-	sol (A1)	abic to a		Redox (S	-		man	,ator 3 101	2 cm Muck (•	, .	
	Epipedon (A2)			ed Matrix (•					Material (TF2	2)	
	Histic (A3)			/ Mucky Mi	,) (excer	t MLRA	1)	•	ain in Remark		
	ogen Sulfide (A4)			/ Gleyed M							,	
	eted Below Dark Surfa	ce (A11)		ted Matrix (, ,	,						
	Dark Surface (A12)	,		Dark Surf				³ Indicator	s of hydrophy	tic vegetation	and	
	ly Muck Mineral (S2)			ted Dark S		7)			d hydrology m	_		
	ly gleyed Matrix (S4)			Depression		,			ss disturbed or			
	e Layer (if present):		<u> </u>		(- /							
1763016014												
Туре:	hes):						Hydric So	oil Presen	t?	Yes X	No _	
Type: Depth (inc	hes):		<u> </u>				Hydric So	oil Presen	it?	Yes X	No _	
Type: Depth (inc	hes):						Hydric So	oil Presen	t?	Yes X	No _	
Гуре: Depth (inc	hes):						Hydric So	oil Presen	ıt?	Yes X	No _	
Type: Depth (inc	hes):						Hydric So	oil Presen	t?	Yes X	No _	
Type: Depth (inc marks:							Hydric So	pil Presen	t?	Yes X	No _	
ype: Depth (inc marks:							Hydric So	oil Presen	it?	Yes X	No _	
Type: Depth (inc marks: TOROLOG Wetland H	GY.		fficient)				Hydric So	oil Presen	t? Secondary In			red)
Type: Depth (inc marks: TOROLOG Wetland F Primary In	SY Hydrology Indicators:			-Stained Le	eaves (B9			oil Presen	Secondary In		r more requi	
Type:	SY Hydrology Indicators: dicators (any one indic		Water	-Stained Lo)) (exce		oil Presen	Secondary In	dicators (2 or ed Leaves (E	r more requi	
Type: Depth (inc marks: TDROLOG Wetland F Primary Inc Surfa High	Hydrology Indicators: dicators (any one indicators (A1)		Water)) (exce		oil Presen	Secondary In Water-Stain 4A and 4	dicators (2 or ed Leaves (E	r more requi	
DROLOG Wetland H Surfa High Satu	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		Water ML Salt C	RA 1, 2, 4 <i>A</i>	A and 4B)	exce		pil Presen	Secondary In Water-Stain 4A and 4	dicators (2 or ed Leaves (E	r more requi	
Opposition of the control of the con	Hydrology Indicators: dicators (any one indicators (A1) water Table (A2) ration (A3)		Water ML Salt C Aquat	RA 1, 2, 4 rust (B11)	A and 4B)	9) (exce)		pil Presen	Secondary In Water-Stain 4A and 4 Drainage Pa	dicators (2 or ed Leaves (E 4B) atterns (B10)	r more requi	I, 2,
Depth (inc emarks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		Water ML Salt C Aquat Hydro	RA 1, 2, 4<i>A</i> rust (B11) c Invertebr	A and 4B) rates (B13 e Odor (C	9) (exce) 3)	pt		Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V	dicators (2 or ed Leaves (E 1B) atterns (B10) Water Table	more requi	1, 2,
Type:	Hydrology Indicators: dicators (any one indicators (any one indicators (A1)) water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Water ML Salt C Aquat Hydro X Oxidiz	RA 1, 2, 4 <i>f</i> rust (B11) ic Invertebr gen Sulfide	A and 4B) rates (B13 e Odor (C pheres alc	(exce	pt		Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V	dicators (2 or ed Leaves (E 4B) atterns (B10) Water Table /isible on Aer c Position (D2	more requi	I, 2,
Type: Depth (incommarks: * **TOROLOG** **Wetland H** **Primary Incomm	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		Water ML Salt C Aquat Hydro X Oxidiz Prese	RA 1, 2, 44 rust (B11) ic Invertebr gen Sulfide ed Rhizosp	rates (B13 e Odor (Copheres ald	3) (exce) 1) 1) pong Livin (C4)	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic	dicators (2 or ed Leaves (E 4B) atterns (B10) Water Table /isible on Aer c Position (D2 uitard (D3)	more requi	1, 2,
Type:	dicators: (any one indicators: dicators (any one indicators (any one indicators) (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		Water ML Salt C Aquat Hydro X Oxidiz Prese Recer	RA 1, 2, 44 rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red	A and 4B) rates (B13 e Odor (C oheres ald luced Iron uction in F	3) (exce) 1) 1) png Livii I (C4)	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu	dicators (2 or ed Leaves (E 4B) atterns (B10) Water Table /isible on Aer c Position (D2 uitard (D3)	more requi 39) (MLRA 1 (C2) ial Imagery	I, 2,
Type:	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	ator is su	Water ML Salt C Aquat Hydro X Oxidiz Prese Recer Stunte	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Red	A and 4B) rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants	(C4) Plowed s (D1) (I	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	dicators (2 or ed Leaves (E 1B) atterns (B10) Water Table /isible on Aer c Position (D2 uitard (D3)	(C2) ial Imagery	1, 2,
Type:	dicators (any one indicators: dicators (any one indicators (any one indicators) (are Water (A1)) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Water ML Salt C Aquat Hydro X Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 44 rust (B11) ic Invertebringen Sulfide ed Rhizospince of Red at Iron Redi	A and 4B) rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants	(C4) Plowed s (D1) (I	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	dicators (2 or ed Leaves (E 18) atterns (B10) Water Table (risible on Aer e Position (D2 uitard (D3) Il Test (D5) Mounds (D6)	(C2) ial Imagery	I, 2,
Type:	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dece Soil Cracks (B6) dation Visible on Aerial	ator is su	Water ML Salt C Aquat Hydro X Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 44 rust (B11) ic Invertebringen Sulfide ed Rhizospince of Red at Iron Redi	A and 4B) rates (B13 e Odor (C pheres alc luced Iron uction in F sed Plants	(C4) Plowed s (D1) (I	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	dicators (2 or ed Leaves (E 18) atterns (B10) Water Table (risible on Aer e Position (D2 uitard (D3) Il Test (D5) Mounds (D6)	(C2) ial Imagery	I, 2,
Type:	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) Tation (A3) T	Imagery ve Surfac	Water ML Salt C Aquat Hydro X Oxidiz Prese Recer Stunte (B7) Other e (B8) No X Dep	RA 1, 2, 44 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Red ed or Stress (Explain in	A and 4B) rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) (I	pt ng Roots	(C3) X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	dicators (2 or ed Leaves (E 18) atterns (B10) Water Table (risible on Aer e Position (D2 uitard (D3) Il Test (D5) Mounds (D6)	(C2) ial Imagery	1, 2,
Type:	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (ace Soil Vegetated Concavervations: Vegetater Present? Vesee Present?	Imagery ve Surfac	Water ML Salt C Aquat Hydro X Oxidiz Prese Recer Stunte (B7) Other e (B8) Other No X Dep Dep	RA 1, 2, 44 rust (B11) c Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Red ed or Stress (Explain in	A and 4B) rates (B13 e Odor (C pheres ald luced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) (I	pt Soils (C6) RR A)	(C3) X X	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant	dicators (2 or ed Leaves (E 4B) atterns (B10) Water Table /isible on Aer c Position (D2 uitard (D3) Il Test (D5) Mounds (D6) e Hummocks	r more requi	1, 2,

Remarks:

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling I	Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling I	Point:	23
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37,	T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none):	none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°	1		Long:	122.774606)°	_ Datum:	: WGS 84
Soil Map Unit Nam								ssification:	none		
Are climatic / hydro	ologic conditions on the	ne site typical for tl	nis time of y	/ear?	Yes 2	X	No		(If no, explain	in Remarks	;)
Are Vegetation	, Soil						Normal Ci	rcumstance	s" Present?	Yes X	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	lain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transec	ts, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No									
Hydric Soil Presen		Yes X No			ampled Area a Wetland?		Yes	Х	No		
Wetland Hydrology	y Present?	Yes X No		WILLIIII	a vvetianu:		=				
Remarks:											
VEGETATION											
			Absolute	Dominant	Indicator	Domina	ance Tes	t workshee	t:		
Tree Stratum (U:	se scientific names.)		% Cover	Species?	Status?	Numbe	r of Domii	nant Specie	s		
1.	,					That Ar	e OBL, F	ACW, or FA	C:	2	(A)
2.						Total N	umber of	Dominant			_ ` ′
3.						Species	Across A	All Strata:		2	(B)
4.						Percent	t of Domir	nant Specie	s		- ' '
		Total Cover:	0					ACW, or FA		100%	_(A/B)
Shrub Stratum 1. 2.							tal % Cov			Itiply by:	
3						FACW	species _		x2 =	0	_
4						FAC sp	ecies		x3 =	0	_
5						FACU s	species _		x4 =	0	_
		Total Cover:	0			UPL sp	_		x5 =	0	_
Her <u>b Stratum</u>								0		0	_(B)
1. Phalaris arund			40		FACW	Preva	lence Ind	lex = B/A =	#DI\	V/0!	_
2. Alopecurus pra	atensis			Y	FAC						
3. Poa annua			15		FAC	Hydrop		getation Inc			
4. Persicaria hyd	ropiper		5		OBL		•		lydrophytic V	egetation	
5.						X		ninance Tes valence Inde			
_						#####					
							•	_	daptation1 (F		orting
_							•		on a separat ascular Plants	•	
							•		ohytic Vegeta	_	n)
							Problem	natic Hydroj	mylic vegeta	lion (⊏xpian	11)
11		Total Cover:	140								
Woody Vine S	<u>tratum</u>	Total Cover.	140						wetland hydr		
2.						Hydrop	hytic				
		Total Cover:	0			Vegeta	•				
% Ba	re Ground in Herb St				0	Presen			Yes X	No	
Remarks:						I					

Depth	Matrix	(Re	edox Featu	ıres		_				
(inches)	Color (moist)	%	С	olor (moist)	%	Type ¹	Loc ²	Texture	<u> </u>		Remarks	
0-4	10 YR 3/2	80	5 YI	R 3/4	10	С	М	SILT LOA	Л			
			10 \	YR 5/2	5	D	М	_				
			7.5	YR 4/4	5	С	М	_				
4-8	10 YR 5/2	78	5 YI	R 3/4	20	С	M	SILT LOAI	Л			
			10 \	YR 6/2	2	D	M	_				
8-12	10 YR 4/2	80	7.5	YR 4/4	10	С	М	SILT LOA	И			
			10 \	YR 6/2	10	D	М					
12-16	10 YR 5/2	85	5 YI	R 4/4	10	С	M	SILT LOA	<u>л</u>			
1= 0.0				YR 4/4	5	<u>C</u>	M	21				
туре. С-С	Concentration, D=I	Jepielion, R	.ivi–rte	duced Matrix,	CS-Cove	red or Co	aleu Sai	iu Giailis. Li	Callon. P	L-Pore Limit	g, IVI–IVIALITX.	
Hydric Soil	I Indicators: (Ap	olicable to	all LRI	Rs, unless ot	herwise n	oted.)		Indicators	for Probl	ematic Hydr	ric Soils ³ :	
-	sol (A1)				Redox (S5	-			2 cn	n Muck (A10))	
Histic	Epipedon (A2)			Strippe	ed Matrix (S	S6)			Red	Parent Mate	rial (TF2)	
	Histic (A3)				•	•) (except	MLRA 1)		er (Explain in		
	gen Sulfide (A4)				Gleyed M	` '	•	,			,	
	ted Below Dark Su	ırface (A11)	1		ed Matrix (•					
	Dark Surface (A1:				Dark Surfa			³ Indic	ators of h	ydrophytic ve	egetation and	
	Muck Mineral (S2				ed Dark Su	` ,	7)			ology must b	•	
	gleyed Matrix (S4				Depression		,		-	urbed or prob		
	Layer (if present				<u> </u>					<u> </u>		
1763016016												
	,											
Type: Depth (inch				- -			H	lydric Soil Pre	esent?	Ye	es <u>X</u>	No
Type: Depth (inch				<u>-</u>			Н	lydric Soil Pre	esent?	Ye	es X	No
Type: Depth (inch emarks:	es):			<u>-</u>			Н	lydric Soil Pre	esent?	Ye	es X	No
Type: Depth (inchiemarks:	es):			<u>-</u>			Н	lydric Soil Pre	esent?	Ye	es <u>X</u>	No
Type: Depth (inchiemarks: YDROLOG) Wetland Hy	es):Y ydrology Indicato						H	lydric Soil Pre				
Type: Depth (inchiemarks: YDROLOG) Wetland Hy Primary Indi	es): Y ydrology Indicato icators (any one ir		ufficier			(D)			Seco	ndary Indicate	ors (2 or more	e required
Type: Depth (incher emarks: YDROLOGY Wetland Hy Primary Indi	Y ydrology Indicator icators (any one ince Water (A1)		ufficier	Water-	Stained Le	`)) (excep		Secol Wat	ndary Indicate er-Stained Le		e required
Type: Depth (incher emarks: YDROLOG) Wetland Hy Primary Indi Surfact X High V	y ydrology Indicato icators (any one in ce Water (A1) Nater Table (A2)		ufficier	Water-	RA 1, 2, 4A	`)) (excep		Secol Wat	ndary Indicate er-Stained Le A and 4B)	ors (2 or more	e required
Type: Depth (inchemarks: YDROLOG) Wetland Hy Primary Indi Surfact X High V Satura	y ydrology Indicato icators (any one in be Water (A1) Water Table (A2) ation (A3)		ufficier	Water- MLR Salt Cr	R A 1, 2, 4A rust (B11)	and 4B)	excep		Secon Wat 4 Drai	ndary Indicate er-Stained Le A and 4B) nage Pattern	ors (2 or more eaves (B9) (N s (B10)	e required
Type: Depth (incher emarks: YDROLOG) Wetland Hy Primary Indi Surfact X High V Satura Water	y ydrology Indicato icators (any one ir ce Water (A1) Nater Table (A2) ation (A3) Marks (B1)	idicator is s	ufficier	Water- MLR Salt Cr Aquation	RA 1, 2, 4A rust (B11) c Invertebr	and 4B)	9) (excep		Secol Wat 4 Drai Dry-	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate	ors (2 or more eaves (B9) (N is (B10) er Table (C2)	e required
Type: Depth (incheremarks: YDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim	y ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2)	idicator is s	ufficier	Water- MLR Salt Cr Aquatio	RA 1, 2, 4A rust (B11) c Invertebr gen Sulfide	and 4B) rates (B13	9) (excep	ot .	Secol Wat 4 Drai Dry- Satu	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate iration Visible	ors (2 or more eaves (B9) (N es (B10) er Table (C2) e on Aerial Im	e required
Type: Depth (incheremarks: YDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim Drift D	y ydrology Indicato icators (any one in the Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) deposits (B3)	idicator is s	ufficier	Water- MLR Salt Cr Aquatic Hydrog Oxidize	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp	and 4B) rates (B13 e Odor (Coheres ald	(exception))))))))))))))))))))))))))))))		Secol Wat 4 Drai Dry- Satu Geo	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate Iration Visible morphic Posi	ors (2 or more eaves (B9) (N es (B10) er Table (C2) e on Aerial Im ition (D2)	e required
Type: Depth (inchiemarks: YDROLOG) Wetland Hy Primary Indi Surfact X High V Satura Water Sedim Drift D Algal N	y ydrology Indicato icators (any one ir ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4)	idicator is s	ufficier	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red	and 4B) rates (B13 e Odor (Copheres alouced Iron	B) (excep 3) 1) nong Livin (C4)	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate iration Visible morphic Posi	ors (2 or more eaves (B9) (N es (B10) er Table (C2) e on Aerial Im ition (D2) (D3)	e required
Type: Depth (inchinemarks: YDROLOGY Wetland Hy Primary Indi Surfact X High V Saturat Water Sedim Drift D Algal M Iron De	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)	dicator is s	ufficier	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Redi t Iron Redu	ates (B13 Odor (Coheres ald uced Iron	3) (excep 3) 1) ong Livin (C4) Plowed S	g Roots (C3)	Secol Wat 4 Drai Dry- Satu Geo Sha FAC	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate Iration Visible morphic Posi llow Aquitard c-Neutral Tes	ors (2 or more eaves (B9) (N es (B10) er Table (C2) e on Aerial Im ition (D2) (D3)	e required
Type: Depth (inchinemarks: YDROLOGY Wetland Hy Primary Indii Surfact X High V Satura Water Sedim Drift D Algal N Iron De Surfact	y ydrology Indicator icators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6	dicator is s		Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunter	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress	ates (B13 Odor (Control of the Control 3) 1) 2) (excep 3) 1) 2) ong Livin (C4) 2) lowed S 3 (D1) (L	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate uration Visible morphic Posi llow Aquitard C-Neutral Tes sed Ant Moun	ors (2 or more eaves (B9) (Notes (B10) er Table (C2) e on Aerial Imition (D2) (D3) tt (D5) nds (D6) (LRF	e required	
Type: Depth (incherents: YDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim Drift D Algal N Iron De Surfact Inunda	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) the posits (B5) the Soil Cracks (B6) ation Visible on Ae	dicator is s dicator is dicator is s dicator is dicator (B7)	Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Redi t Iron Redu	ates (B13 Odor (Control of the Control 3) 1) 2) (excep 3) 1) 2) ong Livin (C4) 2) lowed S 3 (D1) (L	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate uration Visible morphic Posi llow Aquitard C-Neutral Tes sed Ant Moun	ors (2 or more eaves (B9) (N es (B10) er Table (C2) e on Aerial Im ition (D2) (D3)	e required		
Type: Depth (inchine the content of	y ydrology Indicator icators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6	dicator is s dicator is dicator is s dicator is dicator (B7)	Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress	ates (B13 Odor (Control of the Control 3) 1) 2) (excep 3) 1) 2) ong Livin (C4) 2) lowed S 3 (D1) (L	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate uration Visible morphic Posi llow Aquitard C-Neutral Tes sed Ant Moun	ors (2 or more eaves (B9) (Notes (B10) er Table (C2) e on Aerial Imition (D2) (D3) tt (D5) nds (D6) (LRF	e required		
Type: Depth (inchine the content of	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) the Property (B5) the Soil Cracks (B6) ation Visible on Ae the Provisions:) rial Imagery cave Surface	/ (B7) ce (B8	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress Explain in	and 4B) rates (B13 rates (Canada Canada	3) 1) 2) (excep 3) 1) 2) ong Livin (C4) 2) lowed S 3 (D1) (L	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate uration Visible morphic Posi llow Aquitard C-Neutral Tes sed Ant Moun	ors (2 or more eaves (B9) (Notes (B10) er Table (C2) e on Aerial Imition (D2) (D3) tt (D5) nds (D6) (LRF	e required
Type: Depth (inchemarks: YDROLOGY Wetland Hy Primary Indi Surfact X High V Saturat Water Sedim Drift D Algal N Iron Do Surfact Inundat Sparse Surface Water	y ydrology Indicator icators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Core irvations: ater Present?) rial Imagery cave Surfac	/ (B7) ce (B8 No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in	and 4B) rates (B13 rates (Canada Canada	P) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3)	Secon Wat 4 Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate uration Visible morphic Posi llow Aquitard C-Neutral Tes sed Ant Moun	ors (2 or more eaves (B9) (Notes (B10) er Table (C2) e on Aerial Imition (D2) (D3) tt (D5) nds (D6) (LRF	e required
Type: Depth (inchemarks: YDROLOG) Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron De Surface Inunda Sparse Surface Wa Water table	y ydrology Indicate icators (any one in be Water (A1) Vater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) ment Deposits (B5) be Soil Cracks (B6 ation Visible on Ae ely Vegetated Cor prevations: ater Present? Present?) rial Imagery cave Surface Yes Yes X	v (B7) ce (B8 No No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter Other () X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in th (inches)	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capac	P) (exception) 1) 1) 1) (C4) Plowed S S (D1) (L	g Roots (C3) oils (C6) RR A)	Secol Wat Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate aration Visible morphic Posi llow Aquitard c-Neutral Tes sed Ant Moun st-Heave Hun	ors (2 or more eaves (B9) (Notes (B10)) er Table (C2) e on Aerial Imition (D2) (D3) et (D5) ands (D6) (LRF enmocks (D7)	agery (C
Type: Depth (inchine the content of	y ydrology Indicator icators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Acely Vegetated Core irvations: ater Present? Present?) rial Imagery cave Surfac	/ (B7) ce (B8 No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter Other () X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capac	P) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3)	Secol Wat Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate aration Visible morphic Posi llow Aquitard c-Neutral Tes sed Ant Moun st-Heave Hun	ors (2 or more eaves (B9) (Notes (B10) er Table (C2) e on Aerial Imition (D2) (D3) tt (D5) nds (D6) (LRF	e required
Type: Depth (inche emarks: PYDROLOG) Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron De Surface Inunda Sparse Surface Wa Water table Saturation F (includes ca	y ydrology Indicate icators (any one in be Water (A1) Vater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) ment Deposits (B5) be Soil Cracks (B6 ation Visible on Ae ely Vegetated Cor prevations: ater Present? Present?) rial Imagery cave Surface Yes Yes X Yes X	v (B7) ce (B8 No No No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter Other () X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in th (inches) th (inches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L5)	g Roots (C3) oils (C6) RR A) Wetland H	Secol Wat Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate aration Visible morphic Posi llow Aquitard c-Neutral Tes sed Ant Moun st-Heave Hun	ors (2 or more eaves (B9) (Notes (B10)) er Table (C2) e on Aerial Imition (D2) (D3) et (D5) nds (D6) (LRF)	agery (C
Type: Depth (inche emarks: PYDROLOG) Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron De Surface Inunda Sparse Surface Wa Water table Saturation F (includes ca	y ydrology Indicate icators (any one in be Water (A1) Vater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) ment Deposits (B5) be Soil Cracks (B6 ation Visible on Ae ely Vegetated Cor ervations: ater Present? Present? apillary fringe)) rial Imagery cave Surface Yes Yes X Yes X	v (B7) ce (B8 No No No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter Other () X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in th (inches) th (inches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L5)	g Roots (C3) oils (C6) RR A) Wetland H	Secol Wat Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate aration Visible morphic Posi llow Aquitard c-Neutral Tes sed Ant Moun st-Heave Hun	ors (2 or more eaves (B9) (Notes (B10)) er Table (C2) e on Aerial Imition (D2) (D3) et (D5) nds (D6) (LRF)	agery (C
Type: Depth (inche emarks: PYDROLOG) Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron De Surface Inunda Sparse Surface Wa Water table Saturation F (includes ca	y ydrology Indicate icators (any one in be Water (A1) Vater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) ment Deposits (B5) be Soil Cracks (B6 ation Visible on Ae ely Vegetated Cor ervations: ater Present? Present? apillary fringe)) rial Imagery cave Surface Yes Yes X Yes X	v (B7) ce (B8 No No No	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter Other () X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in th (inches) th (inches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L5)	g Roots (C3) oils (C6) RR A) Wetland H	Secol Wat Drai Dry- Satu Geo Sha FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate aration Visible morphic Posi llow Aquitard c-Neutral Tes sed Ant Moun st-Heave Hun	ors (2 or more eaves (B9) (Notes (B10)) er Table (C2) e on Aerial Imition (D2) (D3) et (D5) nds (D6) (LRF)	agery (C

Applicant/Owner Pless Newyork Farm Pless Newyork Farm Pless Newyork Farm Pless New Pless N	Project/Site:	Plas Newydd Farn	n		City/County:	: Clark Cour	nty			San	npling Date	e:	5/1/2014
Landform (Nilallope, Iterace, etc.) Piccopilism Lat 48,85098** May Unit Name Sauvie sitt loam Salvie sitt loam	Applicant/Owner:	Plas Newydd Farn	n					State:	WA	San	npling Poin	t:	24
Solidado Unit Name	Investigator(s):	B. Haddaway, T.S	tout		Section	n, Township	, Range:	S2, T4	N, R1W				
Solition Manual Solition	Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slo	pe (%):	0-1%
An almatic / hydrologic conditions on the site byteral for this time of year? Yes X	Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460)6°		Datum	: WGS 84
Soli	•								ssification:	PFOR			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes	X	No		_(If no,	explain in	Remark	s)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No within a Wetland Hydrology Present? Yes X No within a Wetland? VEGETATION Time Stratum (Use scientific names.)	Are Vegetation							lormal C	ircumstand	es" Pre	sent? Ye	s X	_No
Hydrophylic Vegetation Present?	Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers i	n Remarks	s.)	
Street Stratum Continue Street Stratum Continue Street Stratum Continue Street Stratum Continue Stratum Con	SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	rtant f	eatures,	etc.	
Street Stratum Continue Street Stratum Continue Street Stratum Continue Street Stratum Continue Stratum Con	Hvdrophytic Veget	tation Present?	Yes X No)									
VEGETATION								Yes	Χ	No			
Number of Dominant Species Number of Domi	Wetland Hydrolog	y Present?	Yes X No)	WILLIIII	a welland:		•		_			
Number of Dominant Species Number of Domi	Remarks:	-											
Tree Stratum (Use scientific names.) % Cover Species? Status?	VEGETATION												
Praximus latifolia	Tree Stratum (U	se scientific names)										
Populus balsamiliara	,		,	10	Y	FACW	That Are	OBL, F	ACW, or F	AC:	4		(A)
Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)	-						Total Nu	ımber of	Dominant	_			_('')
Total Cover: 25							Species	Across	All Strata:		5		(B)
Total Cover:	4.					-	Percent	of Domi	nant Speci	es			<u> </u>
1. Rubus armeniacus 20 Y			Total Cover:	25							80%	, 0	_(A/B)
1. Rubus armeniacus 20 Y													
OBL species						FAOU				eet:			
Section Sect		acus		20	Y	FACU				- , —		/ by:	_
FAC species X3 = 0										_			_
FACU species	-							•					_
Total Cover: 20	_												_
Column Totals: 0 (A) 0 (B)	Jo		Total Cover:	20									_
1. Phalaris arundinacea 60 Y FACW 2. Alopecurus pratensis 40 Y FAC 3. Ranunculus repens 10 FAC 4. Sanunculus repens 10 FAC 5. Sanunculus repens 10 FAC 6. Sanunculus repens 10 FAC 7. Sanunculus repens 10 FAC 8. Sanunculus repens 10 FAC 8. Sanunculus repens 10 FAC 9. Sanunculus repens 10 FAC 9. Sanunculus repens 10 FAC 1. Rapid Test for Hydrophytic Vegetation 1. R	Herb Stratum								0				_ (B)
3. Ranunculus repens 10 FAC Hydrophytic Vegetation Indicators: 4.		dinacea		60	Υ	FACW							
4.	2. Alopecurus pr	atensis		40	Υ	FAC							
X 2 - Dominance Test is >50% ##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 9.	3. Ranunculus re	epens		10		FAC	Hydrop	hytic Ve	getation Ir	ndicato	rs:		
6. ##### 3 - Prevalence Index is ≤3.0¹ 7. 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 9. 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Total Cover: 110	4											tation	
7	5												
8	-						#####						
9	-					·				•			orting
10			·		-						•	neet)	
Total Cover:110	10											1 (=	:>
Total Cover:10 Woody Vine Stratum 1	-							Probler	nauc nyur	рпуцс	vegetation	(Explai	.H)
Woody Vine Stratum	11.		Total Cover	110									
1. be present, unless disturbed or problematic. 2. Hydrophytic Vegetation Vegetation Present? Yes X No	Woody Vine S	Stratum	rotal cover.				1Indicate	ors of hy	dric soil an	d wetlar	nd hydroloc	ıv must	
2		aratam										jy illust	
Total Cover: Hydrophytic							المراجات	hutio					
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No			Total Cover:	0		-							
<u> </u>	% Ba	re Ground in Herb S			otic Crust	0	_			Yes X	N	lo_	
	Remarks:		<u> </u>				<u> </u>						

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth (inches) Color (moist) Color (moist) Type¹ Loc² Texture Remarks PL0-5 10 YR 4/2 90 7.5 yr 4/6 10 c SILT LOAM С 5-16 10 YR 4/2 70 7.5 YR 4/6 10 Μ SILT LOAM 20 C 7.5 YR 3/3 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Muck Mineral (S2) 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty		Sampling I	Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling I	Point:	25
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S2, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	x, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A) Lat:	45.850967°	0		Long: 122.77	4606°	Datum	: WGS 84
Soil Map Unit Nam	ne: Sauvie silt lo	oam, sandy substra	atum				NWI Classificati	on: PFOR		
Are climatic / hydro	ologic conditions on tl	he site typical for t	his time of y	/ear?	Yes	X	No	(If no, explair	າ in Remarks	s)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	Normal Circumst	ances" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain an	y answers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, im	portant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)	l- 4- 0		_				
Hydric Soil Presen	it?	Yes X No)		ampled Are a Wetland?		Yes X	No		
Wetland Hydrology	y Present?	Yes X No)	Within	a wenana:					
Remarks:										
VEGETATION										
Tree Stratum (U	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?		ince Test works of Dominant Sp			
Fraxinus latifo	,		40	Y	FACW	That Ar	e OBL, FACW, o	or FAC:	4	(A)
2. Populus balsa			30		FAC	Total No	umber of Domina	ant		_` ′
3.						Species	Across All Strat	ta:	6	_(B)
4						Percent	of Dominant Sp	ecies		
		Total Cover:	70			That Ar	e OBL, FACW, o	or FAC:	67%	_(A/B)
Shrub Stratum						Prevale	nce Index Worl	ksheet:		
Rubus armenia	acus		10	Υ	FACU		tal % Cover of:		Itiply by:	
2. Rubus leucode	ermis		20	Υ	FACU	OBL sp	ecies	x1 =	0	_
3. Cornus alba			5		FACW		species	x2 =	0	_
4. Symphoricarp	os albus		5		FACU	FAC sp		x3 =	0	_
5.							pecies	x4 =	0	_
		Total Cover:	40		·	UPL sp		x5 =	0	_
Herb Stratum						Column	Totals: 0	(A)	0	(B)
1. Phalaris arund	dinacea		65	Υ	FACW	Preva	lence Index = B/	/A = #DI	V/0!	_
2. Lysimachia nu	ımmularia		4		FACW					
3. Ranunculus re	epens		20	Υ	FAC	Hydrop	hytic Vegetatio	n Indicators:		
4.							1 - Rapid Test	for Hydrophytic V	egetation	
5						X	2 - Dominance	Test is >50%		
6.						#####	3 - Prevalence	Index is ≤3.0 ¹		
7							4 - Morphologi	cal Adaptation1 (F	rovide supp	orting
8							data in Remark	ks or on a separat	te sheet)	
9.							5 - Wetland No	on-Vascular Plant	S2	
10						-	Problematic Hy	ydrophytic Vegeta	tion¹ (Explai	n)
				-						
		Total Cover:	89							
Woody Vine S	<u>stratum</u>							and wetland hydr		
1						be pres	ent, uniess aistu	rbed or problemat	IIC.	
2						Hydrop	hytic			
		Total Cover:			=	Vegeta				
	re Ground in Herb St			otic Crust	0	Presen	t?	Yes X	_ No	
Remarks: Prevale	nce Index calculated	because Dominac	e Index=50	%		_				

3-7	Color (moist)			Redox Featu							
3-7	Coloi (Illoist)	%	Color (moist	t) %	Type ¹	Loc ²	Textur	<u>e</u>		Remarks	
	10 YR 3/2	100					SILT LOA	.M			
7_11 1	10 YR 4/2	90	7.5 YR 3/4	5	С	М	SILT LOA	.M			
7_11 1			10 YR 5/1	5	D	М					
<u></u> <u>-</u>	10 YR 4/2	85	10 YR 5/1	10	D	M	SILT LOA	.M			
			5 YR 4/4	5	С	М					
11-16 1	10 YR 4/2	65	10 YR 5/2	15	D	M	SILT LOA	.M			
			10 YR 5/1	10	D	M					
			5 YR 4/4	10	С	M					
1T./200 C=C0	oncentration, D=De	mletien DN	7.5 YR 5/6	10	C	M Can	d Craina 21		. DI – Dava Lin	ina M-Matrix	
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, p. o		, 00 0010						9,	
=	ndicators: (Appl	icable to al			-		Indicator		oblematic Hy		
Histosol				ndy Redox (S					2 cm Muck (A1		
Histic Ep	pipedon (A2)			pped Matrix (S				F	Red Parent Ma	terial (TF2)	
	istic (A3)			my Mucky Mi	• •		MLRA 1)		Other (Explain	in Remarks)	
	en Sulfide (A4)			my Gleyed M)					
	d Below Dark Surf	ace (A11)		oleted Matrix (=				
	ark Surface (A12)			dox Dark Surf	` '					vegetation and	
	Muck Mineral (S2)			oleted Dark Si		7)			ydrology must		
	gleyed Matrix (S4)		Red	dox Depression	ns (F8)			unless o	disturbed or pr	oblematic.	
Restrictive L	ayer (if present):										
									_		
Depth (inches	s):					Hy	ydric Soil Pr	esent?		/es <u>X</u>	No
emarks:						Н	ydric Soil Pr	esent?		/es <u>X</u>	No
Depth (inches emarks: YDROLOGY Wetland Hyd	drology Indicators					Hy	ydric Soil Pr				
Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica	drology Indicators							Se	econdary Indic	ators (2 or mor	e required
Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface	drology Indicators ators (any one ind Water (A1)		Wa	ter-Stained Le		except)		Se	econdary Indic Vater-Stained	ators (2 or mor Leaves (B9) (N	e required
Primary Indica Surface High Wa	drology Indicators ators (any one ind Water (A1) ater Table (A2)		Wa	/ILRA 1, 2, 4A		except)		<u>Se</u>	econdary Indic Vater-Stained 4A and 4B)	ators (2 or mor Leaves (B9) (N	e required
YDROLOGY Wetland Hyd Primary Indica Surface High Wa	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3)		Wa N Sal	/ILRA 1, 2, 4/ t Crust (B11)	and 4B)	except		S6V 	econdary Indic Vater-Stained 4A and 4B) Orainage Patte	ators (2 or mor Leaves (B9) (N rns (B10)	e required
YDROLOGY Wetland Hyd Primary Indica Surface High Water M	drology Indicators ators (any one ind Water (A1) ater Table (A2) ion (A3) Marks (B1)		Wa Sal Aqu	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr	and 4B)	9) (except)		SeV	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wi	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2)	e required
Primary Indica Surface High Water M Sedimer	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		Wa I Sal Aqu Hyo	IILRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide	and 4B) rates (B13 rates (C	9) (except) 3)		Se	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ble on Aerial Im	e required
Primary Indica Surface High Water M Sedimer Drift Dep	drology Indicators eators (any one ind water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Wa Sal Aqu Hyo Oxi	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp	and 4B) rates (B13 e Odor (Coheres ald	(exception) (a) (exception) (b) (exception) (c) (exception)		Se	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit Geomorphic Po	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ble on Aerial Im osition (D2)	e required
Pepth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	drology Indicators ators (any one ind Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Wa N Sal Aqu Hyo Oxi	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red	and 4B) rates (B13 e Odor (Copheres ald	9) (except) 3) 1) ong Living (C4)	Roots (C3)	S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit Geomorphic Po Shallow Aquita	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3)	e required
Popth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Wa Sal Aqu Hyo Oxi Pre Rec	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu	ates (B13 Odor (Coheres ald uced Iron	except (except 3) 1) png Living (C4) Plowed Sc	Roots (C3)		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5)	e required
Primary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators ators (any one ind Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	icator is suf	Wa Sal Aqu Hyo Oxi Pre Rec Stu	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	(except b) 1) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	See V	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required
Pepth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	drology Indicators eators (any one ind e Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeric	icator is suf	Wa Sal Aqu Hyo Oxi Pre Rec Stu Oth	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	(except b) 1) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	See V	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5)	e required
Pepth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric	icator is suf	Wa Sal Aqu Hyo Oxi Pre Rec Stu Oth	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	(except b) 1) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	See V	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required
YDROLOGY Wetland Hyd Primary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Observ	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Concivations:	icator is suf al Imagery (ave Surface	Wa Sal Aqu Oxi Pre Rec Stu (B7) Other e (B8)	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress aer (Explain in	and 4B) rates (B13 rates (B13 rates (Control rates ald r	(except b) 1) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	See V	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required
Pepth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Observ Surface Water	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Concurations: er Present?	icator is suf	Wa Sal Aqu Oxi Pre Rec Stu (B7) Oth e (B8)	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress her (Explain in	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capaci	i) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	See V	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required
Poepth (inches demarks: PYDROLOGY Wetland Hyd Primary Indication Surface High Water Mand Sedimer Drift Dep Algal Mand Iron Dep Surface Inundation Sparsely Field Observ	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Concurations: er Present?	al Imagery (ave Surface	Wa Sal Aqu Hyc Oxi Pre Rec Stu Oth e (B8) No X E No X E No X E C No X E C C C C C C C C C	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress aer (Explain in	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capaci	i) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	S6	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season Wa Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required
Poepth (inches demarks: Comparison Comp	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Concurations: er Present? Present? Viesent? Viesent?	al Imagery (ave Surface	Wa Sal Aqu Hyo Oxi Pre Stu Oth e (B8) No	MLRA 1, 2, 4A t Crust (B11) uatic Invertebre drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress her (Explain in Depth (inches) Depth (inches)	and 4B) rates (B13 rat	i) (except) 1) 1) png Living (C4) Plowed So s (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral To Raised Ant Moo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required
Depth (inches Remarks: Remarks: RYDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water table P Saturation Pre (includes capi	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Conce vations: er Present? Present? Yesent?	al Imagery (ave Surface	Wa Sal Aqu Hyo Oxi Pre Stu Oth e (B8) No	MLRA 1, 2, 4A t Crust (B11) uatic Invertebre drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress her (Explain in Depth (inches) Depth (inches)	and 4B) rates (B13 rat	i) (except) 1) 1) png Living (C4) Plowed So s (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral To Raised Ant Moo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required
Depth (inches Remarks: Remarks: RYDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water table P Saturation Pre (includes capi	drology Indicators ators (any one ind Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeric y Vegetated Concurations: er Present? Present? Viesent? Viesent?	al Imagery (ave Surface	Wa Sal Aqu Hyo Oxi Pre Stu Oth e (B8) No	MLRA 1, 2, 4A t Crust (B11) uatic Invertebre drogen Sulfide dized Rhizosp sence of Red cent Iron Redu nted or Stress her (Explain in Depth (inches) Depth (inches)	and 4B) rates (B13 rat	i) (except) 1) 1) png Living (C4) Plowed So s (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral To Raised Ant Moo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required

Project/Site:	Plas Newydd Fari	n		City/County	: Clark Cour	nty			Sam	npling Date: _	5/1/2014
Applicant/Owner:	Plas Newydd Farr	n					State:	WA	Sam	npling Point:	26
Investigator(s):	B. Haddaway, T.S	Stout		Sectio	n, Township	, Range:	S2, T4	N, R1W			
Landform (hillslop	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex					(%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	s and Coast (LRR A) Lat:	45.850967	•			122.77460			atum: WGS 84
Soil Map Unit Nan		loam, sandy substra						ssification			
Are climatic / hydr	-	the site typical for t			_					explain in Ren	
Are Vegetation		, or Hydrology									<no< th=""></no<>
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers i	n Remarks.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, t	ransed	cts, impo	ortant f	eatures, et	c.
Hydrophytic Vege	tation Present?	YesNo	X								
Hydric Soil Preser		Yes No	X		ampled Are a Wetland?		Yes		No X		
Wetland Hydrolog	y Present?	Yes No	X	Within	a welland:						
Remarks:	-	<u> </u>									
VEGETATION											
Tree Stratum (U	se scientific names	.)	Absolute % Cover	Dominant Species?	Indicator Status?			st workshe inant Spec			
Populus balsa	amifera		80	Υ	FAC	That Are	OBL, F	ACW, or F	AC:	1	(A)
2.						Total Nu	ımber of	Dominant			 -
3						Species	Across	All Strata:	_	3	(B)
4						Percent	of Domi	nant Speci	es		
		Total Cover:	80			That Are	OBL, F	ACW, or F	AC:	33%	(A/B)
Shrub Stratum			_		E40			ex Worksh	neet:		
1. Populus balsa			5		FACU	-	al % Co			Multiply by	<u>:</u>
 Rubus armeni 3. 	iacus		40	Y	FACO	OBL spe				0	
4.						FAC spe	-			0	
5.											
		Total Cover:	45	-	-	UPL spe			x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. <u>Senecio jacob</u>	paea		20		FACU			dex = B/A =		#DIV/0!	
2. Stellaria medi	a		60	Υ	FACU						
3. Daucus carota	a		5		FACU	Hydrop	hytic Ve	getation I	ndicator	s:	
4. Glechoma hed			15		FACU					nytic Vegetation	on
5. <u>Lapsana com</u>	munis		5	-	FACU			ninance Te			
						#####		valence Inc			
•									•	ion1 (Provide	
					·					eparate sheet	i)
4.0								tland Non-		PlantS2 /egetation ¹ (E	(volcin)
10. 11.							Problei	nauc nyun	opriyuc v	/egetation (⊏	хріаііт)
11.		Total Cover:	105								
Woody Vine S	Stratum	10101 00101.				1Indicate	ors of hy	dric soil an	d wetlan	d hydrology m	nust
1.	- Carana							ss disturbe			idot
2.		•				المراجات	hyd:a		· ·		
		Total Cover:	0		-	Hydrop Vegetat					
% Ba	are Ground in Herb			otic Crust	0	Present			Yes	No 2	Κ
Remarks:						<u> </u>					
i											

SOIL								Sampling Poir	nt:	26
Profile De	escription: (Describe	to the dep	oth needed to doo	ument th	ne indicator	or conf	firm the absence	ce of indicators.)		
Depth	Matrix		Re	dox Feat	ures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	_	Remarks	
0-2	10 YR 3/1	100					SANDY LOAM	<u> </u>		
2-16	10 YR 4/2	100			. <u> </u>		SAND	_		
								_		
	_							_		
								_		
					· -			_		
								_		
1- 0			5		· —— -		2	. 5. 5		
Type: C=	Concentration, D=Dep	oletion, RM	=Reduced Matrix,	CS=Cove	ered or Coat	ed Sand	Grains. Loca	tion: PL=Pore Lini	ng, M=Matrix.	
Hydric So	oil Indicators: (Applic	able to all	LRRs, unless oth	nerwise r	noted.)		Indicators fo	r Problematic Hyd	dric Soils ³ :	
Histo	osol (A1)		Sandy	Redox (S	5)			2 cm Muck (A10	0)	
Histic	c Epipedon (A2)		Strippe	d Matrix (S6)		_	Red Parent Mat	erial (TF2)	
Black	k Histic (A3)		Loamy	Mucky M	ineral (F1) (except l	MLRA 1)	Other (Explain i	n Remarks)	
Hydro	ogen Sulfide (A4)		Loamy	Gleyed M	latrix (F2)			_		
Deple	eted Below Dark Surfa	ce (A11)	Deplete	ed Matrix	(F3)					
Thick	k Dark Surface (A12)		Redox	Dark Surf	face (F6)		³ Indicato	ors of hydrophytic v	egetation and	
Sand	dy Muck Mineral (S2)		Deplete	ed Dark S	urface (F7)		wetlar	nd hydrology must	be present,	
Sand	dy gleyed Matrix (S4)		Redox	Depression	ons (F8)		unle	ess disturbed or pro	blematic.	
Restrictiv	e Layer (if present):									
Type:										
Depth (inc	hes):					Ну	dric Soil Prese	nt? Y	es	No X
Remarks:										
HYDROLOG	ey.									
	Hydrology Indicators:									
	dicators (any one indic		icient)					Secondary Indica	ators (2 or more	e required)
	ace Water (A1)		,	Stained L	eaves (B9) (except		Water-Stained L		
	Water Table (A2)				A and 4B)	•		- 4A and 4B)	()(, ,
	ration (A3)			ust (B11)	,			 Drainage Patter 	ns (B10)	
	er Marks (B1)				rates (B13)			_ Dry-Season Wa		
	ment Deposits (B2)		Hydrog	en Sulfide	e Odor (C1)			Saturation Visib		
Drift I	Deposits (B3)		Oxidize	d Rhizos	pheres along	Living	Roots (C3)	Geomorphic Po	sition (D2)	
Algal	Mat or Crust (B4)		Presen	ce of Rec	luced Iron (C	24)		Shallow Aquitar	d (D3)	
Iron [Deposits (B5)		Recent	Iron Red	uction in Plo	wed So	ils (C6)	FAC-Neutral Te	st (D5)	
Surfa	ace Soil Cracks (B6)		Stunted	or Stres	sed Plants (01) (LR	R A)	Raised Ant Mou	ınds (D6) (LRF	R A)
Inunc	dation Visible on Aerial	Imagery (F	37) Other (Explain in	Remarks)			Frost-Heave Hu	ımmocks (D7)	
Spars	sely Vegetated Concav	ve Surface	(B8)							
Field Obs	ervations:									
	/ater Present? Yes			n (inches)						
Water table Saturation	le Present? Yes Present? Yes			n (inches) n (inches)		_	Wetland Hydr	ology Present?	Yes	No X
	capillary fringe)	<u> </u>	No X Depti	i (iiiciies)	_	Wetland Hydr	ology i resent:	163	
	corded Data (stream g	auge, mon	itoring well, aerial	photos, p	revious insp	ections)	, if available:			
Damid										
Remarks:										

Project/Site:	Plas Newydd Farm			City/County:	Clark Cou	nty			Sampling I	Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling I	Point:	27
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S2, T41	N, R1W			
` .		Floodplain		_							
	Northwest Forests a				•		_		6°	_ Datum	: WGS 84
Soil Map Unit Nam		am, sandy substr						ssification:			
	ologic conditions on th				_		-		(If no, explain		
Are Vegetation	, Soil	_									_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, 1	ransec	ts, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen					ampled Are a Wetland?	а	Yes	Х	No		
Wetland Hydrology	y Present?)	WILLIIII	a vvetianu:		-				
Remarks:	-	' 									
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	et:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?	Number	of Domi	nant Specie	es		
1.	,					That Are	OBL, F	ACW, or FA	AC:	2	(A)
2.						Total Nu	ımber of	Dominant			
3.						Species	Across	All Strata:		2	(B)
4.						Percent	of Domii	nant Specie	es		_
		Total Cover:	0					ACW, or FA		100%	_(A/B)
Shrub Stratum						Prevale	nce Inde	ex Worksh	eet:		
1							tal % Co			Itiply by:	_
2.							-			0	_
3.									x2 =	0	_
4.						FAC spe	-		x3 =	0	
5		Total Covers				UPL spe			x4 =	0	_
Herb Stratum		Total Cover:					-	0	x5 =	0	(B)
1. Phalaris arund	dinacea		30	Υ	FACW		_	dex = B/A =			_(D)
Alopecurus pro			20	<u>'</u>	FAC	11044	icrioc inc	ick birt	#61	170.	_
Carex obnupta			5		OBL	Hvdrop	hvtic Ve	getation In	dicators:		
4. Agrostis capilla			40	Y	FAC	,		_	Hydrophytic V	egetation	
5. Ranunculus re			20		FAC	Х	•	ninance Tes			
6. Glechoma hed	deracea		20		FACU	#####	3 - Prev	valence Ind	ex is ≤3.0 ¹		
7.							4 - Mor	phological A	Adaptation1 (F	Provide supp	orting
8.							data in	Remarks o	r on a separat	e sheet)	
9.							5 - Wet	land Non-V	ascular Plant	S2	
10							Probler	natic Hydro	phytic Vegeta	tion¹ (Explai	n)
11											
		Total Cover:	135								
Woody Vine S	<u>stratum</u>								wetland hydr		
1						be prese	ent, unies	ss disturbed	d or problemat	IIC.	
2						Hydrop	•				
0/ 5	one Onescondin III de Or	Total Cover:			•	Vegetat			V V	NI-	
	re Ground in Herb Str	atum <u>0</u> %	Cover of Bi	otic Crust	0	Present			Yes X	No	
Remarks:											

Profile Des	scription: (Describe	to the de	pth needed to doc	ument th	e indicat	or or c	onfirm the abse	ence of indicate	ors.)	
Depth	Matrix		Red	dox Featu	ires					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc	Texture		Remarks	
0-3	10 YR 3/2	100					SILT LOAM			
3-10	10 YR 4/2	86	5 YR 3/3	10	С	M	LOAMY SA	_		
			5 YR 3/3	2	С	PL		_		
			10 YR 5/2	2	D	М		_		
10-16	10 YR 5/2	85	5 YR 3/3	10	C	M	SANDY LO	AM		
			7.5 YR 4/3	5	C	M				
			7.0 111 110		<u> </u>		_			
							_	_		
							_			
¹ Type: C=0	Concentration, D=Dep	letion, RN	N=Reduced Matrix,	S=Cove	red or Co	ated Sa	and Grains. ² Lo	cation: PL=Poi	e Lining, M=Matrix	
Hydric Soi	I Indicators: (Applic	able to a	III RRs unless oth	erwise n	oted)		Indicators	for Problemat	ic Hydric Soils ³ :	
=	sol (A1)	abic to a		Redox (S5	-		maicators	2 cm Muc	•	
							-			
	Epipedon (A2)			Matrix (S		. /	- (MI D A 4)		nt Material (TF2)	
	Histic (A3)			•	. ,	•	ot MLRA 1)	Other (Ex	plain in Remarks)	
	gen Sulfide (A4)			•	atrix (F2))				
	ted Below Dark Surface	ce (A11)		d Matrix (•		2			
	Dark Surface (A12)			Dark Surfa	, ,				nytic vegetation and	d
	/ Muck Mineral (S2)				urface (F7	7)			must be present,	
Sandy	gleyed Matrix (S4)		Redox [Depressio	ns (F8)		u	nless disturbed	or problematic.	
Restrictive	Layer (if present):									
Type:										
Depth (inch	ies):						Hydric Soil Pre	sent?	Yes X	No
Remarks:										
HYDROLOG										
Wetland H	ydrology Indicators:									
Primary Ind	licators (any one indic	ator is su	ficient)					Secondary	Indicators (2 or mo	re required)
	ce Water (A1)		Water-S	Stained Le	eaves (B9) (exce	pt _	Water-Sta	ined Leaves (B9) (MLRA 1, 2,
High \	Water Table (A2)		MLR	A 1, 2, 4A	and 4B)		_	4A and	1 4B)	
Satura	ation (A3)		Salt Cru	ıst (B11)			_	Drainage	Patterns (B10)	
Water	Marks (B1)		Aquatic	Invertebr	ates (B13	3)	_	Dry-Seaso	on Water Table (C2	2)
Sedim	nent Deposits (B2)		Hydroge	en Sulfide	Odor (C	1)	_	Saturation	Visible on Aerial Ir	magery (C9)
Drift D	Deposits (B3)		X Oxidize	d Rhizosp	heres alo	ng Livi	ng Roots (C3)	X Geomorph	nic Position (D2)	
	Mat or Crust (B4)				uced Iron	-			quitard (D3)	
	eposits (B5)						Soils (C6)		ral Test (D5)	
	ce Soil Cracks (B6)				ed Plants		` ′		nt Mounds (D6) (LR	RA)
	ation Visible on Aerial	Imagery			Remarks				ve Hummocks (D7)	
	ely Vegetated Concav		• •		rtemants	')	-	11031-1104	ve Hammooks (D7)	,
		Juliaci	, (00)							
Field Obse	ervations: ater Present? Yes		No X Depth	(inches):						
Water table				i (inches):						
Saturation I				(inches):			Wetland Hy	drology Prese	nt? Yes X	No
(includes ca	apillary fringe)									
Describe Rec	orded Data (stream g	auge, mo	nitoring well, aerial p	hotos, pr	evious ins	spection	ns), if available:			
Remarks:										
. tomanto.										

Project/Site:	Plas Newydd Farm			City/County:	Clark Cou	nty			Sampling	Date:	5/12/2014
Applicant/Owner:	Plas Newydd Farm						State: \	WA	Sampling	Point:	28
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37,	T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): <u> </u>	none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°			Long:	122.774606	S°	Datum	: WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam					NWI Clas	ssification:	PFOR		
Are climatic / hydro	ologic conditions on t	he site typical for t	his time of y	year?	Yes	X	No_		(If no, explain	n in Remark	s)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	Normal Ci	rcumstance	es" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	lain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transec	ts, impoi	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen		Yes X No)		ampled Are a Wetland?		Yes	X	No		
Wetland Hydrology)	Within	a wellanu?		_				
Remarks:	,	 -									
VEGETATION											
Tree Stratum (Us	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?			t worksheen ant Specie			
Fraxinus latifol	•		85	Y	FACW	That Ar	e OBL, FA	ACW, or FA	AC:	4	(A)
2.					·	Total N	umber of	Dominant			_` ′
3.						Species	Across A	All Strata:		4	(B)
4.						Percent	of Domin	nant Specie	s		_ ` `
		Total Cover:	85					ACW, or FA		100%	_(A/B)
Shrub Stratum						Prevale	ence Inde	x Workshe	et:		
Cornus alba			25	Υ	FACW		tal % Cov			Itiply by:	
2.						OBL sp	ecies			0	_
3.						FACW	species			0	_
4.						FAC sp	ecies		x3 =	0	_
5.						FACU s	pecies		x4 =	0	<u>-</u>
_		Total Cover:	25			UPL sp	ecies		x5 =	0	_
Herb Stratum						Column	Totals: _	0	(A)	0	_(B)
1. Phalaris arund	linacea		85	Υ	FACW	Preva	lence Ind	ex = B/A =	#DI	V/0!	_
2. Carex obnupta	9		25	Υ	OBL						
3				-		Hydrop	hytic Ve	getation In	dicators:		
4							1 - Rapi	d Test for I	Hydrophytic V	egetation	
5						X	2 - Dom	inance Tes	t is >50%		
6						#####	3 - Prev	alence Inde	ex is ≤3.0 ¹		
7							4 - Morp	hological A	Adaptation1 (F	Provide supp	orting
8							data in I	Remarks o	on a separat	te sheet)	
9							5 - Wetl	and Non-V	ascular Plant	S2	
10							Problem	natic Hydro	phytic Vegeta	ition¹ (Explai	n)
11				-							
		Total Cover:	110								
Woody Vine S 1.	<u>tratum</u>								wetland hydr or problemate		
2.						Hydrop	hytic				
		Total Cover:	0	-		Vegeta					
% Ba	re Ground in Herb St			otic Crust	0	Presen			Yes X	No	
Remarks:						1			-		

	scription: (Describe		pui necaca to aoc				minim the abse	shoc of indicators.
Depth	Matrix		Red	dox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture	Remarks
0-4	10 YR 4/2	90	10 YR 4/4	10	С	М	SILT LOAN	<u></u>
4-8	10 YR 4/1	85	5 YR 3/4	15	С	М	SILT LOAN	
8-16	10 YR 4/1	75	10 YR 5/1	5	D	М	SILT LOAN	
			5 YR 5/4	15	C	M		· <u> </u>
			5 YR 5/4	5	C	PL		
			0 1110/1		<u> </u>	<u></u>		
								
	-						_	
							_	<u> </u>
¹ Type: C=C	Concentration, D=Dep	letion, RM	1=Reduced Matrix, (CS=Cove	red or Coa	ted Sar	nd Grains. ² Lc	ocation: PL=Pore Lining, M=Matrix.
Hydric Soil	I Indicators: (Applic	ahle to al	II PPs unless oth	arwisa n	oted)		Indicators	for Problematic Hydric Soils ³ :
-	sol (A1)	able to al		Redox (S5	-		mulcators	2 cm Muck (A10)
				Matrix (S			•	Red Parent Material (TF2)
	Epipedon (A2)					/	t MLRA 1)	
	Histic (A3)			•	, ,	(excep	t WLKA I)	Other (Explain in Remarks)
	gen Sulfide (A4)	(8.4.4)		-	atrix (F2)			
	ted Below Dark Surfac	e (A11)		d Matrix (3, ,,	
	Dark Surface (A12)			Dark Surfa				ators of hydrophytic vegetation and
	/ Muck Mineral (S2)				ırface (F7))		tland hydrology must be present,
	gleyed Matrix (S4)		Redox [Depressio	ns (F8)		u	nless disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (inch	nes):					H	lydric Soil Pre	sent? Yes X No
Remarks:								
HYDROLOG	Υ							
Wetland Hy	ydrology Indicators:							
Primary Ind	licators (any one indica	ator is suf	ficient)					
Surfac	ce Water (A1)							Secondary Indicators (2 or more required)
	Nater Table (A2)		Water-S	Stained Le	aves (B9)	(excep	ot	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
					eaves (B9)	(excep	ot .	Water-Stained Leaves (B9) (MLRA 1, 2,
	ation (A3)		MLR.	A 1, 2, 4A	eaves (B9) and 4B)	(excep	 ot	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
	ation (A3) · Marks (B1)		MLR Salt Cru	A 1, 2, 4A st (B11)	and 4B)		ot .	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10)
Water	Marks (B1)		MLR/ Salt Cru Aquatic	A 1, 2, 4A st (B11) Invertebra	and 4B) ates (B13)		 ot	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Water Sedim	Marks (B1) nent Deposits (B2)		MLR/ Salt Cru Aquatic Hydroge	A 1, 2, 4A est (B11) Invertebra en Sulfide	and 4B) ates (B13) Odor (C1)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Water Sedim Drift D	Marks (B1) nent Deposits (B2) Deposits (B3)		MLR. Salt Cru Aquatic Hydroge X Oxidizer	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp	and 4B) ates (B13) Odor (C1 heres alor) ng Livin		Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2)
Water Sedim Drift D Algal I	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		MLR. Salt Cru Aquatic Hydroge X Oxidized	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp de of Redu	and 4B) ates (B13) Odor (C1 heres alor) ng Livin (C4)	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3)
Water Sedim Drift D Algal I	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		MLR. Salt Cru Aquatic Hydroge X Oxidize Presend Recent	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp de of Redu Iron Redu	and 4B) ates (B13) Odor (C1 heres alor uced Iron (ng Livin (C4) lowed S	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5)
Water Sedim Drift D Algal I Iron D Surface	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B6)		MLR. Salt Cru Aquatic Hydroge X Oxidizer Presend Recent Stunted	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	and 4B) ates (B13) Odor (C1) heres alor uced Iron of action in Pl ed Plants) ng Livin (C4) lowed S (D1) (L	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Sedim Drift D Algal I Iron D Surfac	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerial		MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted B7) Other (E	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	and 4B) ates (B13) Odor (C1 heres alor uced Iron () ng Livin (C4) lowed S (D1) (L	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5)
Water Sedim Drift D Algal I Iron D Surfac	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B6)		MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted B7) Other (E	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	and 4B) ates (B13) Odor (C1) heres alor uced Iron of action in Pl ed Plants) ng Livin (C4) lowed S (D1) (L	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLRA Salt Cru Aquatic Hydroge X Oxidized Presend Recent Stunted (B7) Other (B	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presend Recent Stunted Other (E	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ng Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizee Presence Recent Stunted Other (E	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu fron Redu or Stress explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig 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) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation I	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizee Presence Recent Stunted Other (E	A 1, 2, 4A ast (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig 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) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation I (includes ca	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted Other (E	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig Roots (C3) Goils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca Describe Rec	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted Other (E	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig Roots (C3) Goils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation I (includes ca	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted Other (E	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig Roots (C3) Goils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca Describe Rec	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted Other (E	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig Roots (C3) Goils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Water Sedim Drift D Algal I Iron D Surfac Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca Describe Rec	Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (e Surface	MLR. Salt Cru Aquatic Hydroge X Oxidizer Presence Recent Stunted Other (E	A 1, 2, 4A est (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress Explain in (inches):	and 4B) ates (B13) Odor (C1 heres alor uced Iron (action in Pl ed Plants Remarks)) ng Livin (C4) lowed S (D1) (L	ig Roots (C3) Goils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) Shallow Aquitard (D3) X FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Plas Newydd Farm		City/County:	: Clark Cou	nty	Sampling Dat	e: 5/12/20
Applicant/Owner: Plas Newydd Farm				State: WA	Sampling Poil	nt:
nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: <u>DLC37, T4N, R1V</u>	V	
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concav	e, convex, none): none	SI	ope (%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR	A) Lat:	45.850967°	•	Long: 122.77460)6°	Datum: WGS 84
oil Map Unit Name: Sauvie silty clay loam				NWI Classification:	PFOR	
are climatic / hydrologic conditions on the site typical for	this time of	/ear?	Yes	X No	(If no, explain in	Remarks)
re Vegetation, Soil, or Hydrology		significantly	/ disturbed?	Are "Normal Circumstand	ces" Present? Ye	es <u>X</u> No
re Vegetation, Soil, or Hydrology		naturally pr	oblematic?	(If needed, explain any a	nswers in Remark	s.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loc	ations, transects, impo	ortant features	, etc.
lydrophytic Vegetation Present? Yes X N	No					
	4o		ampled Are a Wetland?		No	
· —	10 	within a	a wetiand?			
Remarks:						
/EGETATION	Absolute	Dominant	Indicator	Dominance Test workshe	not.	
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Spec	ies	
. Fraxinus latifolia	75	Υ	FACW	That Are OBL, FACW, or F	·AC:2	(A)
·				Total Number of Dominant		
				Species Across All Strata:	2	(B)
				Percent of Dominant Speci	ies	
Total Cove	er: <u>75</u>			That Are OBL, FACW, or F	AC: 100	<u>%</u> (A/B)
No. 1. Otrat				D		
Shrub Stratum				Prevalence Index Worksh		u bur
·				Total % Cover of: OBL species	$_{x1} = \frac{Multipl}{0}$	
·				FACW species	x2 = 0	
·				FAC species	x3 = 0	
· .			· ———	FACU species	x4 = 0	
Total Cove	er: 0		·	UPL species	x5 = 0	
lerb Stratum				Column Totals: 0	(A) 0	(B)
. Phalaris arundinacea	85	Υ	FACW	Prevalence Index = B/A =	#DIV/0	
•				Hydrophytic Vegetation I	ndicators:	
				1 - Rapid Test for	Hydrophytic Vege	tation
				X 2 - Dominance Te		
				##### 3 - Prevalence Inc	dex is ≤3.0 ¹	
				4 - Morphological	Adaptation1 (Prov	vide supporting
				data in Remarks	or on a separate s	heet)
				5 - Wetland Non-		
0				Problematic Hydro	ophytic Vegetation	¹ (Explain)
1.						
				1		
Total Cove	er: 85			to the all and a second file of the second as a	at the state of the state of the	av must
Total Cove				¹ Indicators of hydric soil an		gy maor
Total Cove Woody Vine Stratum				be present, unless disturbe		gyaot
Total Cove Woody Vine Stratum				be present, unless disturbe		
Total Cove	er: 0			be present, unless disturbe	d or problematic.	No

SOIL

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

Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Sandy Redox (S5) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Redox Dark Surface (F7) wetlar Redox Depressions (F8) unle Restrictive Layer (if present): Type: Depth (inches): Emarks:	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
10 YR 4/2	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Locat Mydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sendy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Bedox Dark Surface (F6) Sandy Muck Mineral (S2) Sandy Bedox Dark Surface (F7) Wettar Sandy Bedox Dark Surface (F7) Wettar Sandy Bedox Dark Surface (F8) Sandy Muck Mineral (S2) Sandy Bedox Depressions (F8) Unle Restrictive Layer (if present): Supper:	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Locate ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Histosol (A1) Sandy Redox (S5) Indicators for Histosol (A2) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (F2) Sandy Mucky Mineral (F1) (except MLRA 1) Sepleted Below Dark Surface (A11) Sepleted Matrix (F3) Sepleted Below Dark Surface (A12) Redox Dark Surface (F6) Sendy Mucky Mineral (S2) Sendy Mucky Mineral (S2) Sendy Mucky Mineral (S2) Sendy Below Dark Surface (F7) Wetlar Sendy Below Dark (S4) Redox Depressions (F8) Unle estrictive Layer (if present): September 10 YR 6/1 Sequence of Coated Sand Grains. ² Locate visual Sends of Capacita	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) 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 (S2) Sandy Muck Mineral (S2) Sandy Beyed Matrix (S4) Redox Dark Surface (F7) wetlar Sandy gleyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present): ype: epth (inches): Hydric Soil Present) DROLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (F2) Sandy Muck Mineral (F3) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Below Dark Surface (F7) Redox Dark Surface (F7) wetlar Sandy gleyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present): pe: arks: RROLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Adric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Bedox (B5) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Sandy Muck Mineral (S2) Sandy Bedox Depressions (F8) unle extrictive Layer (if present): per spth (inches): Hydric Soil Present BROLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Sandy Muck Mineral (F1) (except MLRA 1) Hold Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Below Dark Surface (F7) Redox Dark Surface (F7) wetlar Sandy Below Dark Surface (F8) Indicators for Sandy Redox (S5) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Sandy Muck Mineral (S2) Redox Depressions (F8) unle estrictive Layer (if present): //Pe: epth (inches): Hydric Soil Present DROLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Stripped Matrix (F3) Depleted Matrix (F3) Redox Dark Surface (F6) Sandy Muck Mineral (S2) Sandy Beyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present): ype: epth (inches): DROLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Sandy Muck Mineral (F1) (except MLRA 1) Horic Dark Surface (A12) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Muck Mineral (S2) Sandy Beyed Matrix (S4) Redox Dark Surface (F7) wetlar Sandy Beyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present): ype: epth (inches): BROKOLOGY	Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (F1) (except MLRA 1) Loamy Mucky Mineral (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Sandy Muck Mineral (S2) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Wetlar Redox Depressions (F8) unle estrictive Layer (if present): ype: epth (inches): Hydric Soil Present DROLOGY	2 cm Muck (A10) Red Parent Material (TF2) Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Pestrictive Layer (if present): Apperature of the following striction of the stricti	Red Parent Material (TF2) Other (Explain in Remarks) ors of hydrophytic vegetation and and hydrology must be present, ass disturbed or problematic.
Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Estrictive Layer (if present): pe: peth (inches): Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Pepleted Dark Surface (F7) Redox Depressions (F8) Unleast Control of the present of	Other (Explain in Remarks) rs of hydrophytic vegetation and hydrology must be present, ss disturbed or problematic.
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) unle estrictive Layer (if present): pe: ppth (inches): Hydric Soil Present BROLOGY	rs of hydrophytic vegetation and and and hydrology must be present, as disturbed or problematic.
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Pestrictive Layer (if present): pet pet pet pet sarks: PROLOGY Depleted Matrix (F3) Redox Dark Surface (F6) Redox Depressions (F8) unle Hydric Soil Present A pet pet pet pet pet pet pet pet pet pet	nd hydrology must be present, ss disturbed or problematic.
Thick Dark Surface (A12) Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Pedax Depressions (F8) Unle estrictive Layer (if present): pe: ppth (inches): Arks: Redox Dark Surface (F6) Redox Depressions (F8) Unle estrictive Layer (if present): Hydric Soil Present ROLOGY	nd hydrology must be present, ss disturbed or problematic.
Sandy Muck Mineral (S2) Sandy gleyed Matrix (S4) Pedox Depressions (F8) Unle estrictive Layer (if present): Type: Pepth (inches): Pepth (sinches):	nd hydrology must be present, ss disturbed or problematic.
Sandy gleyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present): pe: ppth (inches): BROLOGY Redox Depressions (F8) Hydric Soil Present Redox Depressions (F8) Hydric Soil Present Redox Depressions (F8) Hydric Soil Present Redox Depressions (F8)	ss disturbed or problematic.
estrictive Layer (if present): pe: ppth (inches): parks: PROLOGY	·
pre: epth (inches): marks: PROLOGY Hydric Soil Preserved Hydric	nt? Yes <u>X</u> No
epth (inches): Hydric Soil Preser	nt? Yes X No
DROLOGY	nt? Yes <u>X</u> No
DROLOGY	
/etland Hydrology Indicators:	
rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more require
Surface Water (A1) Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2
High Water Table (A2) MLRA 1, 2, 4A and 4B)	- 4A and 4B)
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 (C
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X	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)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	<u> </u>
eld Observations:	
urface Water Present? Yes No X Depth (inches):	
/ater table Present? Yes No X Depth (inches):	
aturation Present? Yes No X Depth (inches): Wetland Hydro	ology Present? Yes X No
aturation Present? Yes No X Depth (inches): Wetland Hydroncludes capillary fringe)	ology Present? Yes X No
· ` ` <u></u>	ology Present? Yes <u>X</u> No

Project/Site:	Plas Newydd Far	m		City/County:	: Clark Cour	nty			Sam	pling Date:	5/22/2014
Applicant/Owner:	Plas Newydd Far	m					State:	WA	Sam	pling Point:	30
Investigator(s):	B. Haddaway, T.	Stout		Section	n, Township	, Range:	S2, T4	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none):	none		Slope (%): <u>0-1%</u>
Subregion (LRR):	Northwest Forest	s and Coast (LRR A) Lat:	45.850967°	•		Long:	122.77460	3°	Datur	n: WGS 84
Soil Map Unit Nam	ne: Sauvie sil	t loam, sandy substra	atum			<u>.</u>	NWI Cla	ssification:	none		
Are climatic / hydro	ologic conditions or	the site typical for t	his time of	/ear?	Yes 2	X	No		(If no, e	xplain in Remar	ks)
Are Vegetation	-	, or Hydrology			_						
Are Vegetation		, or Hydrology								Remarks.)	<u> </u>
-		Attach site map s						-			
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen			X		ampled Are		Yes		No X		
Wetland Hydrology				within	a Wetland?		•				
		ator criteria, but only ndicators demonstra			amifera, a F	AC tree s	pecies th	nat is ubiqui	tous in t	he Lower Colum	bia River
VEGETATION						ı					_
Tree Stratum (U:	se scientific names	·.)	Absolute % Cover	Dominant Species?	Indicator Status?			t worksheen nant Specie			
1. Populus balsa		,	60	Y	FAC	That Are	OBL, F	ACW, or FA	AC:	3	(A)
2. Fraxinus latifo			15		FACW	Total Nu	ımber of	Dominant			
3. Malus fusca			15		FACW	Species	Across	All Strata:		5	(B)
4.					· ———	Percent	of Domi	nant Specie	<u></u>		` ′
		Total Cover:	90					ACW, or FA		60%	(A/B)
Shrub Stratum						Provalo	nco Inde	ex Worksho	not:		
1. Rubus ursinus			20		FACU		al % Co			Multiply by:	
Rubus armenia			20		FACU	OBL spe			v1 -	Multiply by: 0	_
3. Cornus alba	acus		25		FACW					0	_
Symphoricarpo	oo albus		50		FACU	FAC spe				0	
 Symphonicarpo Rosa nutkana 					FAC						
5. Rosa Hulkana		Total Cover:	10 125		170	UPL spe			x4 = x5 =	0	_
Herb Stratum		Total Cover.	125					0		0	(B)
			2	Υ	OBL			dex = B/A =			(D)
Carex obnupta Polystichum m.				<u>'</u> Y	FACU	Fieva	ence mo	16X - D/Y -		#DIV/0:	_
3.	lamam			<u>'</u>		Hydron	hytic Va	getation In	dicators	••	
4.						riyarop	-	_		ytic Vegetation	
								ninance Tes		-	
								valence Ind			
7										.o on1 (Provide sup	porting
									•	eparate sheet)	porting
_								land Non-V		. ,	
-		<u> </u>								egetation ¹ (Expl	ain)
11.					· ——		FIODICI	nauc riyuro	priytic v	egetation (Expi	alii)
		Total Cover:	7								
Woody Vine S	tratum	Total Cover.				1 Indicate	va af by	dria aail and	watlana	l budrala au maua	
-	<u>traturri</u>							anc son and ss disturbed		d hydrology musi Jematic	Į.
1 2.								- Carolande	. J. PIOD	.cmado.	
<u> </u>		Total Carren				Hydrop					
0/ D-	ro Ground in Hart	Total Cover:			0	Vegetat Present			Voc V	Al-	
	re Ground in Herb	Suatum <u>U</u> %	Cover of BI	otic Crust	<u> </u>	Fresent	. f		Yes X	No	
Remarks:											

SOIL								Sampling Poi	nt:	30
Profile Des	scription: (Describe	to the de	pth needed to doo	ument th	e indicat	or or co	onfirm the absen	nce of indicators.)		
Depth	Matrix		Re	dox Featu			_			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
<u>0-8</u>	10 YR 3/2	100					LOAM			
8-16	10 YR 4/3	95	10 YR 5/2	5	D	M	SANDY LOA	<u></u>		
								_		
¹ Type: C=	 Concentration, D=Dep	letion. RN	/=Reduced Matrix.	CS=Cove	red or Co	ated Sa	and Grains. ² Loc	 ation: PL=Pore Lin	ing. M=Matrix	
	il Indicators: (Applic	able to a					Indicators fo	or Problematic Hy		
	sol (A1)			Redox (St				2 cm Muck (A1		
	Epipedon (A2)			d Matrix (\	ot MLRA 1)	Red Parent Ma		
	Histic (A3) ogen Sulfide (A4)			Gleyed M	•	•	TIWILKA I)	Other (Explain	in Remarks)	
	eted Below Dark Surfa	co (A11)		ed Matrix ()				
	Dark Surface (A12)	CE (ATT)		Dark Surf			³ Indicat	tors of hydrophytic	vegetation and	4
	y Muck Mineral (S2)			ed Dark Si		7)		and hydrology must	=	4
	y gleyed Matrix (S4)			Depression Depression		')		less disturbed or pr		
	e Layer (if present):				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			ioco dictarbod or pr	obioinatio.	
	Layer (ii present).									
Type: Depth (inch	nes):						Hydric Soil Pres	ent?	res .	No X
Remarks:	· 									
LIV/DD 01 0.0										
HYDROLOG Wetland H	lydrology Indicators:									
	dicators (any one indic		fficient)					Secondary Indic	ators (2 or mo	re required)
	ce Water (A1)	ator 15 Su		Stained Le	Paves (RO)) (AYCA	unt	Water-Stained		
	Water Table (A2)			A 1, 2, 4A	•	, ,		4A and 4B)	LCaves (DS) (WEIGH 1, 2,
	ation (A3)			ust (B11)	t dild 4B,	'		Drainage Patte	rns (B10)	
	r Marks (B1)			: Invertebr	ates (B13	3)		Dry-Season Wa		')
	nent Deposits (B2)			en Sulfide	•	•		Saturation Visit		
	Deposits (B3)						ng Roots (C3)	Geomorphic Po		
	Mat or Crust (B4)			ce of Red		-		Shallow Aquita		
	Deposits (B5)						Soils (C6)	FAC-Neutral Te		
	ce Soil Cracks (B6)			d or Stress				Raised Ant Mo	. ,	(RA)
	lation Visible on Aerial	Imagery		Explain in			_	Frost-Heave H		
	sely Vegetated Concav	• •	· / ·	·		,			,	,
Field Obse			<u> </u>							
	ater Present? Yes	s	No X Dept	h (inches)	: <u></u>					
Water table				h (inches)						
Saturation (includes c	Present? Yes apillary fringe)	·	No X Dept	h (inches)	:		Wetland Hyd	rology Present?	Yes	No <u>X</u>
	corded Data (stream g	auge. mo	nitoring well. aerial	photos, pr	evious in	spection	ns). if available:			
		- 5 - ,	J,	,, p.		r	,,			
Remarks:										

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)	Project/Site:	Plas Newydd Farr	n		City/County	: Clark Cour	nty			Sam	pling Date:	5/22/2014
Landborn Millalope, turrace, etc. Floodpiein Landborn Millalope, turrace, etc. Floodpiein Landborn Millalope, turrace, etc. Floodpiein Landborn Landborn Millalope Landborn Landborn Millalope Landborn Landborn Millalope	Applicant/Owner:	Plas Newydd Farr	m					State:	WA	Sam	pling Point:	31
Submission Communication	Investigator(s):	B. Haddaway, T.S	Stout		Sectio	n, Township	, Range:	S2, T4I	N, R1W	_		
Submitted Northwest Forests and Coase Like A 1.4 45.850867" Northwest Forests and Coase Like A 1.4 45.850867" Northwest Nort	Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none):	none		Slope ((%): 0-1%
Sol Map Unit Name	Subregion (LRR):	Northwest Forests	s and Coast (LRR A) Lat:	_					6°		·
Acc climate it hydrologic conditions on the site bytecal for this time of year? Yes X	•											
Soli	•				/ear?							arks)
Soli		-				_						
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.	•											140
Second Procent? Yes X No Wetland Hydrology Present?	-								•			; .
Second Procent? Yes X No Wetland Hydrology Present?	Hydrophytic Veget	ation Present?	Yes X No	,								
VEGETATION								Yes	Χ	No		
VEGETATION	1				within	a Wetland?		•		_		
VEGETATION	-	y i icaciit:	103 <u>X</u> NO									
Absolute Species Status Indicator Status Stat	VEGETATION											
Trace Stratum Use scientific names.) % Cover Species Status? Number of Dominant Species That Are OBL, FACW, or FAC: 5	VEGETATION				.		Damin a	T	.4	-4-		
Popular Selection Fallers Popular Selection Fallers												
Propuls balsaminera	Tree Stratum (U	se scientific names	.)	% Cover	Species?				•			
Malus fusca 25 Y	1. Populus balsa	mifera				FAC	mat Are	OBL, F	ACW, OF F	AC	5	(A)
Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)	2. Fraxinus latifo	lia		45	Y	FACW						
Total Cover: 90 That Are OBL, FACW, or FAC: 83% (A/B)	3. Malus fusca			25	Υ	FACW	Species	Across	All Strata:		6	(B)
Shrub Stratum	4						Percent	of Domi	nant Speci	es		
1. Symphoricarpos albus 66 Y FACU 70tal % Cover of: Multiply by: 2. Rubus ameniacus 20 FACU 70tal % Cover of: Multiply by: 3. Rubus leucodemis 20 FACU 70tal % Cover of: Multiply by: 4. Rosa nutkana 5 FAC 70tal % Cover of: Multiply by: 5. Comus alba 5 FACU 70tal % Cover of: Multiply by: 7. Total Cover: 130 FACU 8 pecies x3 = 0 FACU 8 pecies x3 = 0 FACU 8 pecies x3 = 0 FACU 9 pecies x5			Total Cover:	90			That Are	OBL, F	ACW, or F	AC:	83%	(A/B)
1. Symphoricarpos albus 66 Y FACU 70tal % Cover of: Multiply by: 2. Rubus ameniacus 20 FACU 70tal % Cover of: Multiply by: 3. Rubus leucodemis 20 FACU 70tal % Cover of: Multiply by: 4. Rosa nutkana 5 FAC 70tal % Cover of: Multiply by: 5. Comus alba 5 FACU 70tal % Cover of: Multiply by: 7. Total Cover: 130 FACU 8 pecies x3 = 0 FACU 8 pecies x3 = 0 FACU 8 pecies x3 = 0 FACU 9 pecies x5												
2. Rubus armeniacus 5	Shrub Stratum						Prevale	nce Inde	ex Worksh	eet:		
Section Sec				65	Υ		Tot				Multiply by:	
A.		acus		5								
Social Services S		ermis		20			FACW s				0	
Merb Stratum							FAC spe	ecies		_x3 =		
Column Totals: D	5. <u>Cornus alba</u>			35	Y	FACW	FACU s	pecies		_x4 =	0	
1. Carex obnupta 1. Carex obnupta 2. Salary			Total Cover:	130						x5 =	0	
2	Herb Stratum						Column	Totals:	0	(A)	0	(B)
3.	1. Carex obnupta	9		10	Y	OBL	Preva	ence Ind	dex = B/A =	·	#DIV/0!	
4	2											
X 2 - Dominance Test is >50% #### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 9 -	3						Hydrop	hytic Ve	getation Ir	dicator	s:	
6. ##### 3 - Prevalence Index is ≤3.0¹ 7. 4 - Morphological Adaptation1 (Provide supporting 8. data in Remarks or on a separate sheet) 9. 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Voody Vine Stratum 1. Voody Vine Stratum 1. Total Cover: 10 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2. Hydrophytic Vegetation 7 Vegetation 8 Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	4							1 - Rap	oid Test for	Hydroph	ıytic Vegetatioı	n
7. 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 8. data in Remarks or on a separate sheet) 9. 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation (Explain) 11. Voody Vine Stratum 12. Voody Vine Stratum Total Cover: 10 Woody Vine Stratum Total Cover: 0 Warren Forman Cover: 0 Warren Forman Cover: 0 Warren Forman Cover: 0 Warren Forman Cover: 0 Warren Forman Cover: 0 Wegetation Present? Yes X No	5						X	2 - Don	ninance Te	st is >50	0%	
8. data in Remarks or on a separate sheet) 9. 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Total Cover: 10 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2. Total Cover: 0 Hydrophytic Vegetation **No Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	6						#####	3 - Pre	valence Inc	lexis ≤3	3.0 ¹	
9	7							4 - Mor	phological	Adaptati	on1 (Provide s	supporting
10	8							data in	Remarks of	or on a s	eparate sheet)	
Total Cover: 10 Woody Vine Stratum 1. Total Cover: 0 Total Cover: 0 Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Total Cover: 0 Present? Yes X No No	9							5 - Wet	tland Non-\	/ascular	PlantS2	
Total Cover: 10 Woody Vine Stratum 1. Total Cover: 0 Woody Vine Stratum Total Cover: 0 Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Total Cover: 0 Present? Yes X No No	10							Probler	matic Hydro	phytic V	egetation¹ (Ex	rplain)
Woody Vine Stratum	11											
1			Total Cover:	10								
2. Total Cover:0	Woody Vine S	tratum_					1Indicate	ors of hy	dric soil and	d wetlan	d hydrology mi	ust
Total Cover: 0 Vegetation % Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	1						be prese	ent, unle	ss disturbe	d or prob	olematic.	
Total Cover: 0 Vegetation % Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No	2.						Hydron	hvtic				
% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0 Present? Yes X No No			Total Cover:	0								
	% Ba	re Ground in Herb	Stratum _ 0 %	Cover of Bi	otic Crust	0				Yes X	No	
	Remarks:						1					

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Loc² Texture (inches) Color (moist) Color (moist) Type¹ Remarks 0-4 10 YR 3/2 100 LOAM 4-7 10 YR 3/2 90 10 YR 4/4 10 SANDY LOAM 10 YR 4/2 70 10 YR 4/4 30 C 7-16 LOAMY SAND ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) 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) ³Indicators of hydrophytic vegetation and Sandy Muck Mineral (S2) 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Χ Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site:	Plas Newydd Farr	n		City/County	Clark Cou	nty			San	npling Date	:	5/1/2014
Applicant/Owner:	Plas Newydd Farr	n					State:	WA	San	npling Poin	t:	32
Investigator(s):	B. Haddaway, T.S	tout		Sectio	n, Township	, Range:	S2, T4I	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slc	pe (%):	0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967			Long:	122.77460)6°		Datum	: WGS 84
Soil Map Unit Nam								ssification:	R1USI	₹		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes _	X	No		_(If no,	explain in F	Remark	3)
Are Vegetation		, or Hydrology					ormal C	ircumstand	es" Pre	sent? Ye	s <u>X</u>	_No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ai	nswers i	n Remarks	.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	rtant f	eatures,	etc.	
Hydrophytic Veget	tation Present?	Yes X No)									
Hydric Soil Preser		Yes X No)		ampled Are a Wetland?		Yes	Χ	No			
Wetland Hydrolog	y Present?	Yes X No		WILIIII	a wellanu:		,					
Remarks: Within M	Mosaic polygon											
VEGETATION												
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshe	et:			
Tree Stratum (U	se scientific names.)	% Cover	Species?	Status?			nant Spec				
1. Fraxinus latifo	lia		30	Υ	FACW	That Are	OBL, F	ACW, or F	AC:	5		(A)
2. <u>Populus balsa</u>	mifera		20	Υ	FAC			Dominant				
3						Species	Across	All Strata:	_	5		_(B)
4								nant Speci				
		Total Cover:	50			That Are	OBL, F	ACW, or F	AC: _	100%	6	_(A/B)
						B		. 147 . 1 . 1	4			
Shrub Stratum	_		0.04		FACU			ex Worksh	ieet:	N de eldiente	h	
 Rubus ursinus Spiraea dougl 			0.01	Y	FACW	OBL spe	al % Co			Multiply 0	by:	_
3.	asii				TAOW							_
4.		_				FAC spe	-			0		_
5.					·							_
		Total Cover:	30.01		·	UPL spe			x5 =	0		_
Herb Stratum						Column	Totals:	0	(A)	0		(B)
1. Phalaris arund	dinacea		65	Υ	FACW	Preva	ence Ind	dex = B/A =		#DIV/0!		_ _
2. Carex obnupta	а		45	Υ	OBL							
3. Carex rostrata	1		0.01		OBL	Hydrop	hytic Ve	getation Ir	ndicato	rs:		
4										hytic Veget	ation	
5						X		ninance Te				
						#####		valence Inc				
					·				•	ion1 (Provi		orting
										eparate sh	eet)	
								tland Non-\			/E	
							Probler	natic Hydro	opnytic	/egetation ¹	(Explai	n)
11		Total Cover:	110.01									
Woody Vine S	Stratum	Total Cover.	110.01			1Indicate	re of hw	dric soil an	d watlar	nd hydrolog	v muet	
1.	Juan							ss disturbe			y must	
2.												
		Total Cover:	0			Hydrop Vegetat						
% Ba	re Ground in Herb S		Cover of Bi		0	Present			Yes X	N	o	
Remarks:						1						
Ī												

Depth	Matrix			110	dox Featu			_				
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Texture	<u> </u>		Remarks	
0-2	10 YR 3/2	90	10 YR	4/3	10	С	М	LOAM				
2-9	10 YR 4/2	85	10 YR	4/4	10	С	М	LOAMY S	AND			
			10 YR	5/1	5	D	М	_				
9-16	10 YR 4/1	80	10 YR	4/3	20	С	М	SAND				
								_				
¹ Type: C=C	oncentration, D=De	epletion, RM	M=Reduc	ced Matrix,	CS=Cove	red or Co	ated Sa	nd Grains. ² Lo	ocation:	PL=Pore Lini	ing, M=Matrix.	
Hydric Soil	Indicators: (Appl	icable to a	II LRRs,	unless oth	nerwise n	oted.)		Indicators		blematic Hyd		
Histoso			_	Sandy I	Redox (S5	5)				cm Muck (A10		
Histic E	Epipedon (A2)		_	Strippe	d Matrix (S	S6)				ed Parent Mat		
	Histic (A3)		_		-			MLRA 1)	01	her (Explain i	n Remarks)	
	gen Sulfide (A4)		_		Gleyed M)					
C Deplete	ed Below Dark Surf	ace (A11)	_		ed Matrix (. ,		_				
	Dark Surface (A12)		_		Dark Surfa	` '					egetation and	
Sandy	Muck Mineral (S2)		_		d Dark Su		7)		•	drology must	•	
	gleyed Matrix (S4)			Redox	Depressio	ons (F8)		ι	ınless di	sturbed or pro	oblematic.	
Restrictive	Layer (if present):											
Depth (inche	es):						ŀ	lydric Soil Pre	esent?	Y	<u>/es_X</u>	No
Depth (inchermarks:	,						ŀ	lydric Soil Pre	esent?	Y	<u>/es X</u>	No
Depth (inche marks: DROLOGY Vetland Hy	, drology Indicator:						<u> </u>	lydric Soil Pre				
Depth (inchestance) DROLOGY Wetland Hy Primary India	rdrology Indicators cators (any one ind		fficient)						Sec	condary Indica	ators (2 or mor	e required
Depth (inche marks: DROLOGY Wetland Hy Primary India Surface	rdrology Indicators cators (any one ind e Water (A1)		fficient)		Stained Le	`) (excet		Sec	condary Indica ater-Stained I	ators (2 or mor Leaves (B9) (N	e required
Depth (inchestance) Depth (inchestance) DROLOGY Wetland Hy Primary India Surface High W	drology Indicators cators (any one ind e Water (A1) dater Table (A2)		fficient)	MLR	A 1, 2, 4A	`) (excet		Sec W	condary Indica ater-Stained I 4A and 4B)	ators (2 or mor Leaves (B9) (N	e require
Depth (inchest marks: DROLOGY Wetland Hy Primary India Surface X High W Satura	rdrology Indicators cators (any one ind e Water (A1) Vater Table (A2) tion (A3)		fficient)	MLR Salt Cru	A 1, 2, 4A ust (B11)	A and 4B)	e) (excep		Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter	ators (2 or mor Leaves (B9) (N	re required
Depth (inchest inchest) DROLOGY Wetland Hy Primary India Surface K High W Satura Water	rdrology Indicators cators (any one ind e Water (A1) Vater Table (A2) tion (A3) Marks (B1)		fficient)	MLR Salt Cru Aquatic	A 1, 2, 4A ust (B11) Invertebr	A and 4B)	9) (excep		Sec W Dr	condary Indica ater-Stained I 4A and 4B) rainage Patter y-Season Wa	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2)	e required
Depth (inchest marks: DROLOGY Wetland Hy Primary India Surface K High W Satura Water Sedime	rdrology Indicators cators (any one ind e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)		fficient)	MLR Salt Cru Aquatic Hydrog	A 1, 2, 4A ust (B11) Invertebr en Sulfide	and 4B) rates (B13	9) (excep	ot .	Sec	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib	ators (2 or mor Leaves (B9) (Norms (B10) Later Table (C2)	e required
CDROLOGY Wetland Hy Primary India Surface X High W Satura Water Sedime Drift De	rdrology Indicators cators (any one ind e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		fficient)	MLR Salt Cru Aquatic Hydrog Oxidize	A 1, 2, 4A ust (B11) Invertebr en Sulfide d Rhizosp	and 4B) rates (B13 e Odor (Co	(exception)))))))))))))))))))))))))))))			condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) tole on Aerial In sition (D2)	e required
Depth (inchest marks: DROLOGY Wetland Hy Primary India Surface Migh W Satura Water Sedime Drift De Algal M	rdrology Indicators cators (any one ind e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Vat or Crust (B4)		fficient)	MLR Salt Cru Aquatic Hydrog Oxidize Presen	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	A and 4B) rates (B13 e Odor (Copheres alouced Iron	B) (excep B) 1) 1) ong Livin (C4)	g Roots (C3)	Sec W Dr Dr Sa Ge	condary Indica ater-Stained I 4A and 4B) rainage Patter y-Season Wa aturation Visib eomorphic Po nallow Aquitar	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) tole on Aerial Imposition (D2) and (D3)	e require
Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De	rdrology Indicators cators (any one ind e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)		fficient)	MLR Salt Cru Aquatic Hydrog Oxidize Present	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospece of Redulation	and 4B) rates (B13 rates (C) Odor (C) Oheres alc uced Iron uction in F	3) (excep 3) 1) ong Livin (C4) Plowed S	g Roots (C3)	Sec	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In position (D2) and (D3) est (D5)	re required MLRA 1, 2
Perpeth (inchese permarks: Property (inchese permarks: Property (inchese permarks: Property (inchese permarks: Property (inchese permarks) Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Property (inchese permarks) Surface permarks: Surface permarks	rdrology Indicators cators (any one ind 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)	icator is su	- - - - - -	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospoe of Redu Iron Redu I or Stress	ates (B13 Odor (Control of the Control 3) 1) 2) (exception of the control o	g Roots (C3)	Sec 	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) and (D3) ast (D5) unds (D6) (LRI	re required MLRA 1, 2 nagery (Carren R A)	
Popth (inches and inches rdrology Indicators cators (any one ind 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) tion Visible on Aeri	icator is su		MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospece of Redulation	ates (B13 Odor (Control of the Control 3) 1) 2) (exception of the control o	g Roots (C3)	Sec 	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In position (D2) and (D3) est (D5)	re required MLRA 1, 2 nagery (Carren R A)		
Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse	rdrology Indicators cators (any one ind 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) tion Visible on Aeri	icator is su		MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospoe of Redu Iron Redu I or Stress	ates (B13 Odor (Control of the Control 3) 1) 2) (exception of the control o	g Roots (C3)	Sec 	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) and (D3) ast (D5) unds (D6) (LRI	re required MLRA 1, 2 nagery (Carren R A)	
Primary India Surface X High W Saturar Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser	rdrology Indicators cators (any one ind 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) tion Visible on Aerically Vegetated Concervations:	icator is su al Imagery ave Surface	(B7)e (B8)	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red I or Stress Explain in	and 4B) rates (B13 e Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	g Roots (C3)	Sec 	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) and (D3) ast (D5) unds (D6) (LRI	re required MLRA 1, 2 nagery (Carren R A)
Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Wat	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present?	al Imagery ave Surface	(B7)e (B8)	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red I or Stress Explain in	and 4B) rates (B13 e Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	O) (excep) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3)	Sec 	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) and (D3) ast (D5) unds (D6) (LRI	re required MLRA 1, 2 nagery (Carren R A)
Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Water Water table	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present? Yeresent?	icator is su al Imagery ave Surface	(B7)e (B8)	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red I or Stress Explain in	and 4B) rates (B13 e Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) 2) (exception of the control o	g Roots (C3)	Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te aised Ant Mou ost-Heave Hu	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) and (D3) ast (D5) unds (D6) (LRI	re required MLRA 1, 2 nagery (Carren R A)
YDROLOGY Wetland Hy Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Wat Water table Saturation P (includes ca	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present? Present? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent?	al Imagery ave Surface es X es X	(B7) e (B8) No No	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospice of Redi Iron Redu I or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rates (Control of the control of	9) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3) oils (C6) RR A) Wetland H	Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te aised Ant Mou ost-Heave Hu	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In sition (D2) ord (D3) est (D5) unds (D6) (LRI ummocks (D7)	re required MLRA 1, 2 nagery (C
YDROLOGY Wetland Hy Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Wat Water table Saturation P (includes ca	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present? Present? Yeresent?	al Imagery ave Surface es X es X	(B7) e (B8) No No	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospice of Redi Iron Redu I or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rates (Control of the control of	9) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3) oils (C6) RR A) Wetland H	Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te aised Ant Mou ost-Heave Hu	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In sition (D2) ord (D3) est (D5) unds (D6) (LRI ummocks (D7)	re required MLRA 1, 2 nagery (C
Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Water table Saturation P (includes calescribe Reco	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present? Present? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent?	al Imagery ave Surface es X es X	(B7) e (B8) No No	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospice of Redi Iron Redu I or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rates (Control of the control of	9) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3) oils (C6) RR A) Wetland H	Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te aised Ant Mou ost-Heave Hu	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In sition (D2) ord (D3) est (D5) unds (D6) (LRI ummocks (D7)	re required MLRA 1, 2 nagery (C
YDROLOGY Wetland Hy Primary India Surface X High W Satura Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obser Surface Wat Water table Saturation P (includes ca	rdrology Indicators cators (any one ind 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) tion Visible on Aeri ely Vegetated Concevations: ter Present? Present? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent? Yeresent?	al Imagery ave Surface es X es X	(B7) e (B8) No No	MLR Salt Cru Aquatic Hydrog Oxidize Present Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospice of Redi Iron Redu I or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rates (Control of the control of	9) (excep 3) 1) 1) ong Livin (C4) Plowed S s (D1) (L	g Roots (C3) oils (C6) RR A) Wetland H	Sec W	condary Indica ater-Stained I 4A and 4B) rainage Patter ry-Season Wa aturation Visib eomorphic Po nallow Aquitar AC-Neutral Te aised Ant Mou ost-Heave Hu	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial In sition (D2) ord (D3) est (D5) unds (D6) (LRI ummocks (D7)	re required MLRA 1, 2 nagery (C

Project/Site:	Plas Newydd Farm			City/County:	Clark Cou	nty			Sampling	Date:	5/1/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	33
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S2, T41	N, R1W			
Landform (hillslope		Floodplain									
	Northwest Forests a	•							6°	Datum	n: WGS 84
Soil Map Unit Nam		oam, sandy substr						ssification:			
	ologic conditions on the				_		_		(If no, explai		
Are Vegetation	, Soil										_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	swers in Ren	narks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	ransec	ts, impo	rtant featu	res, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen					ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology	y Present?)	WILLIIII	a vvetianu:		-		-		
Remarks:		<u> </u>									
VEGETATION						D		4			_
Tree Stratum (U	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?	Number	of Domi	t workshee	es		
1. Fraxinus latifo	lia		40	Υ	FACW	That Are	e OBL, F	ACW, or FA	AC:	4	_(A)
2. Populus balsa	mifera		5		FAC			Dominant			
3.						Species	Across A	All Strata:		4	_(B)
4						Percent	of Domii	nant Specie	es		
		Total Cover:	45			That Are	OBL, F	ACW, or F	AC:	100%	_(A/B)
Shrub Stratum 1. Cornus alba			00	V	FACW			x Worksh		aldian la color an	
 Cornus alba Lonicera invol 	ucrata		20		FAC		al % Cov	ver or.		ultiply by: 0	_
3.	истана						-		x2 =	0	_
4.						FAC spe	_		x3 =	0	_
5.							=		x4 =		
		Total Cover:	40	-		UPL spe	_		x5 =	0	_
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Phalaris arund	dinacea		80	Υ	FACW		·-	lex = B/A =	-	IV/0!	<u> </u>
2. Galium trifidun	n		20		FACW						
3. Myosotis laxa			1		OBL	Hydrop	hytic Ve	getation In	dicators:		
4. Veronica anag	gallis-aquatica		1		OBL				Hydrophytic \	egetation/	
5						X		ninance Te			
6.						#####			ex is ≤3.0 ¹		
								_	Adaptation1 (porting
8									r on a separa ⁄ascular Plan	,	
									phytic Vegeta		in\
10. 11.							Problem	nalic Hyuro	priylic veget	апоп (⊏хріа	111)
11.		Total Cover:	102		· ———						
Woody Vine S	tratum	Total Gover.	102			1Indicate	ors of hyd	dric soil and	d wetland hyd	rology must	
1.	- Caratani								d or problema		
2.				-		Lluden	h. 41 a				
		Total Cover:	0			Hydrop Vegetat	-				
% Ba	re Ground in Herb St			otic Crust	0	Present			Yes X	No	
Remarks:						I .					

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Loc² (inches) Color (moist) Color (moist) Type¹ Texture Remarks 0-3 10 YR 3/2 100 SILT LOAM 3-6 10 YR 4/2 95 10 YR 3/4 5 SILT LOAM 10 YR 4/2 77 20 С 6-16 7.5 YR 3/3 SILT LOAM 10 YR 4/6 3 C M ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) 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) ³Indicators of hydrophytic vegetation and Sandy Muck Mineral (S2) 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, X High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? Yes No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes X Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Project/Site:	Plas Newydd Farm	า		City/County:	: Clark Cour	nty		Sampling [Date:	5/22/2014
Applicant/Owne	er: Plas Newydd Farm	1					State: WA	Sampling F	Point:	34
Investigator(s):	B. Haddaway, T.S	tout		Section	n, Township	, Range:	S2, T4N, R1W			
	ope, terrace, etc.):	Floodplain					, none): none		Slope (%):	0-1%
Subregion (LRF	R): Northwest Forests	and Coast (LRR A)	Lat:	_ 45.850967°	•		Long: 122.77460	5°	='	WGS 84
Soil Map Unit N		loam, sandy substra					NWI Classification:		-	
•	drologic conditions on	•		/ear?	Yes 2			(If no, explain	in Remarks	<u> </u>
Are Vegetation	, Soil				_		Normal Circumstance			
Are Vegetation		, or Hydrology					eded, explain any an			
-	DF FINDINGS – At	_								
Hydrophytic Ve	getation Present?	YesNo	X							
Hydric Soil Pres	-				ampled Are	a	Yes	No X		
Wetland Hydrol		Yes No		within a	a Wetland?			-		
large dam-regu	c soils underlie much o lated rivers (Columbia a sytic vegetation or wetla	and Lewis) that con								
VEGETATIO	N									
			Absolute	Dominant	Indicator	Domina	nce Test workshee	et:		
Tree Stratum	(Use scientific names.)	1		Species?	Status?	Number	of Dominant Specie	es		
1.	(OSC SCICITUTE HATTICS.)	1					e OBL, FACW, or FA		1	(A)
2.						Total Nu	umber of Dominant			_(^)
3.							Across All Strata:		4	(B)
J						·		-	4	_(D)
4		Total Cover:	0				of Dominant Specie e OBL, FACW, or FA		25%	(A/B)
		Total Cover.				THAT AIR	B OBL, FACW, OI FA	4C	23%	_(A/D)
Shrub Stratum						Provalo	nce Index Worksho	2011		
	a da maia		20	V	FACU		tal % Cover of:		timber been	
Rubus leuc Correcte aller			20	<u> </u>	FACW	-			tiply by:	-
2. Cornus alba			15		FAC	OBL spe	-		0	=
3. Frangula pu			10	Y	FACU	FAC spe	species		0	_
 Symphorica Spiraea doi 	•			<u> </u>	FACW				0	=
Spiraea do.	ugiasii	Total Cover:	<u>5</u> 95	-	TAOW	UPL spe	pecies		0	=
Herb Stratum		Total Cover:	95			•	-	x5 =	0	- (B)
	un dina a a a		4		FACW		lence Index = B/A =	(A)		_(D)
 Phalaris ard Galium apa 			1	Y	FACU	Fieva	ience index – b/A –	#011	7/0:	=
			10		FACU	Lluduan	hytic Vegetation In	diantara.		
 Polystichun Cirsium arv 			<u>1</u>		FAC	пушор	-		antation	
 Cirsium arv Carex obnu 				Y	OBL		1 - Rapid Test for I2 - Dominance Test		egetation	
6. <u>Carex obrid</u>	<i>ір</i> іа					#####				
7						#####			rouido ou on	artina
							4 - Morphological Adata in Remarks o			orung
8				-	- ——		5 - Wetland Non-V			
9							Problematic Hydro			۵)
							Problematic Hydro	priylic vegelai	ion (Expiair	1)
11										
\\/ \ \/ \/ \	- Otrotom	Total Cover:	18			1				
Woody Vine							ors of hydric soil and ent, unless disturbed			
						pe biese	one, unicoo dioluiDel	. or broniemat		
2		T. (.) O.				Hydrop				
01	Dava Oresinalis III d	Total Cover:			•	Vegetat		Vaa	Ne V	
	Bare Ground in Herb S	uatum <u>0</u> %	Cover of Bi	otic Crust	0	Present	L r	Yes	No X	
Remarks:										

SOIL

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

Depth

Matrix

Redox Features

Depth						_ 1	. ი					
nches)	Color (moist)	<u>%</u>	Color ((moist)	%	Type ¹	Loc ²	_		Ren	narks	
4	10 YR 3/2	100						SANDY LOA	_			
9	10 YR 4/2	90	7.5 YR 4	./4	10	<u>C</u>	<u>M</u>	SANDY LOA	_			
16	10 YR 3/2	90	7.5 4/4		5	<u>C</u>	М	SANDY LOA	<u> </u>			
	<u> </u>		10 YR 5/		5	D	M					
	_											
							-	_	_			
ype: C=	Concentration, D=De	pletion, RN	√=Reduce	d Matrix, CS	=Cove	red or Co	ated Sa	nd Grains. ² Loca	ation: PL=Po	ore Lining, M=	Matrix.	
ydric Sc	oil Indicators: (Applie	cable to a	II LRRs, u	ınless other	wise n	oted.)		Indicators fo	or Problema	tic Hydric So	ils³:	
-	osol (A1)		,	Sandy Red		•			2 cm Mu	-		
	c Epipedon (A2)			Stripped M				_		ent Material (T	F2)	
	k Histic (A3)			-			(excep	t MLRA 1)		xplain in Rema		
	rogen Sulfide (A4)			Loamy Gle	-			, <u> </u>	_ `	•	,	
	leted Below Dark Surfa	ace (A11)		Depleted I	•	` '						
	k Dark Surface (A12)	(,		Redox Da				³ Indicat	ors of hydror	ohytic vegetati	on and	
_	dy Muck Mineral (S2)			Depleted I		, ,	7)			y must be pres		
	dy gleyed Matrix (S4)			Redox De			,			d or problemat		
	/e Layer (if present):			- REGOX DE	predoid	710 (1 0)		uni.		a or problema		
ype:	o Luyer (ii processyr											
ypc.												Na
	ches):		<u> </u>					lydric Soil Prese	ent?	Yes <u>X</u>		No
marks: DROLOG	GY							dydric Soil Prese	ent?	Yes X		NO
DROLOG	GY Hydrology Indicators		fficient)					dydric Soil Prese			or more	
DROLOG Vetland Frimary In	GY Hydrology Indicators ndicators (any one indic		fficient)	Water-Sta	ined Le	eaves (RC			Secondary	y Indicators (2		requirec
DROLOG Jetland I rimary In	GY Hydrology Indicators ndicators (any one indicators (A1)		fficient)	_ Water-Sta		•) (exce		Secondary Water-St	y Indicators (2 ained Leaves		requirec
DROLOG /etland I rimary In Surfa High	GY Hydrology Indicators indicators (any one indicator (A1) in Water Table (A2)		fficient)	MLRA 1	1, 2, 4A	eaves (B9 A and 4B)) (exce		Secondary Water-St 4A an	y Indicators (2 ained Leaves ad 4B)	(B9) (M	requirec
DROLOG Vetland I rimary In Surfa High Satu	GY Hydrology Indicators adicators (any one indicate Water (A1) Water Table (A2) aration (A3)		fficient)	MLRA 1 Salt Crust	1, 2, 4A (B11)	and 4B))) (exce		Secondary Water-St 4A an	/ Indicators (2 ained Leaves ld 4B) Patterns (B10	(B9) (M 0)	requirec
DROLOG /etland l rimary In Surfa High Satu Wate	Hydrology Indicators adicators (any one indicate Water (A1) Water Table (A2) aration (A3) er Marks (B1)		fficient)	MLRA 1 Salt Crust Aquatic In	1, 2, 4A (B11) vertebr	and 4B))) (excep		Secondary Water-St 4A an Drainage Dry-Seas	/ Indicators (2 ained Leaves id 4B) Patterns (B10 son Water Tab	(B9) (M 0) ole (C2)	required
DROLOC Vetland Herimary In Surfa High Satu Wate Sedii	Hydrology Indicators adicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2)		fficient)	MLRA 1 Salt Crust Aquatic In Hydrogen	1, 2, 4A (B11) vertebr Sulfide	and 4B) rates (B13	(except)) (except)	ot	Secondary Water-St 4A an Drainage Dry-Seas Saturatio	y Indicators (2 cained Leaves id 4B) Patterns (B10 son Water Tab in Visible on A	(B9) (M 0) ble (C2) erial Ima	required
DROLOC Vetland Interpretation of the control of the	Hydrology Indicators adicators (any one indicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3)		fficient)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F	1, 2, 4A (B11) vertebr Sulfide Rhizosp	and 4B) rates (B13 e Odor (Coheres ald	i) (exception) (ex		Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory	y Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I	(B9) (M 0) ble (C2) erial Ima	required
DROLOG Vetland I rimary In Surfa High Satu Wate Sedi Drift Alga	Hydrology Indicators adicators (any one indicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) Il Mat or Crust (B4)		fficient)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Red	and 4B) rates (B13 rates (Coberes alcuced Iron	(C4)	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3)	(B9) (M 0) ble (C2) erial Ima D2)	required
DROLOG Vetland I Surfa High Satu Wate Sedii Drift Algai	Hydrology Indicators adicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)		fficient)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Redu	and 4B) rates (B13 rates (Cobheres alcuced Iron rates (B13)	(C4)	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow	y Indicators (2 rained Leaves ad 4B) Patterns (B10 son Water Tab on Visible on A ohic Position (I Aquitard (D3)	(B9) (M 0) ble (C2) erial Ima D2)	required LRA 1, 2
DROLOG Vetland I Surfa High Satu Wate Sedi Drift Alga Iron	Hydrology Indicators adicators (any one indicators (any one indicators (A1) a Water Table (A2) aration (A3) arer Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	cator is su		MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Red on Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A	y Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D	(B9) (M 0) ole (C2) erial Ima D2)	required LRA 1, 2
DROLOC Vetland I Trimary In Surfa High Satu Wate Sedii Drift Algai Iron Surfa	Hydrology Indicators adicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator (A1) a Water Table (A2) aration (A3) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aeria	cator is su	(B7)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Red on Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A	y Indicators (2 rained Leaves ad 4B) Patterns (B10 son Water Tab on Visible on A ohic Position (I Aquitard (D3)	(B9) (M 0) ole (C2) erial Ima D2)	required LRA 1, 2
DROLOG Vetland I Surfa High Satu Wate Sedii Drift Algai Iron Surfa	Hydrology Indicators adicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator) are Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Conca	cator is su	(B7)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Red on Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A	y Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D	(B9) (M 0) ole (C2) erial Ima D2)	requirect LRA 1, 2
Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inund Spar	Hydrology Indicators adicators (any one indicators (any one indicator (A1) a Water Table (A2) aration (A3) arer Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aeria arsely Vegetated Conca	l Imagery	(B7) e (B8)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	1, 2, 4A (B11) vertebr Sulfide Rhizosp of Redu on Redu Stress blain in	and 4B) rates (B13 rates (Control of the Control of	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A	y Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D	(B9) (M 0) ole (C2) erial Ima D2)	requirect LRA 1, 2
DROLOG Vetland I Primary In Satu Wate Sedii Drift Algai Iron Inune Spar	Hydrology Indicators adicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aeria arsely Vegetated Concators ervations: Vater Present? Ye	I Imagery ve Surface	(B7) e (B8)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in	and 4B) rates (B13 rates (Control of the Control of	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A	y Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D	(B9) (M 0) ole (C2) erial Ima D2)	requirect LRA 1, 2
DROLOG Vetland I Surfa High Satu Wate Sedii Drift Algai Iron Surfa Inune Spar	Hydrology Indicators adicators (any one indicators (any one indicator (A1) a Water Table (A2) aration (A3) arer Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aeria arsely Vegetated Conca	I Imagery ve Surfaces s	(B7) e (B8)	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capac	3) 1) 1) ong Livir (C4) Plowed S	g Roots (C3)	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A Frost-He	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D ave Hummock	(B9) (M 0) ole (C2) erial Ima D2) 6) (LRR	required LRA 1, 2
DROLOG Vetland I Primary In Surfa High Satu Wate Sedii Drift Algai Iron Inune Spar	Hydrology Indicators adicators (any one indicators Imagery ve Surface s s s	(B7) e (B8) No X No X No X	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in nches) nches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L	g Roots (C3) Goils (C6) RR A) Wetland Hyd	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A Frost-He	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D ave Hummock	(B9) (M 0) ole (C2) erial Ima D2) 6) (LRR	e required LRA 1, 2 agery (C:	
DROLOG Vetland I Primary In Surfa High Satu Wate Sedii Drift Algai Iron Inune Spar	Hydrology Indicators adicators (any one indicators A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concators ervations: Vater Present? Ye a Present? Ye a Present? Ye	I Imagery ve Surface s s s	(B7) e (B8) No X No X No X	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in nches) nches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L	g Roots (C3) Goils (C6) RR A) Wetland Hyd	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A Frost-He	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D ave Hummock	(B9) (M 0) ole (C2) erial Ima D2) 6) (LRR	e required LRA 1, 2 agery (C:
DROLOG Vetland I Primary In Surfa High Satu Wate Sedii Drift Algai Iron Surfa Inund Spar	Hydrology Indicators adicators (any one indicators Imagery ve Surface s s s	(B7) e (B8) No X No X No X	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in nches) nches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L	g Roots (C3) Goils (C6) RR A) Wetland Hyd	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A Frost-He	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D ave Hummock	(B9) (M 0) ole (C2) erial Ima D2) 6) (LRR	e required LRA 1, 2 agery (CS	
DROLOG Vetland I Primary In Surfa High Satu Wate Sedii Drift Algai Iron Inune Spar	Hydrology Indicators adicators (any one indicators Imagery ve Surface s s s	(B7) e (B8) No X No X No X	MLRA 1 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp Depth (i Depth (i	(B11) vertebr Sulfide Rhizosp of Red on Red Stress blain in nches) nches)	and 4B) rates (B13 rat	(C4) Plowed S (D1) (L	g Roots (C3) Goils (C6) RR A) Wetland Hyd	Secondary Water-St 4A an Drainage Dry-Seas Saturatio Geomory Shallow A FAC-Neu Raised A Frost-He	/ Indicators (2 ained Leaves ad 4B) Patterns (B10 son Water Tab in Visible on A phic Position (I Aquitard (D3) utral Test (D5) ant Mounds (D ave Hummock	(B9) (M 0) ole (C2) erial Ima D2) 6) (LRR	e required LRA 1, 2 agery (CS	

Project/Site:	Plas Newydd Farm	L		City/County:	: Clark Cour	nty			Sam	pling Date:	5	/22/2014
Applicant/Owner:	Plas Newydd Farm	l					State:	WA	Sam	pling Point:		35
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	S2, T4I	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slop	e (%): <u>0-</u>	1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460	6°		Datum: <u>W</u>	'GS 84
Soil Map Unit Nam	ne: Sauvie silt l	oam, sandy substr	atum				NWI Cla	ssification:	none			
Are climatic / hydro	ologic conditions on t	the site typical for t	his time of y	/ear?	Yes	X	No		(If no,	explain in Re	emarks)	
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	lormal C	ircumstanc	es" Pres	sent? Yes	X No	ο
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any ar	swers i	n Remarks.)		
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations, 1	transec	cts, impo	rtant f	eatures, e	etc.	
Hydrophytic Veget	ation Present?	Yes X No)									
Hydric Soil Presen		Yes X No)		ampled Are a Wetland?		Yes	Χ	No			
Wetland Hydrolog		Yes X No)	Within	a welland?		•		_		-	
Remarks:	,											
VEGETATION												
Tree Stratum (III	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?			st workshe				
1. Fraxinus latifo	,		65	Y	FACW	That Are	e OBL, F	ACW, or F	AC:	4	(A	N)
Populus balsa			30		FAC	Total Nu	ımber of	Dominant	_	•	(,	.,
3.					-			All Strata:		5	(B	3)
4.						Percent	of Domi	nant Specie	es —			
		Total Cover:	95					ACW, or F		80%	(A	VB)
Shrub Stratum			-	V	FACU			ex Worksh	eet:	Multiply		
 Symphoricarp Lonicera invol 			20	Y	FAC	OBL spe	tal % Co	vei oi.		Multiply b	<u>y.</u>	
3.	uorata	.										
4.						FAC spe				0		
5.												
		Total Cover:	25	-		UPL spe			x5 =	0		
Herb Stratum						Column	Totals:	0	(A)	0	(B	3)
1. Phalaris arund	dinacea		85	Υ	FACW	Preva	lence Ind	dex = B/A =		#DIV/0!		
2												
3						Hydrop	hytic Ve	getation In	dicator	s:		
4										nytic Vegetat	tion	
						X		ninance Te				
						#####		valence Ind				
									•	ion1 (Provide		ng
					- ——					eparate she	et)	
								tland Non-\			· · · · · · · · · · ·	
							Problei	nauc Hyurc	priyuc v	/egetation ¹ (Explain)	
11		Total Cover:	85									
Woody Vine S	tratum	Total Cover.				1Indicate	ore of hw	dric soil and	l wetlan	d hydrology	muet	
1.	dididii							ss disturbe			must	
2.												
		Total Cover:	0		. ———	Hydrop Vegetat						
% Ba	re Ground in Herb S			otic Crust	0	Present			Yes X	No		
Remarks:						l .						
1												

								Sampling Poi	int:	35
Profile De	escription: (Describe	to the de	epth needed to docu	ıment th	e indicat	or or co	nfirm the abser	nce of indicators.)		
Depth	Matrix		Red	ox Featu	ires		<u>-</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	<u> </u>	Remarks	
0-3	7.5 YR 4/4	100					SILT LOAM			
3-6	10 YR 3/2	80	10 YR 5/6	10	С	M	SILT LOAM			
	_		10 YR 5/2	10	D	M	_	_		
6-16	10 YR 5/1	65	10 YR 5/6	20	С	M	SILT LOAM			
			7.5 YR 4/3	10	С	M				
	_		10 YR 6/1	5	D	M				
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix, C	S=Cove	red or Co	ated San	nd Grains. ² Loc	ation: PL=Pore Lin	ing, M=Matrix.	
-	oil Indicators: (Applic	able to a	II LRRs, unless othe	erwise n	oted.)		Indicators f	or Problematic Hy		
	osol (A1)		Sandy R				_	2 cm Muck (A1		
	c Epipedon (A2)		Stripped				_	Red Parent Ma		
	k Histic (A3)						MLRA 1)	Other (Explain	in Remarks)	
	rogen Sulfide (A4)			-	atrix (F2))				
	eted Below Dark Surfa	ce (A11)	X Depleted				3			
	k Dark Surface (A12)		Redox D		, ,			tors of hydrophytic	•	
	dy Muck Mineral (S2)				urface (F	7)		and hydrology must	•	
	dy gleyed Matrix (S4)		Redox D	epressio	ns (F8)		un	less disturbed or pr	oblematic.	
Restrictiv	e Layer (if present):									
Type:										
Depth (inc	ches):					н	ydric Soil Pres	ent?	/es <u>X</u>	No
· · ·	ches):					н	ydric Soil Pres	ent? \	res <u>X</u>	No
Depth (inc						н	ydric Soil Pres	ent?	fes <u>X</u>	No
Depth (incomercial depth (income						н	ydric Soil Pres	ent?	fes X	No
Depth (incomercial period of the commercial period of the competition	GY Hydrology Indicators: dicators (any one indic							Secondary Indica	ators (2 or mor	e required)
Depth (income per per per per per per per per per pe	GY Hydrology Indicators: dicators (any one indicators (A1)		Water-S		eaves (BS)) (excep		Secondary Indication	ators (2 or mor	e required)
YDROLOG Wetland I Primary In Surfa High	Hydrology Indicators: adicators (any one indicator (A1) Water Table (A2)		Water-S MLRA	1, 2, 44	eaves (B9)) (excep		Secondary Indica Water-Stained 4A and 4B)	ators (2 or mor Leaves (B9) (N	e required)
YDROLOG Wetland I Primary In Surfa High	GY Hydrology Indicators: dicators (any one indicators (A1)		Water-S	1, 2, 44	,)) (excep		Secondary Indication Water-Stained 4A and 4B) Drainage Patte	ators (2 or mor Leaves (B9) (N	e required)
YDROLOG Wetland I Primary In Surfa High Satu	Hydrology Indicators: adicators (any one indicator (A1) Water Table (A2)		Water-S MLRA Salt Crus Aquatic I	1, 2, 4<i>A</i> st (B11) Invertebr	and 4B))) (excep		Secondary Indication Water-Stained 4A and 4B) Drainage Patte Dry-Season Wa	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2)	e required) //LRA 1, 2,
Depth (income property) IYDROLOG Wetland I Primary In Surfa High Satu Wate	Hydrology Indicators: dicators (any one indicate Water (A1) Water Table (A2) ration (A3)		Water-S MLRA Salt Crus Aquatic I	1, 2, 4<i>A</i> st (B11) Invertebr	and 4B))) (excep		Secondary Indication Water-Stained 4A and 4B) Drainage Patte	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2)	e required) //LRA 1, 2,
Depth (incomplete	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		Water-Si MLRA Salt Crus Aquatic I Hydroge	A 1, 2, 4 st (B11) Invertebr n Sulfide	and 4B) ates (B13	9) (excep		Secondary Indication Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Season Water-Season Water-Season Water-Season Water-Season Visiter-Season Visi	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ble on Aerial Im	e required) //LRA 1, 2,
Primary In Satu Wate Sedi Drift	Hydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Water-S MLRA Salt Crus Aquatic I Hydroge Oxidized	1, 2, 4 A st (B11) Invertebr n Sulfide I Rhizosp	and 4B) ates (B13	9) (excep 3) 1) ong Living	t	Secondary Indication Water-Stained 4A and 4B) Drainage Patte Dry-Season Water	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ble on Aerial Imposition (D2)	e required) //LRA 1, 2,
Depth (incomplete	Hydrology Indicators: dicators (any one indicators	Water-S MLRA Salt Crus Aquatic I Hydroge Oxidized Presence	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red	and 4B) ates (B13 Odor (Coheres ald	9) (excep 3) 1) ong Living (C4)	t	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visite Geomorphic Potensial	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3)	e required) //LRA 1, 2,	
YDROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron	Hydrology Indicators: Idicators (any one indicators (Any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4)		Water-Si MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Red	ates (B13 Odor (Coheres ald	3) (excep 3) 1) ong Living (C4) Plowed S	g Roots (C3) X	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Season Wa	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5)	e required) ILRA 1, 2, nagery (C9)
YDROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa	Hydrology Indicators: dicators (any one indicators or is su	Water-S MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Redu or Stress	ates (B13 Odor (Coheres alduced Iron uction in F	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	g Roots (C3) X	Secondary Indication Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visite Geomorphic Poters Shallow Aquital	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRM	e required) //LRA 1, 2, nagery (C9)	
Depth (incomplete	Hydrology Indicators: dicators (any one indicators (any one indicators) ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	Water-S: MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted (Other (E	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Redu or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	g Roots (C3) X	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visiter Geomorphic Potential Termina	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRM	e required) //LRA 1, 2, nagery (C9)
Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun Spar	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) dace Soil Cracks (B6) dation Visible on Aerial desely Vegetated Concaverservations:	ator is su I Imagery ve Surfac	Water-S: MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted (B7) Other (E	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Redu or Stress xplain in	ates (B13 Odor (C oheres ald uced Iron uction in F sed Plants Remarks	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	g Roots (C3) X	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visiter Geomorphic Potential Termina	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRM	e required) //LRA 1, 2, nagery (C9)
Primary In Satu Wate Sedi Drift Alga Iron Surface William Spar	Hydrology Indicators: dicators (any one indicators (A3) ace Water (A1) Water Table (A2) ration (A3) are Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial acely Vegetated Concators acervations: Vater Present? Yes	I Imagery ve Surfac	Water-S: MLRA	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Redu or Stress xplain in (inches)	ates (B13) Odor (Coheres alcouced Iron uction in Feed Plants Remarks	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	g Roots (C3) X	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visiter Geomorphic Potential Termina	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRM	e required) //LRA 1, 2, nagery (C9)
Primary In Satu Wate Sedi Drift Alga Iron Surfa Inun-Spar Field Obs	Hydrology Indicators: dicators (any one indicators (A3)) For Marks (B1) For Marks (B1) For Marks (B3) For Marks (B3) For Marks (B4) For Marks (B4) For Marks (B6) For	I Imagery ve Surfac	Water-S: MLRA	A 1, 2, 4A st (B11) Invertebr n Sulfide I Rhizosp e of Red ron Redu or Stress xplain in	ates (B13) Odor (Coheres alcouced Iron uction in Feed Plants Remarks	9) (excep 3) 1) ong Living (C4) Plowed S s (D1) (LI	g Roots (C3) X	Secondary Indica Water-Stained 4A and 4B) Drainage Patte Dry-Season Water-Stained Saturation Visiter Geomorphic Potential Termina	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRM	e required) //LRA 1, 2, nagery (C9)

Remarks:

Project/Site: Plas Newydd Farm		City/County:	: Clark Cour	nty Sampling Date: 5/22/
pplicant/Owner: Plas Newydd Farm				State: WA Sampling Point:
nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S2, T4N, R1W
andform (hillslope, terrace, etc.): Floodplain		Local re	elief (concav	e, convex, none): none Slope (%): 0-1%
ubregion (LRR): Northwest Forests and Coast (LRR A	<u>)</u> Lat:	45.850967°		Long: <u>122.774606°</u> Datum: <u>WGS</u>
oil Map Unit Name: Sauvie silt loam, sandy substr	atum			NWI Classification: none
re climatic / hydrologic conditions on the site typical for t	his time of	year?	Yes 2	X No (If no, explain in Remarks)
re Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstances" Present? Yes X No
re Vegetation, Soil, or Hydrology		naturally pr	oblematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, transects, important features, etc.
ydrophytic Vegetation Present? Yes X No)	la tha S	ompled Are	_
lydric Soil Present? YesNo	X		ampled Area a Wetland?	YAS NO X
Vetland Hydrology Present? YesNo	<u>X</u>			
ondtions; however, no hydric soil or wetland hydrologica				and and wetland plants adapted to fluctuating hydrological
EGETATION		- · ·		Danis and Tark workshoot
rea Ctratum (Llas esigntific names)	Absolute % Cover	Dominant Species?	Indicator Status?	Dominance Test worksheet: Number of Dominant Species
ree Stratum (Use scientific names.)		· ·	FAC	That Are OBL FACW or FAC:
Populus balsamifera Fraxinus latifolia		<u>Y</u> Y	FACW	Total Number of Dominant
Fraxiiius iatiiolia			17.011	Species Across All Strata: 5 (B)
·				(B)
Total Cover	25			Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)
Total Cover				(118)
hrub Stratum				Prevalence Index Worksheet:
. Rubus leucodermis	25	Υ	FACU	Total % Cover of: Multiply by:
. Cornus alba	15		FACW	OBL species x1 = 0
. Rubus laciniatus	15		FACU	FACW species x2 = 0
. Spiraea douglasii	5		FACW	FACU species x4 = 0
. Symphoricarpos albus	60	Υ	FACU	FAC speciesx3 =
Lonicera involucrata	20		FAC	FACU species x4 = 0
Total Cover	140			UPL speciesx5 = 0
lerb Stratum				Column Totals: (A) (B)
Phalaris arundinacea	5	Υ	FACW	Prevalence Index = B/A = #DIV/0!
· ,				
· <u></u>				Hydrophytic Vegetation Indicators:
·				1 - Rapid Test for Hydrophytic Vegetation
·				X 2 - Dominance Test is >50%
·				##### 3 - Prevalence Index is ≤3.01
				4 - Morphological Adaptation1 (Provide supporting
				data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2
				Problematic Hydrophytic Vegetation (Explain)
				i iobiemalic riyurophylic vegetalion (Explain)
0.	5			
Total Covers Woody Vine Stratum	5			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Total Covers Woody Vine Stratum	5			be present, unless disturbed or problematic.
Total Covers Woody Vine Stratum	5			be present, unless disturbed or problematic. Hydrophytic
0Total Covers Woody Vine Stratum	5		0	be present, unless disturbed or problematic.

Profile Des	scription: (Describe t	o the de	pth needed	to document th	e indicate	or or co	onfirm the absence	of indicators.)		
Depth	Matrix			Redox Featu	ires					
(inches)	Color (moist)	%	Color (mo		Type ¹	Loc ²	_ Texture		Remarks	
0-3	10 YR 3/2	100					SANDY LOAM			
3-5	10 YR 4/2	85	7.5 YR 4/4	10	С	М	SANDY LOAM			
			5 YR 4/4	5	C	PL		NOT LIVING	ROOTS	
5-10	10 YR 4/3	75	7.5 YR 4/4	10	C	M	SANDY LOAM		71.0010	
0 10	10 11(4/0		5 YR 4/4		C	M	O/ (I VE)			_
			10 YR 4/2		D	M				
10-16	5 YR 4/3	90	10 YR 4/2	10	D	M	SAND LOAM			
10-16	5 TR 4/5	90	10 TR 4/2		<u>D</u>	IVI	SAND LOAW			
¹ Type: C=0	Concentration, D=Deple	etion RN	/=Reduced N	Matrix CS=Cove	red or Co	ated Sa	nd Grains ² Locati	on: PI =Pore Lin	ing M=Matrix	
Hydric Soi	I Indicators: (Applica	ible to a	II LRRs, unle	ess otherwise n	oted.)		Indicators for	Problematic Hy	dric Soils³:	
Histos	sol (A1)		8	Sandy Redox (S5	5)			2 cm Muck (A1	0)	
Histic	Epipedon (A2)		8	Stripped Matrix (S	S6)			Red Parent Ma	terial (TF2)	
Black	Histic (A3)		L	oamy Mucky Mi	neral (F1)	(excep	t MLRA 1)	Other (Explain	in Remarks)	
— Hydro	gen Sulfide (A4)			oamy Gleyed M	atrix (F2))				
Deple	ted Below Dark Surfac	e (A11)		Depleted Matrix (F3)					
	Dark Surface (A12)	` ,		Redox Dark Surfa			³ Indicator	s of hydrophytic	vegetation and	
	y Muck Mineral (S2)			Depleted Dark Su		7)		d hydrology must	_	
	y gleyed Matrix (S4)			Redox Depression		,		s disturbed or pr		
	Layer (if present):		<u> </u>	1040X 20p100010	(1 0)		411100	o diotal bod of pr	obioinatio.	
Type:	, (p,									
Depth (inch	nes):						lydric Soil Presen	t? '	Yes	No X
Remarks:							•			
Remarks.										
HYDROLOG	v									
	ydrology Indicators:									
	dicators (any one indica	ıtor is su	fficient)					Secondary Indic	ators (2 or mor	e required)
	ce Water (A1)	101 10 00		Vater-Stained Le	2V66 (R0) (evce		Water-Stained		
	Water Table (A2)		v		,			,		MENA 1, 2,
	, ,			MLRA 1, 2, 4A	anu 4b)			4A and 4B)		
	ation (A3)			Salt Crust (B11)				Drainage Patte		
	r Marks (B1)			Aquatic Invertebr	`	,		Dry-Season W	•	
	nent Deposits (B2)			lydrogen Sulfide	,	•		Saturation Visil		nagery (C9)
	Deposits (B3)			Oxidized Rhizosp		-	g Roots (C3)	Geomorphic Po		
Algal I	Mat or Crust (B4)		F	Presence of Red	uced Iron	(C4)		Shallow Aquita	rd (D3)	
Iron D	eposits (B5)		F	Recent Iron Redu	uction in P	Plowed S	Soils (C6)	FAC-Neutral T	est (D5)	
Surfac	ce Soil Cracks (B6)		5	Stunted or Stress	ed Plants	s (D1) (L	.RR A)	Raised Ant Mo	unds (D6) (LR	R A)
Inunda	ation Visible on Aerial I	magery	(B7) — (Other (Explain in	Remarks	;)		Frost-Heave H	ummocks (D7)	
	ely Vegetated Concave		· · —	` '		,			,	
Field Obse	ervations:									
	ater Present? Yes		No X	Depth (inches)	:					
Water table			No X	Depth (inches)						
Saturation I	Present? Yes		No X	Depth (inches)			Wetland Hydro	logy Present?	Yes	No_X
	apillary fringe)									
Describe Rec	corded Data (stream ga	iuge, mo	nitoring well,	aerial photos, pr	evious ins	spection	s), if available:			
Remarks:										
. comanto.										

Project/Site:	Plas Newydd Farm			City/County	: Clark Cour	nty		Sampling I	Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling I	Point:	37
Investigator(s):	B. Haddaway, T.Sto	out		Sectio	n, Township	, Range:	S2, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967	0		Long: 122.7746	06°	_ Datum:	: WGS 84
Soil Map Unit Nam	ne: Sauvie silt lo	oam, sandy substra	atum				NWI Classification	: none		
Are climatic / hydro	ologic conditions on t	he site typical for t	his time of y	year?	Yes 2	X	No	_ (If no, explain	າ in Remarks	s)
Are Vegetation	, Soil	_, or Hydrology		significantly	/ disturbed?	Are "N	Normal Circumstan	ces" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any a	inswers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	tach site map s	showing	sampling	point loca	ations,	transects, imp	ortant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)							
Hydric Soil Presen)		ampled Are a Wetland?		Yes X	No		
Wetland Hydrology)	Within	a wellanu?					
Remarks: Within N		<u> </u>								
VEGETATION										
Tree Stratum (III	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?		ance Test worksh			
Populus balsa	•		20	Y	FAC	That Ar	e OBL, FACW, or I	FAC:	3	(A)
Fraxinus latiform			40		FACW	Total N	umber of Dominan			_('')
3.		 -					Across All Strata:		4	(B)
4.					· ———	Percent	of Dominant Spec	ies		_ ` '
		Total Cover:	60			1	e OBL, FACW, or I		75%	_(A/B)
Shrub Stratum						Prevale	ence Index Works	heet:		
Rubus leucode	ermis		10	Υ	FACU		tal % Cover of:		Itiply by:	
2.				-		OBL sp		x1 =	0	_
3.					·		species		0	_
4.							pecies		0	_
5.						FAC sp			0	_
6.							species	x4 =	0	=
		Total Cover:	10			UPL sp	ecies	x5 =	0	<u>-</u> _
Herb Stratum						Column	Totals: 0	(A)	0	_(B)
1. Phalaris arund	dinacea		90	Υ	FACW	Preva	lence Index = B/A	=#DI\	V/0!	_
2. Galium aparin	е		1		FACU					
3.						Hydrop	hytic Vegetation			
4							1 - Rapid Test fo		egetation	
5						X	2 - Dominance T			
6						#####	3 - Prevalence In			
7							4 - Morphologica			orting
8							data in Remarks	or on a separat	e sheet)	
							5 - Wetland Non-			
10							Problematic Hyd	ophytic Vegeta	tion¹ (Explai	n)
		Total Cover:	91			١.				
Woody Vine S							ors of hydric soil ar ent, unless disturb			
					. ———	be pies	ent, unless disturbi	ed of problemat	,10.	
2		Total Cover:			· ——	Hydrop	•			
% Pa	re Ground in Herb St				0	Vegetar Present		Yes X	No	
	ic Giodila III Heib St	a.u.ii <u> </u>	COVEL OF BI	one orași		Fresen		169 🗸	No	
Remarks:										

Frome De	scription: (Describe	to the de	onth pooded to do	numant th	o indicat	or or oor	firm the ab		Sampling Point:	37
Danth		to the de				or or cor	min the ab	sence or	maicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	edox Featu %	Type ¹	Loc ²	- Textu	ro	Remarks	
0-2	10 YR 3/2	100	Color (moist)	70	Type	LUC	SILT LOA	_	Remarks	
2-7	10 YR 4/2	90	7.5 YR 4/1	5	D	M	SANDY L			
	10 11(4/2		7.5 YR 3/3	5	C	M	<u> </u>	- C7 (IVI		
7-16	10 YR 5/2	75	7.5 YR 3/4	15	C	M	SANDY L	OAM		
			10 YR 6/1	5	D	M				
-			10 YR 5/4	5	С	M	·			
ı										
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated San	d Grains. ² l	_ocation:	PL=Pore Lining, M=Matrix.	
Hydric So	il Indicators: (Applic	able to a	II I RRs unless of	herwise n	oted)		Indicator	s for Pro	oblematic Hydric Soils ³ :	
	osol (A1)	abic to a		Redox (S5			maicator		cm Muck (A10)	
	Epipedon (A2)			d Matrix (S					ed Parent Material (TF2)	
	K Histic (A3)			Mucky Mi	,) (except	MLRA 1)		ther (Explain in Remarks)	
	ogen Sulfide (A4)			Gleyed Ma		-	,		,	
	eted Below Dark Surfa	ce (A11)		ed Matrix (
Thick	Dark Surface (A12)		Redox	Dark Surfa	ace (F6)		³ Ind	icators of	hydrophytic vegetation and	
Sand	ly Muck Mineral (S2)		Deplet	ed Dark Su	urface (F	7)	W	etland hy	drology must be present,	
Sand	ly gleyed Matrix (S4)		Redox	Depressio	ns (F8)			unless di	isturbed or problematic.	
Restrictive	e Layer (if present):									
Type:										
iypc.										
Depth (incl	hes):					Hy	ydric Soil Pi	resent?	Yes <u>X</u>	No
Depth (incl Remarks:						Ну	ydric Soil Pi	resent?	Yes <u>X</u>	No
Depth (incl Remarks: HYDROLOG		:				Hy	ydric Soil Pi	resent?	Yes <u>X</u>	No
Depth (incl Remarks: HYDROLOG Wetland H	SY.		fficient)			Hy	ydric Soil Pi		Yes X I	
Depth (incl Remarks: HYDROLOG Wetland H	SY Hydrology Indicators:			Stained Le	eaves (B9			Sec	condary Indicators (2 or more rater-Stained Leaves (B9) (ML	equired)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		Water-	RA 1, 2, 4A)) (except		Sec W	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B)	equired)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3)		Water- MLF Salt Cr	A 1, 2, 4A ust (B11)	and 4B)	except		SecW	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10)	equired)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2) ration (A3) er Marks (B1)		Water- MLF Salt Cr Aquatio	AA 1, 2, 4A ust (B11) c Invertebr	and 4B)	9) (except)		Sec	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2)	required)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (any one indicators (A1) water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Water- MLF Salt Cr Aquatio Hydrog	RA 1, 2, 4A ust (B11) c Invertebraten Sulfide	and 4B) ates (B13 Odor (C	9) (except) 3)		Sec	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image	required)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3)		Water- MLF Salt Cr Aquatir Hydrog Oxidize	AA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizosp	and 4B) ates (B13 Odor (Coheres ald	(except)) 3) 1) ong Living		Sec	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image	required)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser	AA 1, 2, 4A ust (B11) c Invertebra gen Sulfide ed Rhizosp ace of Red	ates (B13 Odor (Coheres alduced Iron	except (a) (a) (b) (b) (c) (c)	Roots (C3)		condary Indicators (2 or more references (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3)	required)
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		Water- MLF Salt Cr Aquation Hydrog Oxidize Preser Recen	RA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Reduction	ates (B13 Odor (Coheres alduced Iron liction in F	except (except 3) 1) png Living (C4) Plowed Sc	Roots (C3)		condary Indicators (2 or more references (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron I Surfa	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recen Stunte	at A 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Redu t Iron Redu d or Stress	ates (B13 Odor (Coheres alouced Iron action in Fed Plants	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	Sec W Di Si X Gi X F/ Ri	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron I Surfa	dicators (any one indicators: dicators (any one indicators (A1) Water Table (A2) Fration (A3) Fr Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ace Soil Cracks (B6) dation Visible on Aerial	ator is su	Water- MLF Salt Cr Aquatir Hydrog Oxidize Preser Recen Stunter Other (RA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Reduction	ates (B13 Odor (C oheres ald uced Iron uction in F	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	Sec W Di Si X Gi X F/ Ri	condary Indicators (2 or more references (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concav	ator is su	Water- MLF Salt Cr Aquatir Hydrog Oxidize Preser Recen Stunter Other (at A 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Redu t Iron Redu d or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	Sec W Di Si X Gi X F/ Ri	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars	dicators (any one indicators: dicators (any one indicators (any one indicators) water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concavervations:	ator is su I Imagery ve Surfac	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recen Stunte (B7) Other (RA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Reda c Iron Reda d or Stress Explain in	and 4B) ates (B13 Odor (C oheres ald uced Iron uction in F ed Plants Remarks	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	Sec W Di Si X Gi X F/ Ri	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obse Surface W	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concav	ator is su Imagery ve Surfac	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recen Stunter ((B7) Other (e (B8)	at A 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Redu t Iron Redu d or Stress	and 4B) ates (B13 Odor (C oheres ald uced Iron uction in F ed Plants Remarks	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)	Sec W Di Si X Gi X F/ Ri	condary Indicators (2 or more rater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obse Surface W Water table Saturation	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concavervations: //ater Present? Yes Present? Yes	I Imagery ve Surfac	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recen Stunter ((B7) Other (to X No X Dept No X Dept	RA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Reda c Iron Reda d or Stress Explain in	and 4B) ates (B13 Odor (C oheres ald uced Iron uction in F ed Plants Remarks	P) (except) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3)		condary Indicators (2 or more reference Stater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A	required) RA 1, 2,
Depth (incl Remarks: HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars Field Obse Surface W Water table Saturation (includes of	dicators (any one indicators: dicators (any one indicators (any one indicators) (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (ace Soil Cracks) deter Present? Vestign (Ace Soil Cracks) Vegetated Concaver (Ace Present) Vestign (Ace Soil Cracks) Vestign (Ace S	I Imagery ve Surfaces	Water- MLF Salt Cr Aquatic Hydrog Oxidize Preser Recen Stunter ((B7) Other (to X No X Dept No X Dept	RA 1, 2, 4A ust (B11) c Invertebraten Sulfide ed Rhizospace of Redu t Iron Redu d or Stress Explain in h (inches) h (inches)	and 4B) ates (B13 Odor (C oheres ald uced Iron uction in F eed Plants Remarks	o) (except) 1) 1) png Living (C4) Plowed So s (D1) (LF	Roots (C3) pils (C6) RR A) Wetland I	Sec W Di Si X G Si X F/ Fr	condary Indicators (2 or more refater-Stained Leaves (B9) (ML 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Image eomorphic Position (D2) rallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR Arest)	required) RA 1, 2, gery (C9)

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty			Sam	pling Date	e:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sam	npling Poir	nt:	38
Investigator(s):	B. Haddaway, T.Stou	t		Section	n, Township	, Range:	S2, T41	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	PFO/SSC		SI	ope (%):	0-1%
Subregion (LRR):	Northwest Forests an	d Coast (LRR A) Lat:	45.850967°	•		Long:	122.77460)6°		Datum	: WGS 84
Soil Map Unit Nam								ssification:	none			
Are climatic / hydro	ologic conditions on the	e site typical for t	his time of y	/ear?	Yes 2	X	No		_(If no, e	explain in	Remark	s)
Are Vegetation	, Soil,	, or Hydrology		significantly	disturbed?	Are "N	lormal C	ircumstand	es" Pres	sent? Ye	es <u>X</u>	_No
Are Vegetation	, Soil,	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers ii	n Remark	s.)	
SUMMARY OF	FINDINGS - Atta	ch site map s	showing	sampling	point loca	ations, t	ransed	ts, impo	rtant f	eatures	, etc.	
Hydrophytic Veget	tation Present?	Yes X No)									
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	Х	No			
Wetland Hydrolog	y Present?	Yes X No		WILLIIII	a wellanu:		-					
Remarks:												
VEGETATION												
Tree Stratum (II	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?			t workshe				
1. Fraxinus latifo	•		5	Y	FACW			ACW, or F		4		(A)
2.	···					Total Nu	ımber of	Dominant	_			_(' ')
3.						Species	Across	All Strata:		4		(B)
4.						Percent	of Domi	nant Speci	es			- · ·
		Total Cover:	5					ACW, or F		100	%	_(A/B)
Shrub Stratum					E4 014/			ex Worksh	eet:			
1. Salix lasiandra	9		10	Y	FACW		tal % Co		- , —	Multiply		_
2. 3.							-			0		_
4.					· 	FAC spe	-			0		_
5.					·							_
J		Total Cover:	10		· ——	UPL spe			_^ -	0		_
Herb Stratum		. 0.0					-	0	_			(B)
Phalaris arund	dinacea		40	Υ	FACW		_	dex = B/A =				_` ′
2. Galium trifidur	n		1		FACW							_
3. Alopecurus pr	atensis		40	Υ	FAC	Hydrop	hytic Ve	getation Ir	ndicator	s:		
4. Agrostis capill	aris		10	-	FAC		1 - Rap	id Test for	Hydroph	ıytic Vege	tation	
5. <u>Lysimachia nι</u>	ımmularia		8		FACW	X	2 - Don	ninance Te	st is >50)%		
6. Rumex crispu	s		2		FAC	#####	3 - Prev	valence Inc	dexis ≤3	3.0 ¹		
7. Geranium diss	sectum		1		NOL		4 - Mor	phological	Adaptati	ion1 (Prov	ide supr	orting
8								Remarks		•	neet)	
					· ——			land Non-\			1	
					·		Probler	natic Hydro	ophytic V	/egetation	' (Explai	in)
11		T.1.1.0.	400									
\\\ d \\': C	Name &	Total Cover:	102			1						
Woody Vine S	<u>stratum</u>							dric soil an			gy must	
1. 2.									_ 01 p101			
		Total Cover:	0		·	Hydrop						
% Ra	re Ground in Herb Stra			otic Crust	0	Vegetat Present			Yes X	,	No	
Remarks:	5.55.16 11 11015 0114		20.01 01 01	01400					. 55 <u>/</u>	==-		

	scription. (Describe	to the dep	oth needed to doc	ument tr	ie indicat	or or co	onfirm the absence of	of indicators.)
Depth	Matrix		Red	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	- Texture	Remarks
0-3	10 YR 4/2		10 Y R3/4	5	C	М	SILT LOAM	
3-6	10 YR 5/2		7.5 YR 4/4	10	С	М	SILT LOAM	
-			7.5 YR 3/4	5	C	M		
			10 YR 5/1	5	D	M		_
6-12	10 YR 5/1	68	7.5 YR 4/4	20	C	M	SILT LOAM	
<u> </u>			7.5 YR 3/3	10	C	M		_
			7.5 YR 4/4	2		PL		
12-16	10 YR 6/2		10 YR 4/4	5	C	M	SILT LOAM	-
12-10	10 110 0/2		7.5 YR 5/6	10	C	M	OILT LOAW	
			7.5 YR 5/6	5	C	PL		
¹ Type: C=0	Concentration, D=Depl						nd Grains. ² Location	: PL=Pore Lining, M=Matrix.
Hydric Soi	I Indicators: (Applica	able to all	LRRs, unless oth	nerwise n	oted.)		Indicators for Pro	oblematic Hydric Soils ³ :
-	sol (A1)			Redox (S			2	cm Muck (A10)
	Epipedon (A2)			d Matrix (Red Parent Material (TF2)
	Histic (A3)					(excep	t MLRA 1) C	Other (Explain in Remarks)
	ogen Sulfide (A4)			-	atrix (F2)		, <u>—</u>	,
	ted Below Dark Surfac	e (A11)		d Matrix (. ,			
	Dark Surface (A12)	()		Dark Surf			³ Indicators o	f hydrophytic vegetation and
	y Muck Mineral (S2)				urface (F7			ydrology must be present,
	y gleyed Matrix (S4)			Depressio	•			listurbed or problematic.
	Layer (if present):			300100010	(1 0)	1	4,11000 0	initial board of problematic.
Type:	, , ,							
Depth (inch	nes):					l H	lydric Soil Present?	Yes X No
Remarks:								
ixemaiks.								
HYDROLOG'	Y							
	Y ydrology Indicators:							
Wetland H		ator is suff	icient)					econdary Indicators (2 or more required)
Wetland H	ydrology Indicators:	ator is suff		Stained Le	eaves (B9)	(excep		econdary Indicators (2 or more required) Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland H	ydrology Indicators: dicators (any one indica	ator is suff	Water-S		eaves (B9)	(excep		
Wetland H	ydrology Indicators: dicators (any one indicators (A1)	ator is suff	Water-S			(excep	ot V	Vater-Stained Leaves (B9) (MLRA 1, 2,
Wetland H Primary Ind Surfac High \ Satura	ydrology Indicators: dicators (any one indicators (A1) water (A1) Water Table (A2) ation (A3)	ator is suff	Water-S MLR Salt Cru	A 1, 2, 4 <i>A</i> ıst (B11)			ot V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10)
Wetland H Primary Ind Surface High \ Satura Water	ydrology Indicators: dicators (any one indicators (A1) water (A1) Water Table (A2) ation (A3) r Marks (B1)	ator is suff	Water-S MLR Salt Cru Aquatic	A 1, 2, 4<i>A</i> Ist (B11) Invertebr	and 4B)		D V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B)
Wetland H Primary Ind Surface High \ Satura Water Sedim	ydrology Indicators: dicators (any one indicators (any one indicators (A1) water (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2)	ator is sufi	Water-S MLR Salt Cru Aquatic Hydroge	A 1, 2, 4 <i>A</i> ist (B11) Invertebren Sulfide	and 4B) rates (B13) e Odor (C1))	ot V D D X S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland H Primary Ind Surface High N Satura Water Sedim Drift D	ydrology Indicators: dicators (any one indicators (A1) Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)	ator is sufi	Water-S MLR Salt Cru Aquatic Hydroge X Oxidizer	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp	and 4B) rates (B13) e Odor (C1) oheres alo) ng Livin	ot V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Secomorphic Position (D2)
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Wetland H Primary Ind Surface High \ Satura Water Sedim Drift D Iron D	ydrology Indicators: dicators (any one indicators (any one indicators (Ed.)) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	ator is suff	Water-S MLR/ Salt Cru Aquatic Hydroge X Oxidized Presend Recent	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu	ates (B13) Odor (C1) Oheres alouced Iron uction in P) ng Livin C4) owed S	D V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Staturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) AC-Neutral Test (D5)
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Wetland H Primary Ind Surface High \ Satura Water Sedim Drift D Algal Iron D Surface Inund: Spars	ydrology Indicators: dicators (any one indicators ation (A3) or Marks (B1) onent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) or Soil Cracks (B6) ation Visible on Aerial and the indicators (and indicators)	Imagery (Water-S MLR/ Salt Cru Aquatic Hydroge X Oxidizer Presenc Recent Stunted B7) Other (E	A 1, 2, 4A list (B11) Invertebren Sulfide d Rhizospe de of Red Iron Redu or Stress	ates (B13) c Odor (C1) cheres alouced Iron uction in P) ng Livin C4) owed S	ot	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Eaturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Ehallow Aquitard (D3) EAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Wetland H Primary Ind Surface High \ Satura Water Sedim Drift D Algal Iron D Surface Inunda Spars Field Obse Surface Wa Water table Saturation (includes ca	ydrology Indicators: dicators (any one indicators ation (A3) In Marks (B1) In Marks (B1) In Marks (B2) In Marks (B3) In Marks (B3) In Marks (B4) In Marks (B4) In Marks (B4) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B1) In	Imagery (e Surface	Water-S MLR/ Salt Cru	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp de of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13) rates (C1) rates alor uced Iron uction in P sed Plants Remarks)) C4) owed S (D1) (L	V V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Seomorphic Position (D2) Shallow Aquitard (D3) AC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Trost-Heave Hummocks (D7)
Wetland H Primary Ind Surface High \ Satura Water Sedim Drift D Algal Iron D Surface Inund: Spars Field Obse Surface Wa Water table Saturation (includes ca	ydrology Indicators: dicators (any one indicators ation (A3) In Marks (B1) In Marks (B1) In Marks (B2) In Marks (B3) In Marks (B3) In Marks (B4) In Marks (B4) In Marks (B4) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B1) In	Imagery (e Surface	Water-S MLR/ Salt Cru	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp de of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13) rates (C1) rates alor uced Iron uction in P sed Plants Remarks)) C4) owed S (D1) (L	V V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Seomorphic Position (D2) Shallow Aquitard (D3) AC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Trost-Heave Hummocks (D7)
Wetland H Primary Ind Surface High \ Satura Water Sedim Drift D Algal Iron D Surface Inunda Spars Field Obse Surface Wa Water table Saturation (includes ca	ydrology Indicators: dicators (any one indicators ation (A3) In Marks (B1) In Marks (B1) In Marks (B2) In Marks (B3) In Marks (B3) In Marks (B4) In Marks (B4) In Marks (B4) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B6) In Marks (B1) In	Imagery (e Surface	Water-S MLR/ Salt Cru	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp de of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13) rates (C1) rates alor uced Iron uction in P sed Plants Remarks)) C4) owed S (D1) (L	V V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A and 4B) Orainage Patterns (B10) Ory-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Seomorphic Position (D2) Shallow Aquitard (D3) AC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Trost-Heave Hummocks (D7)

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sam	npling Date	:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sam	npling Point	t:	39
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S2, T41	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	PEMA		Slo	pe (%):	0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967°)		Long:	122.77460	6°		Datum	: WGS 84
Soil Map Unit Nam								ssification:	none			
Are climatic / hydro	ologic conditions on t	he site typical for t	his time of y	/ear?	Yes 2	<u> </u>	No		(If no,	explain in F	Remark	s)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	lormal Ci	ircumstanc	es" Pres	sent? Ye	s <u>X</u>	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ar	swers i	n Remarks	.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	ransec	ts, impo	rtant f	eatures,	etc.	
Hydrophytic Veget	ation Present?	Yes X No	1									
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	Х	No			
Wetland Hydrolog	y Present?	Yes X No		WILLIIII	a vvetianu:		-		_		_	
Remarks:	•											
VEGETATION												
			Absolute	Dominant	Indicator	Domina	nce Tee	t workshe	ot·			
T Ot			% Cover		Status?			nant Speci				
,	se scientific names.)				-			ACW, or F		•		(A)
1.						Total Nu	ımbor of	Dominant	_			_(A)
3.				-	· ———			All Strata:		2		(B)
J									_			_(D)
T		Total Cover:						nant Specie ACW, or F		100%	'	(A/B)
		Total Gover.				macras	ODL, I	7,077, 01 17		1007	<u> </u>	_(/ (/ D)
Shrub Stratum						Prevale	nce Inde	ex Worksh	eet:			
1							al % Cov			Multiply	bv:	
2.				-		•			x1 =	0	- ,	_
3.						FACW s	pecies		x2 =	0		_
4.						FAC spe	ecies		x3 =	0		_
5.						FACU s				0		<u> </u>
		Total Cover:	0			UPL spe	ecies		x5 =	0		_
Herb Stratum							_	0		0		_(B)
1. Phalaris arund			15		FACW	Preva	ence Inc	lex = B/A =		#DIV/0!		_
2. Geranium diss			5		NOL							
3. Alopecurus pr			40		FAC	Hydrop		getation In				
4. Agrostis capill			30	Y	FAC			id Test for			ation	
5. <u>Lysimachia nu</u>			5		FACW FAC	X X		ninance Te /alence Ind				
6. <u>Trifolium repei</u>			10		OBL	#####					ممريم مام	a a which as
7. Persicaria am	onibia		1		OBL			phological . Remarks o	•	•		orting
8. 9.					· ———			land Non-V		•	eet)	
4.0								natic Hydro			(Eynlai	in)
11.							1 TODICI	nado riyure	priyac	regetation	(Lxpiai	11)
		Total Cover:	106		· ——							
Woody Vine S	tratum					¹ Indicate	ors of hyd	dric soil and	l wetlan	d hydrolog	v must	
1.								ss disturbe			y maor	
2.						المراجات	hutio		-			
		Total Cover:	0		·	Hydrop Vegetat						
% Ba	re Ground in Herb St			otic Crust	0	Present			Yes X	N	ο	
Remarks:						I					•	
1												

-6 10 -8 10 -16 10 Type: C=Conc lydric Soil Inc Histosol (A Histic Epip Black Hist Hydrogen Depleted I	pedon (A2) tic (A3) Sulfide (A4)	10 YR 4 5 YR 3/ 10 YR 3 10 YR 3 10 YR 4 10 YR 2 7.5 YR	4/4 /3 2/2 3/4 4/6 2/2 4/6 ced Matrix, CS=		C C C C C C C C C C C C C C C C C C C	M M M M M M M M atted San	SILT LOA SILT LOA SILT LOA	M M	MIXED MATRIX/DARK ORGANIC MATERIAL COATING PEDS ORGANIC MATERIAL COATING PE
-6 10 -8 10 -16 10 Type: C=Conc ydric Soil Inc Histosol (A Histic Epip Black Hist Hydrogen Depleted I	O YR 4/2 O YR 4/2 O YR 5/2 Centration, D=Depletion, Fedicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	10 YR 4 5 YR 3/ 10 YR 2 10 YR 2 10 YR 2 7.5 YR RM=Reduc	/3 2/2 3/4 4/6 2/2 4/6 ced Matrix, CS= unless otherw	5 40 10 7 15 5 =Cover	C C C C	M M M M M	SILT LOA	.M	MATERIAL COATING PEDS
ydric Soil Inc Histosol (A Histic Epip Black Hist Hydrogen Depleted I	centration, D=Depletion, F dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	5 YR 3/ 10 YR 2 10 YR 2 10 YR 2 7.5 YR RM=Reduc	/3 2/2 3/4 4/6 2/2 4/6 ced Matrix, CS= unless otherw	5 40 10 7 15 5 =Cover	C C C C	M M M M M	SILT LOA	M	MATERIAL COATING PEDS
ydric Soil Inc Histosol (A Histic Epip Black Hist Hydrogen Depleted I	centration, D=Depletion, F dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	10 YR 2 10 YR 3 10 YR 4 10 YR 2 7.5 YR RM=Reduc	2/2 3/4 4/6 2/2 4/6 ced Matrix, CS=	40 10 7 15 5 =Cover	C C C C	M M M M	SILT LOA		MATERIAL COATING PEDS
ydric Soil Inc Histosol (A Histic Epip Black Hist Hydrogen Depleted I	centration, D=Depletion, F dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	10 YR 3 10 YR 4 10 YR 2 7.5 YR RM=Reduc	3/4 4/6 2/2 4/6 ced Matrix, CS=	10 7 15 5 =Cover	C C C	M M M	SILT LOA		MATERIAL COATING PEDS
ydric Soil Ind Histosol (A Histic Epip Black Hist Hydrogen Depleted I	centration, D=Depletion, F dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	10 YR 4 10 YR 2 7.5 YR RM=Reduc	4/6 2/2 4/6 ced Matrix, CS=	7 15 5 =Cover	C C	M M M		M	
ydric Soil Ind Histosol (A Histic Epip Black Hist Hydrogen Depleted I	centration, D=Depletion, F dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	10 YR 2 7.5 YR RM=Reduc	2/2 4/6 ced Matrix, CS=	15 5 -Cove	C C	M M		<u>M</u>	ORGANIC MATERIAL COATING PL
ydric Soil Ind Histosol (A Histic Epip Black Hist Hydrogen Depleted I	dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	7.5 YR RM=Reduc	4/6 ced Matrix, CS=	5 Cove	С	М			ORGANIC MATERIAL COATING PI
ydric Soil Ind Histosol (A Histic Epip Black Hist Hydrogen Depleted I	dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)	RM=Reduc	ced Matrix, CS=	-Cove					
ydric Soil Ind Histosol (A Histic Epip Black Hist Hydrogen Depleted I	dicators: (Applicable to A1) pedon (A2) tic (A3) Sulfide (A4)		unless otherw		red or Co.	ated San			B. B. III. MAN.
Histosol (A Histic Epip Black Hist Hydrogen Depleted I	A1) pedon (A2) tic (A3) Sulfide (A4)	all LRRs,		vise n			iu Giailis. Li	ocalion	. PL-Pore Liming, M-Maurx.
Histic Epip Black Hist Hydrogen Depleted I	pedon (A2) tic (A3) Sulfide (A4)	_	Sandy Red		oted.)		Indicators	s for Pr	roblematic Hydric Soils ³ :
Black Hist Hydrogen Depleted I	tic (A3) Sulfide (A4)	_		ox (S5	5)			2	2 cm Muck (A10)
Hydrogen Depleted I	Sulfide (A4)	_	Stripped Ma	atrix (S	36)			F	Red Parent Material (TF2)
Depleted I	` '		Loamy Muc	cky Miı	neral (F1)	(except	MLRA 1)		Other (Explain in Remarks)
_ '	D. D. D. C. (A.4.		Loamy Gley	yed Ma	atrix (F2))			
Thick Dark	Below Dark Surface (A11)	Depleted M	-					
	k Surface (A12)		Redox Dark	k Surfa	ace (F6)		³ Indi	cators o	of hydrophytic vegetation and
_ Sandy Mu	ıck Mineral (S2)		Depleted D	ark Sı	urface (F7	')	Wŧ	etland h	nydrology must be present,
Sandy gle	eyed Matrix (S4)	_	Redox Dep	ressio	ns (F8)		ı	unless (disturbed or problematic.
strictive Lay	yer (if present):								
pe:									
pth (inches):						н	lydric Soil Pre	esent?	Yes X No
ROLOGY	ala ana la alia ata ana								
•	ology Indicators: ors (any one indicator is s	ufficient)						9,	econdary Indicators (2 or more require)
	<u> </u>	unicient)	Water-Stair	nod Lo) (oveen			econdary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2
_ Surface W	er Table (A2)	_			aves (B9		,L	v	4A and 4B)
Saturation			Salt Crust (anu 4D)			— ,	,
_			`	` ′	atos (D12	, ,			Orainage Patterns (B10)
_ Water Ma		-	Aquatic Inventor Aqu						Ory-Season Water Table (C2)
_	Deposits (B2)	_	_ · ·		,	,	a Dooto (C2)		Saturation Visible on Aerial Imagery (CS
_ Drift Depo		_				-	g Roots (C3)		Geomorphic Position (D2)
_ ~	or Crust (B4)	_	Presence o				raila (CC)		Shallow Aquitard (D3)
_ Iron Depo	` '	_	Recent Iron						FAC-Neutral Test (D5)
	Soil Cracks (B6)	— (DZ)	Stunted or S				RR A)		Raised Ant Mounds (D6) (LRR A)
_ Inundation	n Visible on Aerial Imager		Other (Expl	ain in	Remarks)		— '	Frost-Heave Hummocks (D7)
	Vegetated Concave Surfa	ce (B8)							
		No. V	Donth (in	ahaa)					
eld Observat		No X		,					
eld Observat urface Water		INU X	Denth (in						
Sparsely \ eld Observat urface Water /ater table Pre aturation Pres	esent? Yes	No X No X	- 1 - 1				Wetland H	ydrolog	gy Present? Yes X No
eld Observat urface Water ater table Pre aturation Pres icludes capilla	esent? Yes sent? Yes ary fringe)	No X	Depth (in	ches):	:				gy Present? Yes X No
eld Observat urface Water ater table Pre aturation Pres ocludes capilla	esent? Yes	No X	Depth (in	ches):	:	spections			gy Present? Yes X No

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty		Sampling [Date:	7/18/2015
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling F	Point:	40
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	DLC37, T4N, R1\	N		
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): PEMA		Slope (%):	: 0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°	1		Long: 122.77460	06°	Datum	n: WGS 84
Soil Map Unit Nam	ne: Sauvie silt le	oam					NWI Classification	: none		
Are climatic / hydro	ologic conditions on t	he site typical for the	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remark	s)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Iormal Circumstan	ces" Present?	Yes X	No
Are Vegetation		 , or Hydrology					eded, explain any a			
SUMMARY OF	FINDINGS - At	tach site map s	howing	sampling	point loca	ations, t	ransects, impo	ortant featur	es, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No		1.4.0						
Hydric Soil Presen	t?	Yes X No			ampled Are a Wetland?		Yes	No X		
Wetland Hydrology	y Present?	Yes No		Within	a vvetianu:					
Remarks: Vegetati	ion community is typ	ical of rinarian/floor	Inlain fores	ts featuring a	a mix of unla	and and w	etland plants adar	ted to fluctuatir	na hydrologi	ical
arge dam-regulate feature wetland hy	oils underlie much of ed rivers (Columbia a drology.		•		•					
VEGETATION			About	Description	L. P. de	Damina	naa Taat warkab			
			Absolute % Cover	Dominant Species?	Indicator Status?		ince Test worksho			
Tree Stratum (Us	se scientific names.)		76 COVEI	opecies:	Status		of Dominant Spec OBL, FACW, or F			
1		_							2	(A)
							umber of Dominant Across All Strata:		_	
3						Species	ACIOSS All Strata.		2	(B)
4							of Dominant Spec			
		Total Cover:	0			That Are	e OBL, FACW, or F	·AC:1	100%	(A/B)
Chruh Ctrotum						Brovolo	nce Index Worksl	hooti		
Shr <u>ub Stratum</u> 1.							tal % Cover of:		tiply by:	
<u> </u>						OBL spe		x1 =	tiply by:	_
3.		-				FACW s		^1 = x2 =	0	_
						FAC spe	•	x3 =	0	_
·· 5.					. ——	FACU s		x4 =	0	_
		Total Cover:	0			UPL spe		x5 =	0	_
Herb Stratum						Column		(A)	0	(B)
1. Agrostis capilla	aris		40	Υ	FAC	Preva	lence Index = B/A :	= #DI\	//0!	
2. Leucanthemur			5		FACU					_
3. Alopecurus pra	atensis		30	Υ	FAC	Hydrop	hytic Vegetation I	ndicators:		
4. Geranium diss	sectum		5		NOL		1 - Rapid Test for	Hydrophytic Ve	egetation	
5. Ranunculus re	epens		5		FAC	X	2 - Dominance Te	est is >50%		
6. Trifolium reper	าร		10		FAC	#####	3 - Prevalence In	dex is ≤3.0 ¹		
7. Holcus lanatus	3		5		FAC		4 - Morphological	Adaptation1 (P	rovide sup	porting
Cirsium arvens	se		5		FAC		data in Remarks	or on a separat	e sheet)	
9. <u>Lolium perenn</u>			5		FAC		5 - Wetland Non-			
							Problematic Hydr	ophytic Vegetat	tion¹ (Expla	in)
11										
		Total Cover:	110			1				
Woody Vine S	<u>tratum</u>						ors of hydric soil an ent, unless disturbe			
1					-	ne hiese	ziit, uiiiess uistuibe	a or problemat		
2		Total Cause			. ———	Hydrop	•			
0/ Da	ro Ground in Horb Co	Total Cover:			0	Vegetat		Voc V	No	
	re Ground in Herb St	uatum <u> </u>	Cover of Bl	ouc Crust	U	Present	. f	Yes X	No	
Remarks:										

SOIL								Samp	oling Point:	40
Profile De	scription: (Describ	oe to the de	pth needed to d	ocument th	ne indicat	tor or co	onfirm the abse	ence of indic	ators.)	
Depth	Matrix			Redox Featu	ıres					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture		Remark	(8
0-8	10 YR 3/2	90	10 YR 3/4		C	M	SILT LOAN		reman	10
00	10 111 0/2		10 YR 4/2	<u> </u>	D	M	OILT LOT			
8-16	10 YR 4/2	95	10 YR 4/6	<u> </u>			SILT LOAN			
0 10	10 111 472		10 11(4/0				OILT LOT			
						-				
-						-				
					1					
							_			
¹ Type: C=	Concentration, D=D	epletion, RN	/=Reduced Matri	x, CS=Cove	ered or Co	oated Sa	ind Grains. ² Lo	cation: PL=F	ore Lining, M=Mat	rix.
Hydric So	il Indicators: (App	licable to a	II LRRs, unless	otherwise n	oted.)		Indicators	for Problem	atic Hydric Soils ³	:
Histo	sol (A1)		Sand	ly Redox (S	5)		-	2 cm M	uck (A10)	
Histic	Epipedon (A2)		Strip	ped Matrix (S6)		<u>-</u>	Red Pa	rent Material (TF2)	
Black	(Histic (A3)		Loan	ny Mucky Mi	ineral (F1)) (excep	ot MLRA 1)	Other (E	Explain in Remarks	s)
Hydro	ogen Sulfide (A4)		Loan	ny Gleyed M	latrix (F2))				
X Deple	eted Below Dark Sur	face (A11)	Depl	eted Matrix	(F3)					
Thick	Dark Surface (A12))	Redo	ox Dark Surf	ace (F6)		³ Indic	ators of hydro	ophytic vegetation a	and
Sand	ly Muck Mineral (S2))	Depl	eted Dark S	urface (F	7)	we	tland hydrolog	gy must be present	,
Sand	ly gleyed Matrix (S4))	Redo	ox Depression	ons (F8)		u	nless disturbe	ed or problematic.	
Restrictive	e Layer (if present)	:								
Type:										
Depth (incl	hes):					1	Hydric Soil Pre	sent?	Yes X	No
HYDROLOG										
	lydrology Indicator									
	dicators (any one inc	dicator is su							ry Indicators (2 or r	
	ace Water (A1)			er-Stained Lo			pt		Stained Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			LRA 1, 2, 4	A and 4B))			and 4B)	
	ration (A3)			Crust (B11)	. (5.4	٥,	-		je Patterns (B10)	(00)
	er Marks (B1)			tic Inverteb			-		ason Water Table (
	ment Deposits (B2)			ogen Sulfide			Dt- (OO)		on Visible on Aeria	. ,
	Deposits (B3)					•	ng Roots (C3)		rphic Position (D2)	
	Mat or Crust (B4)			ence of Red			Soile (C6)		Aquitard (D3) eutral Test (D5)	
	Deposits (B5) ace Soil Cracks (B6)			ent Iron Red ted or Stress					Ant Mounds (D6) (I DD A)
	dation Visible on Aer			r (Explain in		. , .	-KK A)		eave Hummocks (I	
	sely Vegetated Cond			i (Explaiii iii	IXCIIIaika	> <i>)</i>	-	1103(-11	eave Hummocks (I	51)
Field Obse							1			
		'es	No X De	pth (inches)):					
Water table		'es		epth (inches)						
Saturation		'es	No X De	pth (inches)):		Wetland Hy	drology Pre	sent? Yes	No <u>X</u>
	capillary fringe) corded Data (stream	n gauge, mo	nitoring well, aeri	al photos, pi	revious in	spection	ns), if available:			
		J. 232,o	3 3, 4011	,se, pi		1	,, 2. 2			
Remarks:										

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	41
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	DLC37	, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		-				PEMA		Slope (%)	: <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°)			122.774606		Datun	n: WGS 84
Soil Map Unit Nam								ssification:			
Are climatic / hydro	ologic conditions on t				_						
Are Vegetation	, Soil										No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any ans	wers in Rer	narks.)	
SUMMARY OF	FINDINGS - Att	tach site map s	showing	sampling	point loca	ations, 1	ransec	cts, impor	tant featu	res, etc.	
Hydrophytic Veget	ation Present?	Yes X No									
Hydric Soil Presen		Yes X No			ampled Are	а	Yes	Х	No		
Wetland Hydrolog		Yes x No		within	a Wetland?		•		-		
Remarks:	,										
VEGETATION											
VEGETATION			A1 1 1 .	D	L. P. L.	Damina	T	.4a.ulrahaa	4.		
			Absolute % Cover	Dominant Species?	Indicator Status?			t workshee			
,	se scientific names.)							nant Specie ACW, or FA			
1									·	3	(A)
								Dominant All Strata:		•	(D)
3.										3	(B)
4		Tatal Carran						nant Specie		4000/	(A /D)
		Total Cover:				That Are	OBL, F	ACW, or FA	C:	100%	(A/B)
Shrub Stratum						Provalo	nco Inde	ex Workshe	ot:		
1							tal % Co			ultiply by:	
2.								vei oi.		0	_
3.						•				0	
4.						FAC spe				0	_
5.						•				0	_
		Total Cover:	0			UPL spe			x5 =	0	
Herb Stratum						Column	Totals:	0		0	(B)
1. Phalaris arund	dinacea		25	Υ	FACW			dex = B/A =		IV/0!	
2. <u>Lysimachia nu</u>	ımmularia		30	Υ	FACW						
3. Alopecurus ge	eniculatus		25	Υ	OBL	Hydrop	hytic Ve	getation Inc	licators:		
4. Galium trifidur	n		3		FACW		1 - Rap	id Test for H	lydrophytic \	/egetation	
5. Eleocharis obt	tusa		2		OBL	X		ninance Tes			
6. Mentha arven	sis		5		FACW	#####		valence Inde			
7								phological A	•		porting
								Remarks or	•	,	
								tland Non-Va			
							Probler	matic Hydrop	hytic Veget	ation' (Expla	ain)
11											
\\\ d \\ \\ C	to the second	Total Cover:	90			1					
Woody Vine S	<u>tratum</u>							dric soil and ss disturbed			
1 2.					-			oo alolulbeu	or broniering		
<u></u>		Total Cover:	0			Hydrop	-				
% Pa	re Ground in Herb St			otic Crust	0	Vegetat Present		,	Yes X	No	
Remarks:	.c Ground in Helb St		COACI OI DI	one orust	<u> </u>	1 163611			. 53 /	_ 110	
inciliaiks.											

S = = 11			-Printingeral				. 51 5511	au	JULIUE UI	f indicators.)		
Depth	Matrix	0/			dox Featu		. 2					
inches)	Color (moist)	<u>%</u>	Color		<u>%</u>	Type ¹	Loc ²	Textu			Remarks	
)-4	10 YR 5/2	88	7.5 YR 4			<u>C</u>	M	SILT LO	AM			
. 40	40.1/2.0/0		10 YR 6/		5	<u>D</u>	M	011.71.0				
l-16	10 YR 6/2	73	7.5 YR 4			<u>C</u>	M	SILT LO	AM_			
			7.5 YR 4		5	<u>C</u>	PL					
			10 YR 6/	1	2	D	M	· 				
	-											
ype: C=	Concentration, D=Dep	oletion, RN	M=Reduce	d Matrix,	CS=Cove	red or Coa	ited Sand	d Grains. ²	Location:	PL=Pore Lin	ing, M=Matrix	-
ydric So	il Indicators: (Applic	able to a	ıll LRRs, u	nless ot	herwise n	oted.)		Indicato		oblematic Hy		
	sol (A1)			Sandy	Redox (S5	5)				cm Muck (A1	•	
Histic	Epipedon (A2)			Strippe	d Matrix (S	56)			R	ted Parent Ma	terial (TF2)	
_ Black	(Histic (A3)			Loamy	Mucky Mi	neral (F1)	(except	MLRA 1)	0	ther (Explain i	in Remarks)	
Hydro	ogen Sulfide (A4)			Loamy	Gleyed M	atrix (F2)						
Deple	eted Below Dark Surfa	ce (A11)	X	Deplete	ed Matrix (F3)						
Thick	Dark Surface (A12)			Redox	Dark Surfa	ace (F6)		³ Inc	dicators o	f hydrophytic v	vegetation and	d
Sand	ly Muck Mineral (S2)			Deplete	ed Dark Su	ırface (F7)	٧	vetland h	ydrology must	be present,	
Sand	ly gleyed Matrix (S4)			Redox	Depressio	ns (F8)			unless d	listurbed or pro	oblematic.	
estrictive	e Layer (if present):											
/pe:												
epth (incl	hes):						Ну	ydric Soil P	resent?	<u> </u>	/es <u>X</u>	No
epth (incl	hes):						Ну	/dric Soil P	resent?	,	/es <u>X</u>	No
epth (incl							Ну	ydric Soil P	resent?	<u> </u>	/es <u>X</u>	No
epth (incl narks:							Ну	ydric Soil P	resent?	Y	/es <u>X</u>	No
epth (incl narks: DROLOG	sy.		fficient)				Ну	ydric Soil P		condary Indica		
PROLOG etland H	SY Hydrology Indicators:		fficient)	Water-	Stained Le	eaves (B9)			Se		ators (2 or mo	ore required
epth (incl narks: PROLOG etland H imary Ind Surfa	SY Hydrology Indicators: dicators (any one indic		fficient)	-	Stained Le				Se	condary Indica	ators (2 or mo Leaves (B9) (ore required
PROLOG etland H imary Ind Surfa High	Hydrology Indicators: dicators (any one indicators (A1)		fficient)	MLR					SeW	condary Indica Vater-Stained	ators (2 or mo Leaves (B9) (ore required
PROLOG etland H imary Ind Surfa High Satur	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2)		fficient)	MLR Salt Cr	RA 1, 2, 4A	and 4B)	(except		SeW	condary Indica Vater-Stained 4A and 4B)	ators (2 or mo Leaves (B9) (rns (B10)	ore require
ROLOG etland H Surfa Surfa Surfa High Satur Wate	Hydrology Indicators: dicators (any one indicators (A1) water Table (A2) ration (A3) er Marks (B1)		fficient)	MLR Salt Cr Aquatio	A 1, 2, 4A ust (B11)	and 4B)	(except		SeWD	condary Indica Vater-Stained 4A and 4B) Prainage Patter	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2	ore required MLRA 1, 2
PROLOG etland H imary Ind Surfa High Satur Wate Sedir	dicators: dicators: dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) Fation (A3) Fation (A3) Fation (B1) The Marks (B1) The Marks (B2)		fficient)	MLR Salt Cr Aquation Hydrog	AA 1, 2, 4A ust (B11) Invertebren Sulfide	and 4B) ates (B13) Odor (C1	(except		Se	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa Paturation Visit	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial II	ore required MLRA 1, 2
PROLOG etland H imary Ind Surfa High Satur Wate Sedir Drift I	dicators: (any one indicators: dicators (any one indicators (any one indicators) (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3)			MLR Salt Cr Aquation Hydrog Oxidize	AA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp	and 4B) ates (B13 Odor (C1 oheres alo	(except			econdary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa Paturation Visib Recomorphic Po	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2)	ore required MLRA 1, 2
DROLOG Vetland Hrimary Ind Surfa High Satur Wate Sedir Drift I	dicators (any one indicators: dicators (any one indicators (any one indicators) (any one indi			MLR Salt Cr Aquation Hydrog Oxidize Presen	AA 1, 2, 4A ust (B11) Invertebraten Sulfide ed Rhizospace of Red	ates (B13) Odor (C1) Oheres alo	(except)) ng Living (C4)	Roots (C3)		econdary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa Faturation Visib Geomorphic Po	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In position (D2) rd (D3)	ore required MLRA 1, 2
PROLOG Cetland H Commany Inc Surfa High Satur Wate Sedir Drift I Algal Iron [Aydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)			MLR Salt Cr Aquation Hydrog Oxidize Present Recent	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu	and 4B) ates (B13 Odor (C1 wheres alo uced Iron uction in P	(except)) ng Living (C4) lowed Sc	Roots (C3)	Se W D D S X G S X F.	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wastartation Visite Geomorphic Positallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial II position (D2) rd (D3) est (D5)	ore required MLRA 1, 2 2) magery (Cs
PROLOG etland H imary Ind Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa	Aydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	X	MLR Salt Cr Aquation Hydrog Oxidize Present Recent	at A 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3)	Se W D D D S X G X F R	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa aturation Visib Geomorphic Po Phallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2) rd (D3) est (D5) unds (D6) (LR	ore required MLRA 1, 2 2) magery (Care
PROLOG etland H imary Ind Surfa High Satur Vate Sedir Drift I Algal Iron [Surfa	Aydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	ator is su	X 	MLR Salt Cr Aquation Hydrog Oxidize Present Recent	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Redu	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3)	Se W D D D S X G X F R	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wastartation Visite Geomorphic Positallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2) rd (D3) est (D5) unds (D6) (LR	ore required MLRA 1, 2 2) magery (C
DROLOG Jetland H rimary Ind Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars	dicators: (any one indicators: dicators (any one indicators (any one indicators) (any one ind	ator is su	X 	MLR Salt Cr Aquation Hydrog Oxidize Present Recent	at A 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3)	Se W D D D S X G X F R	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa aturation Visib Geomorphic Po Phallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2) rd (D3) est (D5) unds (D6) (LR	MLRA 1, 2 2) magery (Cs
DROLOG Vetland H rimary Ind Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars ield Obseurface W	dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) Tation (A3) Tati	I Imagery	X 	MLR Salt Cr Aquation Hydrog Oxidize Present Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr den Sulfide ed Rhizosp de of Red it Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks)	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3)	Se W D D D S X G X F R	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa aturation Visib Geomorphic Po Phallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2) rd (D3) est (D5) unds (D6) (LR	MLRA 1, 2 2) magery (CS
PROLOGICATION OF THE PROPERTY	dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) Tation (A3) Tati	Imagery ve Surfaces s X	(B7) e (B8)	MLR Salt Cr Aquation Hydrog Oxidize Present Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr den Sulfide ed Rhizosp de of Red it Iron Redu d or Stress Explain in h (inches)	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks)	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3) pils (C6) RR A)	Se W D D S X S X F. R F	econdary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wasturation Visib Geomorphic Posthallow Aquitar AC-Neutral Testaised Ant Mourost-Heave Hu	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial II osition (D2) rd (D3) est (D5) unds (D6) (LR ummocks (D7	MLRA 1, 2 2) magery (Cs
PROLOG etland H imary Ind Surfa High Satur Wate Sedir Drift I Algal Iron [Surfa Inunc Spars eld Obso	Aydrology Indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dication Visible on Aerial sely Vegetated Concavery ervations: later Present? Yes e Present? Yes Present? Yes	I Imagery	(B7)e (B8)	MLR Salt Cr Aquation Hydrog Oxidize Present Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr den Sulfide ed Rhizosp de of Red it Iron Redu d or Stress Explain in	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks)	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3) pils (C6) RR A)	Se W D D S X S X F. R F	condary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wa aturation Visib Geomorphic Po Phallow Aquitar AC-Neutral Te	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial In osition (D2) rd (D3) est (D5) unds (D6) (LR	ore required MLRA 1, 2 2) magery (Care
PROLOGE etland Himary Inc. Surfa High Satur Wate Sedir Drift I Surfa Inc. North Satur North Satur North Inc. Surfa Inc.	dicators (any one indicators: dicators (any one indicators (any one indicators)	I Imagery ve Surface s X X	(B7) e (B8) No No	MLR Salt Cr Aquation Hydrog Oxidize Present Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr den Sulfide ed Rhizosp de of Red it Iron Redu d or Stress Explain in h (inches) h (inches)	ates (B13 Odor (C1 oheres alo uced Iron uction in P red Plants Remarks)	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3) pils (C6) RR A) Wetland	Se W D D S X S X F. R F	econdary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wasturation Visib Geomorphic Posthallow Aquitar AC-Neutral Testaised Ant Mourost-Heave Hu	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial II osition (D2) rd (D3) est (D5) unds (D6) (LR ummocks (D7	mLRA 1, 2 magery (Carrelle A)
PROLOG etland H imary Inc Surfa High Satur Wate Sedir Algal Iron [Surfa Inunc Spars eld Observation attriation includes of	Aydrology Indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dication Visible on Aerial sely Vegetated Concavery ervations: later Present? Yes e Present? Yes Present? Yes	I Imagery ve Surface s X X	(B7) e (B8) No No	MLR Salt Cr Aquation Hydrog Oxidize Present Recent Stunted Other (RA 1, 2, 4A ust (B11) c Invertebr den Sulfide ed Rhizosp de of Red it Iron Redu d or Stress Explain in h (inches) h (inches)	ates (B13 Odor (C1 oheres alo uced Iron uction in P red Plants Remarks)	(except)) ng Living (C4) lowed Sc (D1) (LR	Roots (C3) pils (C6) RR A) Wetland	Se W D D S X S X F. R F	econdary Indica Vater-Stained 4A and 4B) Prainage Patter Pry-Season Wasturation Visib Geomorphic Posthallow Aquitar AC-Neutral Testaised Ant Mourost-Heave Hu	ators (2 or mo Leaves (B9) (rns (B10) ater Table (C2 ble on Aerial II osition (D2) rd (D3) est (D5) unds (D6) (LR ummocks (D7	mLRA 1, 2 2) magery (C

Project/Site: Plas Newydd Farm		City/County:	Clark Cou	nty Sampling Date: 7/18/201
Applicant/Owner: Plas Newydd Farm				State: WA Sampling Point: 4
Investigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: DLC37, T4N, R1W
Landform (hillslope, terrace, etc.): Floodplai	n	_ Local re	elief (concav	e, convex, none): PEMA Slope (%): 0-1%
Subregion (LRR): Northwest Forests and Coast	(LRR A) Lat:	45.850967°)	Long: 122.774606° Datum: WGS 84
Soil Map Unit Name: Sauvie silty clay loam				NWI Classification: none
Are climatic / hydrologic conditions on the site typic	cal for this time of	year?	Yes	X No (If no, explain in Remarks)
Are Vegetation , Soil , or Hydro	ology	significantly	disturbed?	Are "Normal Circumstances" Present? Yes X No
Are Vegetation, Soil, or Hydro				
SUMMARY OF FINDINGS – Attach site	map showing	sampling	point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X	No	1. 4. 6		
Hydric Soil Present? Yes X	No		ampled Are a Wetland?	
Wetland Hydrology Present? Yes	No X	Within	a Welland:	<u> </u>
condtion. Hydric soils underlie much of the site, so	me of which may h	nave formed	prior to dam	and and wetland plants adapted to fluctuating hydrological n construction, assumed due to its location at the confluence of ater level seasonally and annually; however, the plot does not
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: 2 (A)
2.		-		Total Number of Dominant
3.				Species Across All Strata: 3 (B)
4.				Percent of Dominant Species
Total	Cover: 0			That Are OBL, FACW, or FAC:(A/B)
Herb Stratum 1. Agrostis capillaris 2. Leucanthemum vulgare	Cover: 0 40	Y	FAC FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species x1 = 0 FACW species x2 = 0 FAC species x3 = 0 FACU species x4 = 0 UPL species x5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = #DIV/0!
3. Alopecurus pratensis	10		FAC	Hydrophytic Vegetation Indicators:
4. Geranium dissectum			NOL	1 - Rapid Test for Hydrophytic Vegetation
5. Phalaris arundinacea			FACW	X 2 - Dominance Test is >50%
5. Trifolium repens			FAC	##### 3 - Prevalence Index is ≤3.01
7. Holcus lanatus		Y	FAC	4 - Morphological Adaptation1 (Provide supporting
8. Anthoxanthum odoratum		Y	FACU	data in Remarks or on a separate sheet)
D. Lolium perenne	10_	-	FAC	5 - Wetland Non-Vascular PlantS2
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Total Woody Vine Stratum 1.	Cover: 136			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Hydrophytic
	Cover: 0			Vegetation
% Bare Ground in Herb Stratum	0 % Cover of Bi	otic Crust	0	Present? Yes X No
Remarks:				_
Remarks:				

SOIL								Sampling	Point:	42
Profile De	escription: (Describe	to the de	pth needed to doc	ument th	e indicat	or or c	confirm the abs	ence of indicator	rs.)	
Depth	Matrix		Red	dox Featu	ıres					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc	² Texture	e	Remarks	3
0-8	10 YR 3/2	85	7.5 YR 4/6	10	С	M	SILT LOA	<u> </u>		
			10 YR 5/2	5	D	М				
6-16	10 YR 5/2	80	7.5 YR 4/4	10	С	M	SILT LOA	<u> </u>		
	_		7.5 YR 4/6	10	<u>C</u>	М				
1										
-										
¹ Type: C=	=Concentration, D=Depl	letion, RN	M=Reduced Matrix, C	S=Cove	red or Co	ated S	and Grains. ² L	ocation: PL=Pore	Lining, M=Matri	x.
Hydric Sc	oil Indicators: (Applica	able to a	II LRRs, unless oth	erwise n	oted.)		Indicators	s for Problematic	Hydric Soils ³ :	
Histo	osol (A1)		Sandy F	Redox (S	5)			2 cm Muck	(A10)	
Histic	c Epipedon (A2)		Stripped	d Matrix (S	S6)			Red Parent	Material (TF2)	
	k Histic (A3)			-			ept MLRA 1)	Other (Expl	ain in Remarks)	
	rogen Sulfide (A4)			-	atrix (F2))				
	leted Below Dark Surfac	ce (A11)		d Matrix (31		C	
	k Dark Surface (A12)			Dark Surf		7 \		cators of hydrophy	=	10
	dy Muck Mineral (S2) dy gleyed Matrix (S4)			o Dark Si Depressio	urface (F7	')		etland hydrology m unless disturbed o		
	/e Layer (if present):		Redox I	Jepi essic) (1 O)			uniess disturbed o	problematic.	
	c Layer (ii present).									
Type: Depth (inc	ches):						Hydric Soil Pr	esent?	Yes X	No
Remarks:										
HYDROLOG	GY									
	Hydrology Indicators:									
	ndicators (any one indicators	ator is su	,		(0.0				ndicators (2 or m	
	ace Water (A1)				eaves (B9	, ,	ept		ned Leaves (B9)	(MLRA 1, 2,
	Water Table (A2)				and 4B)			4A and	atterns (B10)	
	ıration (A3) er Marks (B1)			ist (B11) Invertebr	ates (B13	2)			atterns (B10) n Water Table (C	` 2)
	ment Deposits (B2)				Odor (C	•			/isible on Aerial	•
	Deposits (B3)						ing Roots (C3)		c Position (D2)	
	l Mat or Crust (B4)				uced Iron	•	3	Shallow Aq	` ,	
	Deposits (B5)						Soils (C6)	FAC-Neutra		
Surfa	ace Soil Cracks (B6)		Stunted	or Stress	sed Plants	s (D1) ((LRR A)	Raised Ant	Mounds (D6) (L	RR A)
Inund	dation Visible on Aerial	Imagery	(B7) Other (E	Explain in	Remarks)		Frost-Heave	e Hummocks (D	7)
Spar	rsely Vegetated Concav	e Surfac	e (B8)							
	servations:									
	Vater Present? Yes			(inches)						
Saturation	le Present? Yes n Present? Yes			ı (inches) ı (inches)			Wetland H	ydrology Presen	t? Yes	No X
(includes of	capillary fringe)							-		
Describe Re	ecorded Data (stream ga	auge, mo	nitoring well, aerial p	hotos, pr	evious in	spectio	ons), if available:	·		
Remarks:										

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	43
Investigator(s):	B. Haddaway, T.Sto	out		_	n, Township	-					
` .		Floodplain		_			_				
	Northwest Forests a		Lat:	45.850967°	•		·-		0	_ Datum	: WGS 84
Soil Map Unit Nam		•	Lin Processor	0				ssification:			- \
	ologic conditions on th				_				(If no, explair		
Are Vegetation Are Vegetation	, Soil , Soil								s Present? swers in Rem		_NO
Are vegetation	, 3011	_, or rigurology		naturally pri	obiematic :	(11 1100	ueu, exp	naiii aiiy aiis	weis in Rein	ains.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, 1	ransec	ts, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)	la tha O		_					
Hydric Soil Presen	t?	Yes X No)		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology	y Present?	Yes X No)								
Remarks:				1							
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	t:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?			nant Specie			
1						That Are	OBL, F	ACW, or FA	C:	2	_(A)
2								Dominant			
3						Species	Across /	All Strata:		2	_(B)
4								nant Species			
		Total Cover:	0			That Are	OBL, F	ACW, or FA	C:	100%	_(A/B)
Shrub Stratum						Prevale	nce Inde	ex Workshe	ot·		
1.							al % Cov			Itiply by:	
2.					·					0	_
3.					·	_	-			0	_
4.						FAC spe	_		x3 =	0	_
5.						FACU s	pecies		x4 =	0	
		Total Cover:	0			UPL spe	ecies		x5 =	0	_
Herb Stratum						Column	Totals:	0	(A)	0	_(B)
1. Phalaris arund	dinacea		30	Y	FACW	Preva	ence Inc	lex = B/A = _	#DI	V/0!	_
2. Lysimachia nu			10		FACW						
3. Alopecurus pr			40	<u>Y</u>	FAC	Hydrop		getation Inc			
4. Holcus lanatus			10		FAC				lydrophytic V	egetation	
5. Agrostis capilla	aris		20		FAC	X		ninance Test			
6						#####		alence Inde			
								-	daptation1 (F		orting
8. 9.					· 				on a separat ascular Plant	,	
1.0									hytic Vegeta	-	in)
11.					· ——		1 TODICI	natio riyarop	niyilo vegeta	tion (Explai	11)
' ' '		Total Cover:	110		·						
Woody Vine S	tratum_								wetland hydr		
1 2.								Jo Giotarbeu	or problema		
		Total Cover:	0			Hydrop	-				
% Ra	re Ground in Herb Str			otic Crust	0	Vegetat Present		•	Yes X	No	
Remarks:			20.01 01 01	5.400					<u>//</u>		
. iomanio.											

	Motrix			Dodov Foot	ıroo				cators.)		
Depth	Matrix	0/	0-1/	Redox Featu		1	.2			Damada	
(inches)	Color (moist)		Color (mois		Type ¹	Loc				Remarks	
0-8	10 YR 4/1	78_	7.5 YR 4/6	10	C C	M M	SILT LOA	AIVI			
			7.5 YR 3/4 10 YR 6/1		D	M					
8-12	10 YR 6/2	75	7.5 YR 4/6		C	M	SILT LOA				
J-12	10 110 0/2		7.5 YR 3/4	10	C	M	<u> </u>	<u> </u>			
12-16	10 YR 3/2	85	10 YR 4/6	5	C	M	SILT LOA				
12 10	10 11(0/2		10 YR 5/2	10	D	M	0121 207				
Type: C=	 Concentration, D=Dep	oletion, RI	M=Reduced Ma	atrix, CS=Cove	red or Co	ated S	and Grains. ² L	_ocation: PL=	Pore Lining	g, M=Matrix.	
lydric Sc	oil Indicators: (Applic	cable to a	II LRRs, unles	s otherwise n	oted.)		Indicator	s for Problen	natic Hydri	ic Soils³:	
Histo	osol (A1)		Sa	andy Redox (S	5)			2 cm M	luck (A10)		
Histi	c Epipedon (A2)		Sti	ripped Matrix (S6)			Red Pa	arent Mater	ial (TF2)	
Black	k Histic (A3)		Lo	amy Mucky Mi	neral (F1) (exce	pt MLRA 1)	Other (Explain in l	Remarks)	
Hydr	ogen Sulfide (A4)		Lo	amy Gleyed M	atrix (F2)					
	eted Below Dark Surfa	ice (A11)		epleted Matrix (
	k Dark Surface (A12)			edox Dark Surf				icators of hydr		_	
Sand	dy Muck Mineral (S2)			epleted Dark Si	•	7)		etland hydrolo			
	dy gleyed Matrix (S4)		Re	edox Depression	ns (F8)			unless disturb	ed or prob	lematic.	
	e Layer (if present):										
Restrictiv	e Layer (ii present).										
ype:											
ype: Depth (inc							Hydric Soil Pi	resent?	Yes	s <u>X</u>	No
Type: Depth (incommarks:	hes):						Hydric Soil Pi	resent?	Yes	s <u>X</u>	No
Type: Depth (incernarks: MOROLOG Wetland I	hes): SY Hydrology Indicators		fficient)				Hydric Soil Pi				
Type:	hes): SY Hydrology Indicators dicators (any one indicators)			otor Stained La	poves (PO			Seconda	ary Indicato	ors (2 or mor	e required
Type: Depth (inc emarks: /DROLOG Wetland I Primary In Surfa	Hydrology Indicators dicators (any one indicators (A1)		W	ater-Stained Le				Seconda Water-	ary Indicato		e required
Type: Depth (inc emarks: /DROLOG Wetland I Primary In Surfa High	Hydrology Indicators dicators (any one indicators (ace Water (A1) Water Table (A2)		W	MLRA 1, 2, 4A				Seconda Water-	ary Indicato Stained Le and 4B)	ors (2 or mor aves (B9) (N	e required
Type:	Hydrology Indicators dicators (any one indicate Water (A1) Water Table (A2) ration (A3)		W	MLRA 1, 2, 4 <i>A</i> alt Crust (B11)	and 4B))		Seconda Water- 4A a Draina	ary Indicato Stained Le and 4B) ge Patterns	ors (2 or mor aves (B9) (N s (B10)	e required
OPTIMENT OF THE PROPERTY OF TH	Hydrology Indicators dicators (any one indicace Water (A1) Water Table (A2) ration (A3) er Marks (B1)		W	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr	and 4B)	3)		Seconda Water- 4A a Drainae Dry-Se	ary Indicato Stained Le and 4B) ge Patterns ason Wate	ors (2 or mor aves (B9) (N s (B10) er Table (C2)	e required
OPPOLOGE Wetland I Primary In Surfa High Satu Wate Sedi	Hes): Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		W. Sa Ad Hy	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr ydrogen Sulfide	and 4B) rates (B13) e Odor (C) 3) 1)	ept	Seconda Water- 4A a Drainae Dry-Se X Satura	ary Indicato Stained Le and 4B) ge Patterns ason Wate	ors (2 or mor aves (B9) (N s (B10) er Table (C2) on Aerial Im	e required
Type:	Hes): Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		W Sa Ac Hy	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr /drogen Sulfide kidized Rhizosp	and 4B) rates (B13) e Odor (Coheres ald	3) 1) ong Liv		Seconda Water- 4A: Drainae Dry-Se X Saturae X Geomo	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit	ors (2 or mor aves (B9) (N s (B10) er Table (C2) on Aerial Im tion (D2)	e required
OPROLOG Wetland I Primary In Satu Wate Sedi Drift Alga	Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4)		Sa Ad Hy O>	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebr drogen Sulfide kidized Rhizosp esence of Red	and 4B) rates (B13 e Odor (Copheres ald uced Iron	3) 1) ong Liv n (C4)	ept ing Roots (C3)	Seconda Water- 4A a Draina Dry-Se X Satura X Geomo	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit	ors (2 or moraves (B9) (Nos (B10) or Table (C2) on Aerial Imition (D2) (D3)	e required
OPROLOG Wetland H Primary In Satu Wate Sedi Drift Algal	Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)		W Sa Ac Hy O> Pr Re	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redu	and 4By rates (B13 Odor (Coheres ald uced Iron uction in F	3) 1) ong Liv n (C4) Plowed	ept ing Roots (C3) Soils (C6)	Seconda Water- 4A a Drainag Dry-Se X Saturat X Geomo	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test	ors (2 or mor aves (B9) (Nos (B10) er Table (C2) on Aerial Imition (D2) (D3)	e required
Type:	Hes): Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) Arration (A3) Arration (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Arrace Soil Cracks (B6)	cator is su	W Sa Ad Hy Ox Pr Re Str	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr /drogen Sulfide xidized Rhizosp esence of Red ecent Iron Redu unted or Stress	ates (B13 e Odor (C oheres alo uced Iron uction in F sed Plants	3) 1) ong Liv n (C4) Plowed s (D1) (ept ing Roots (C3) Soils (C6)	Seconda Water- 4A: Drainae Dry-Se X Saturae X Geomo Shallov FAC-N Raised	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test	ors (2 or mor aves (B9) (No s (B10) er Table (C2) on Aerial Im tion (D2) (D3) (D3) s (D5) ds (D6) (LRF	e required
Type:	Hes): Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) For Soil Cracks (B6) dation Visible on Aeria	cator is su	— Wi — Sa — Ad — Hy — Ox — Pr — Ra — Sti (B7) — Ot	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebratogen Sulfide kidized Rhizospesence of Red ecent Iron Redu	ates (B13 e Odor (C oheres alo uced Iron uction in F sed Plants	3) 1) ong Liv n (C4) Plowed s (D1) (ept ing Roots (C3) Soils (C6)	Seconda Water- 4A: Drainae Dry-Se X Saturae X Geomo Shallov FAC-N Raised	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test	ors (2 or mor aves (B9) (Nos (B10) er Table (C2) on Aerial Imition (D2) (D3)	e required
Type: Depth (inclination in the primary in the p	Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) Per Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aeria sely Vegetated Conca	cator is su	— Wi — Sa — Ad — Hy — Ox — Pr — Ra — Sti (B7) — Ot	MLRA 1, 2, 4A alt Crust (B11) quatic Invertebr /drogen Sulfide xidized Rhizosp esence of Red ecent Iron Redu unted or Stress	ates (B13 e Odor (C oheres alo uced Iron uction in F sed Plants	3) 1) ong Liv n (C4) Plowed s (D1) (ept ing Roots (C3) Soils (C6)	Seconda Water- 4A: Drainae Dry-Se X Saturae X Geome Shallow FAC-N Raised	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test	ors (2 or mor aves (B9) (No s (B10) er Table (C2) on Aerial Im tion (D2) (D3) (D3) s (D5) ds (D6) (LRF	e required
Type: Depth (incline incline	Hydrology Indicators dicators (any one indicators (A1) Water Table (A2) ration (A3) Per Marks (B1) Ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) Pace Soil Cracks (B6) Codation Visible on Aeria (B4) Deposits (B5) Codation Visible on Aeria (B4) Deposits (B5) Codation Visible on Aeria (B4)	cator is su I Imagery ve Surfac	Will Sa Acc	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide kidized Rhizospe esence of Red ecent Iron Redu unted or Stress ther (Explain in	and 4B; e Odor (Coheres ald uced Iron uction in Fised Plants Remarks	3) 1) ong Liv n (C4) Plowed s (D1) (ept ing Roots (C3) Soils (C6)	Seconda Water- 4A: Drainae Dry-Se X Saturae X Geome Shallow FAC-N Raised	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test	ors (2 or mor aves (B9) (No er Table (C2) on Aerial Im tion (D2) (D3) (D5) ds (D6) (LRF	e required
Type:	Hes): Hydrology Indicators dicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) For Marks (B6) Deposits (B5) For Mater Crust (B4) Deposits (B5) For Mater Crust (B6) For Mater Crust (I Imagery ve Surfac	Will Sa Acc	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide kidized Rhizospe esence of Red ecent Iron Redu unted or Stress ther (Explain in Depth (inches)	and 4B; e Odor (Coheres ald uced Iron uction in Fised Plants Remarks	3) 1) ong Liv n (C4) Plowed s (D1) (ing Roots (C3) Soils (C6) (LRR A)	Seconda Water- 4A a Drainag Dry-Se X Saturat X Geomo Shallov FAC-N Raised Frost-F	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test Ant Mound deave Hum	ors (2 or mor aves (B9) (Nos (B10) er Table (C2) on Aerial Imition (D2) (D3) (D3) ds (D6) (LRF	e required
YDROLOG Wetland H Primary In Satu Wate Sedi Drift Algal Iron Surfa Inunc Spar Field Obs Surface W Water tabl Saturation	Hydrology Indicators dicators (any one indicators (any one indicators (ace Water (A1)) Water Table (A2) ration (A3) Per Marks (B1) Ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) Ace Soil Cracks (B6) dation Visible on Aeria sely Vegetated Concatervations: //ater Present? Yeele Present? Yeele Present? Yeele Present?	I Imagery ve Surfac	Will Sa Acc	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide kidized Rhizospe esence of Red ecent Iron Redu unted or Stress ther (Explain in	and 4B; e Odor (Coheres ald uced Iron uction in Fised Plants Remarks	3) 1) ong Liv n (C4) Plowed s (D1) (ing Roots (C3) Soils (C6) (LRR A)	Seconda Water- 4A: Drainae Dry-Se X Saturae X Geome Shallow FAC-N Raised	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test Ant Mound deave Hum	ors (2 or mor aves (B9) (No er Table (C2) on Aerial Im tion (D2) (D3) (D5) ds (D6) (LRF	e required
Type:	Hes): Hydrology Indicators dicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) For Marks (B6) Deposits (B5) For Mater Crust (B4) Deposits (B5) For Mater Crust (B6) For Mater Crust (I Imagery ve Surfac	Will Sa Acc	MLRA 1, 2, 44 alt Crust (B11) quatic Invertebre drogen Sulfide kidized Rhizospesence of Red ecent Iron Redu unted or Stress ther (Explain in Depth (inches) Depth (inches)	and 4B) rates (B13) rates (Canada (Can	3) 1) ong Liv n (C4) Plowed ss (D1) (ept ing Roots (C3) Soils (C6) (LRR A) Wetland F	Seconda Water- 4A a Drainag Dry-Se X Satural X Geomo Shallow FAC-N Raised Frost-F	ary Indicato Stained Le and 4B) ge Patterns ason Wate tion Visible orphic Posit w Aquitard eutral Test Ant Mound deave Hum	ors (2 or mor aves (B9) (Nos (B10) er Table (C2) on Aerial Imition (D2) (D3) (D3) ds (D6) (LRF	e required

Landtom (nillatope, terrace, etc.) Floodpisin Last Schopen Remarks Starting May Committee Commit	Project/Site:	Plas Newydd Farm	1		City/County:	Clark Cour	nty			Sampling	Date:	7/18/2014
Landform (nillalope, terrace, etc.) Floadploin Landform (nillalope, terrace, etc.) Floadploin Landform (nillalope, terrace, etc.) Floadploin Landform (nillalope, terrace, etc.) Floadform (Northeast Enrechand Coast (IRR A) Lat 45.85080° Lang; 122.77480° Datim: WGS 64 Soll Map Unit Name Sauvie silly clay Joan Landform (100 captain in Remarks) Are climate's hydrologic conditions on the site typical for this time of year? Yes X No MYI Classification: none Novi Classification Northeast (Iron, explain in Remarks)	Applicant/Owner:	Plas Newydd Farm	1					State:	WA	Sampling	Point:	44
Subregion (LRR) Northwest Forests and Cosset (LRR A) Late 64,850967" Long: 122,774606" Datum: WCS 84 Sol Map Unit Name: Sauvis silly clay Loam	Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	DLC37	, T4N, R1W			
Sol Map Uni Name	Landform (hillslope	e, terrace, etc.):	Floodplain		_						Slope (%): <u>0-1%</u>
Act calmatic / Pydrologic conditions on the site bytical for this time of year? Yes X No (fine. explain in Remarks)	Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°						Datur	n: WGS 84
Are Vegetation Soil or Hydrology anturally problematic? Are Normal Circumstances' Present? Yes X No naturally problematic? Are Normal Circumstances' Present? Yes X No naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydric Soil Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Present? Yes X No is the Sampled Area within a Wetland? Absolute Banks and Area within a Wetland? Wetland Hydrology Area within a Wetland? Wetland Hydrology Hydrology Mydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes X No is the Sampled Area within a Wetland? Yes X No is the Sampled Area within a Wetland? Wetland Hydrology Mydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes X No is X No is the Sampled Area within a Wetland? Yes X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X No is X	•								ssification:	none		
Are Vegetation, Soil, or Hydrology	Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes 2	X	No		(If no, explai	n in Remar	ks)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No within a Wetland? Yes X No within a Wetland? Yes X No within a Wetland? Wetland Hydrobyg Present? Yes X No within a Wetland? VEGETATION Tree Stratum (Use scientific names)	Are Vegetation							Iormal C	ircumstance	s" Present?	Yes X	No
Hydrophylic Vegetation Present? Yes X No	Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ans	wers in Ren	narks.)	
Strict Stratum Strat	SUMMARY OF	FINDINGS – At	tach site map s	showing	sampling	point loca	ations, t	ransec	cts, impor	tant featu	res, etc.	
Strict Stratum Strat	Hydrophytic Veget	ation Present?	Yes X No)								
VEGETATION								Yes	Χ	No		
Note	,				within	a wetiand?		•		-		
Absolute Cover Species Status Status Status Species Status Status Status Species Status Status Species Statu	_											
Absolute Species Species Status Indicator Status Sta	VECETATION											
Number of Dominant Species Number of Domi	VEGETATION						Ι					
That Are OBL, FACW, or FAC: 1												
Total Number of Dominant Species Across All Strata:	Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?			•			
Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)	1						THAT AIR	OBL, F	ACW, OI FA	·	1	(A)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)	2											
Total Cover: 0	3						Species	Across	All Strata:		1	(B)
Prevalence Index Worksheet: Total % Cover of:	4								•			
Total % Cover of: Multiply by: Country Multiply by:			Total Cover:	0			That Are	OBL, F	ACW, or FA	C:	100%	(A/B)
Total % Cover of: Multiply by: Comparison Multiply by: Multiply by:												
OBL species												
FACW species x2 = 0	-					· -				-		
FAC species X3 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X5 = 0 FACU	_											
FACU species	-							-				_
Delay Del	-					· 						_
Column Totals: 0	J		Total Cover:									_
1. Phalaris arundinacea 100 Y FACW DBL 2. Eleocharis palustris 2 OBL 3.	Herh Stratum		Total Gover.									(B)
2. Eleocharis palustris 2 OBL 3		dinacea		100	Υ	FACW						(D)
3.							11044	CHOC III	JCX DITT	,,,,,,	1470.	_
1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%							Hydrop	hvtic Ve	getation Inc	licators:		
X 2 - Dominance Test is >50%	4.						,	-	_		/egetation	
6. #### 3 - Prevalence Index is ≤3.0¹ 7.						• ——•	x				3	
7. 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 9. 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Total Cover: 102 Woody Vine Stratum 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2 Hydrophytic Vegetation Wegetation Wegetation Present? Yes X No			-			· ———	#####			_		
8.	7							4 - Mor	phological A	daptation1 (Provide sup	porting
9	١,											
10								5 - Wet	tland Non-Va	scular Plant	tS2	
Total Cover: 102 Woody Vine Stratum 1. Total Cover: 0 Bare Ground in Herb Stratum 6 Cover of Biotic Crust 0 Total Cover: 0 Stratum 7 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes X No								Probler	matic Hydrop	hytic Vegeta	ation ¹ (Expla	ain)
Woody Vine Stratum	11.											
1			Total Cover:	102								
2. Total Cover:0	Woody Vine S	<u>stratum</u>										t
Total Cover: 0 Vegetation % Bare Ground in Herb Stratum % Cover of Biotic Crust 0 Present? Yes X No	1						be prese	ent, unle	ss disturbed	or problema	itic.	
Total Cover:0 Vegetation Present? Yes X No	2						Hydrop	hytic				
							Vegetat	ion				
Remarks:	% Ba	re Ground in Herb S	tratum %	Cover of Bi	otic Crust	0	Present	?	,	Yes X	No	
	Remarks:						•					

OIL Profile De	escription: (Describe	to the de	enth neede	ed to document	the indica	tor or co	nfirm the abo		npling Point:	
Depth	Matrix	to the de	pui necue	Redox Fea			minim the ab.	oction of file	icators.)	
	Color (moist)	%	Color (Type ¹	Loc ²	– Textur	·o	Remark	0
(inches) 0-3	10 YR 4/1	100	COIOI (I	1110ISt) 76	туре	LUC	SCL	<u> </u>	Remain	.5
3-8	10 YR 5/1	80	7.5 YR 4/	<u> </u>	0 C		SCL			
3-16	10 YR 6/1	70	7.5 YR 4/		0 C	M	SCL			
, 10	10 11(0/1		7.0 110 11							
	_	. ——	1							
ype: C=	=Concentration, D=Dep	letion, RI	M=Reduced	d Matrix, CS=Co	vered or C	oated Sa	nd Grains. ² L	ocation: PL=	=Pore Lining, M=Mati	rix.
lydric Sc	oil Indicators: (Applic	able to a	II LRRs, u	nless otherwise	noted.)		Indicator	s for Proble	matic Hydric Soils ³ :	
-	osol (A1)			Sandy Redox (-				Muck (A10)	
Histi	c Epipedon (A2)			Stripped Matrix	(S6)			Red P	Parent Material (TF2)	
	k Histic (A3)			Loamy Mucky	Mineral (F	1) (excep	t MLRA 1)	Other	(Explain in Remarks)
— Hydr	rogen Sulfide (A4)			Loamy Gleyed	Matrix (F	2)				
	leted Below Dark Surfa	ce (A11)	X	Depleted Matri						
	k Dark Surface (A12)	, ,		Redox Dark Su		1	³ Ind	cators of hyd	Irophytic vegetation a	and
	dy Muck Mineral (S2)			Depleted Dark				=	ogy must be present	
	dy gleyed Matrix (S4)			Redox Depres	,	,		=	bed or problematic.	,
	/e Layer (if present):									
	o zayor (ii proceini).									
ype:										
epth (inc	ches):					١,	lvdric Soil Pr	esent?	Yes X	No
	ches):					ŀ	lydric Soil Pr	esent?	Yes X	No
marks:						ŀ	Hydric Soil Pr	esent?	Yes X	No
marks:	GY					<u> </u>	łydric Soil Pr	esent?	Yes X	_ No
DROLOG	GY Hydrology Indicators:		fficient)			F	lydric Soil Pr			
DROLOG Vetland I	GY Hydrology Indicators: ndicators (any one indic		fficient)	Water-Stained	Leaves (F			Second	dary Indicators (2 or r	nore required
OROLOG Jetland I rimary In	GY Hydrology Indicators: ndicators (any one indicators (ace Water (A1)		fficient)	Water-Stained	•	9) (excep		Second Water	dary Indicators (2 or r -Stained Leaves (B9	nore required
DROLOG /etland I rimary In Surfa High	GY Hydrology Indicators: ndicators (any one indicators (A1) ace Water (A1) Water Table (A2)		fficient)	MLRA 1, 2,	4A and 4E	9) (excep		Second Water 4A	dary Indicators (2 or r -Stained Leaves (B9 and 4B)	nore required
DROLOO /etland I rimary In Surfa High Satu	GY Hydrology Indicators: ndicators (any one indicators (A1) ace Water (A1) Water Table (A2) Iration (A3)		fficient)	MLRA 1, 2, Salt Crust (B1	4A and 4 E	9) (excep		Second Water 4A Draina	dary Indicators (2 or r -Stained Leaves (B9 and 4B) age Patterns (B10)	nore required
DROLOG /etland I rimary In Surfa High Satu Wate	Hydrology Indicators: ndicators (any one indicator (A1) Water Table (A2) Iration (A3) er Marks (B1)		fficient)	MLRA 1, 2, Salt Crust (B12 Aquatic Inverte	4A and 4E I) brates (B1	9) (excep 3)		Second Water 4A Draina Dry-Se	dary Indicators (2 or r -Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (nore required) (MLRA 1, 2
DROLOG Vetland I rimary In Surfa High Satu Wate Sedi	Hydrology Indicators: Indicators (any one indicators (any one indicators (A1) In Water Table (A2) Intation (A3) Inter Marks (B1) Interior Deposits (B2)		fficient)	MLRA 1, 2, Salt Crust (B1 ² Aquatic Inverte Hydrogen Sulfi	4A and 4E brates (B1 de Odor (0	9) (excep 3) 3)	ot	Second Water 4A Draina Dry-Se	dary Indicators (2 or r -Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (ation Visible on Aeria	nore required) (MLRA 1, 2
DROLOG Vetland I rrimary In Surfa High Satu Wate Sedi Drift	Hydrology Indicators: ndicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3)		fficient)	MLRA 1, 2, Salt Crust (B1 ² Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo	4A and 4E brates (B1 de Odor (Cospheres a	9) (excep 3) (3) (3) (1) (long Livin	ot	Second Water 4A Draina Dry-Si Satura Geom	dary Indicators (2 or r -Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (ation Visible on Aeria orphic Position (D2)	nore required) (MLRA 1, 2
DROLOG Vetland I Surfa Surfa High Satu Wate Sedi Drift Alga	Hydrology Indicators: adicators (any one indicators (any one indicators (ace Water (A1)) Water Table (A2) Irration (A3) er Marks (B1) Iment Deposits (B2) Deposits (B3) Il Mat or Crust (B4)		fficient)	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro	4A and 4E brates (B1 de Odor (0 espheres a educed Iro	9) (excep 3) 3) C1) long Livin	ot g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (ation Visible on Aeria torphic Position (D2)	nore required) (MLRA 1, 2
DROLOG Vetland I Surfa High Satu Wate Sedi Drift Alga Iron	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5)		fficient)	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Re	4A and 4E brates (B' de Odor (Coppheres a educed Iro	(9) (excep 3) (3) (C1) (long Livin (C4) (Plowed S	g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (ation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5)	nore required) (MLRA 1, 2 C2) I Imagery (C
DROLOG Vetland I rimary In Satu Vate Sedi Drift Alga Iron Surfa	Hydrology Indicators: ndicators (any one indicators (any one indicators (A1) Water Table (A2) Iration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3) Il Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su		MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre	4A and 4E brates (B' de Odor (Cospheres a educed Iro eduction in essed Plan	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (dation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (I	nore required) (MLRA 1, 2 C2) I Imagery (Ca
DROLOG Vetland I Surfa High Satu Wate Sedi Drift Alga Iron Surfa	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators) ace Water (A1) a Water Table (A2) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	——————————————————————————————————————	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Re	4A and 4E brates (B' de Odor (Cospheres a educed Iro eduction in essed Plan	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (ation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5)	nore required) (MLRA 1, 2 C2) I Imagery (Cs
DROLOG Vetland I Surfa GHigh Satu Wate Sedi Drift Alga Iron Surfa Inune	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators) ace Water (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concavers	ator is su	——————————————————————————————————————	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre	4A and 4E brates (B' de Odor (Cospheres a educed Iro eduction in essed Plan	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (dation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (I	nore required) (MLRA 1, 2 C2) I Imagery (C9
Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaverservations:	Imagery ve Surfac	(B7)	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Ro Recent Iron Re Stunted or Stre Other (Explain	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in essed Plan in Remark	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (dation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (I	nore required) (MLRA 1, 2 C2) I Imagery (C9
DROLOG Vetland I Surfa GHigh Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves acevations: Vater Present?	Imagery	(B7) e (B8)	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Recent Iron Re Stunted or Stre Other (Explain	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (dation Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (I	nore required) (MLRA 1, 2 C2) I Imagery (C9
DROLOG Vetland I Surfa GHigh Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaverservations:	Imagery ve Surfaces	(B7)	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Recent Iron Re Stunted or Stre Other (Explain Depth (inche	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark is):	(9) (except) (3) (3) (C1) (long Living (C4) (Plowed Sts (D1) (Living (Living (D1) (g Roots (C3) Soils (C6) RR A)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee Frost-	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (total attention Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (Indicate the state of the s	nore required) (MLRA 1, 2 C2) I Imagery (Cs
DROLOG Vetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) aration (A3) are Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves arevations: Vater Present? Yes ale Present? Yes	Imagery ve Surfaces	(B7) e (B8) No	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Recent Iron Re Stunted or Stre Other (Explain	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark is):	(9) (exception) (e	g Roots (C3) Soils (C6) RR A)	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (total attention Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (Indicate the state of the s	nore required) (MLRA 1, 2 C2) I Imagery (C
DROLOG Vetland I Primary In Surfa Sedi Drift Alga Iron Surfa Inunc Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaverservations: Vater Present? Yes a Present? Yes a Present? Yes	Imagery ye Surfac	(B7) e (B8) No No	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain Depth (inches Depth (inches	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark is): is):	9) (excep 3) 3) C1) long Livin n (C4) Plowed S ts (D1) (L s)	g Roots (C3) Soils (C6) RR A) Wetland H	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee Frost-	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (total attention Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (Indicate the state of the s	nore required) (MLRA 1, 2 C2) I Imagery (Cal
DROLOG Vetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaversel	Imagery ye Surfac	(B7) e (B8) No No	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Re Recent Iron Re Stunted or Stre Other (Explain Depth (inches Depth (inches	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark is): is):	9) (excep 3) 3) C1) long Livin n (C4) Plowed S ts (D1) (L s)	g Roots (C3) Soils (C6) RR A) Wetland H	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee Frost-	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (total attention Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (Indicate the state of the s	nore required) (MLRA 1, 2 C2) I Imagery (Cs
DROLOG Vetland I Primary In Surfa Sedi Drift Alga Iron Surfa Inunc Spar	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaversel	Imagery ye Surfac	(B7) e (B8) No No	MLRA 1, 2, Salt Crust (B1' Aquatic Inverte Hydrogen Sulfi Oxidized Rhizo Presence of Recent Iron Re Stunted or Stre Other (Explain Depth (inches Depth (inches	4A and 4E brates (B ² de Odor (Cospheres a educed Iroeduction in Remark in Remark is): is):	9) (excep 3) 3) C1) long Livin n (C4) Plowed S ts (D1) (L s)	g Roots (C3) Soils (C6) RR A) Wetland H	Second Water 4A Draina Dry-Se Satura Geom Shallo FAC-N Raisee Frost-	dary Indicators (2 or re-Stained Leaves (B9 and 4B) age Patterns (B10) eason Water Table (total attention Visible on Aeria torphic Position (D2) ow Aquitard (D3) Neutral Test (D5) d Ant Mounds (D6) (Indicate the state of the s	nore require) (MLRA 1, 2

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	45
Investigator(s):	B. Haddaway, T.Sto	out		_	n, Township	_					
Landform (hillslope		Floodplain		_			_				
	Northwest Forests a) Lat:	45.850967°			_		0	_ Datum	: WGS 84
Soil Map Unit Nam		•						ssification:			
	ologic conditions on th				_		_		(If no, explair		
Are Vegetation	, Soil										_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ans	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen	t?)		ampled Are a Wetland?		Yes	Χ	No		
Wetland Hydrology	y Present?)	WILLIIII	a vvetianu:		-				
Remarks:		<u> </u>									
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	t:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?	Number	of Domi	nant Specie	s		
1.	,					That Are	OBL, F	ACW, or FA	C:	2	(A)
2.						Total Nu	ımber of	Dominant			_` ′
3.						Species	Across A	All Strata:		2	(B)
4.						Percent	of Domir	nant Specie	s		
		Total Cover:	0					ACW, or FA		100%	_(A/B)
Shrub Stratum						Prevale	nce Inde	x Workshe	et:		
1. Salix lasiandra	9		30	Y	FACW	Tot	al % Cov	ver of:	Mu	Itiply by:	_
2							-			0	_
3							_		x2 =	0	_
4.						FAC spe	-		x3 =	0	
5							_		x4 =	0	_
Llank Otrakova		Total Cover:	30			UPL spe	-		x5 =	0	
Herb Stratum 1. Phalaris arund	dinagaa		50	V	FACW		_	0 lex = B/A =		0 V/0!	_(B)
 Phalaris aruno Lycopus amer 			<u>50</u> 1	<u> </u>	OBL	Pieva	ence mo	lex - b/A -	#01	V/U:	_
3.	icarius		<u>_</u>			Hydron	hytic Ve	getation Inc	licators:		
4.						yu.op		_	lydrophytic V	egetation	
5.					· 			ninance Tes	-	ogotatio	
6.						#####		alence Inde			
7.							4 - Mori	ohological A	daptation1 (F	Provide supr	orting
8.								_	on a separat		J
							5 - Wet	land Non-Va	ascular Plant	S2 ,	
40							Problen	natic Hydror	hytic Vegeta	tion ¹ (Explai	n)
11.											
		Total Cover:	51								
Woody Vine S	tratum								wetland hydr or problema		
2.						Hydrop	hytic				·
		Total Cover:	0	· <u> </u>		Vegetat					
% Ba	re Ground in Herb Str	ratum <u>40</u> %	Cover of Bi	otic Crust	0	Present			Yes X	No	
Remarks:		<u></u>				ı			<u> </u>		

SOIL								Sampling Point:	45
Profile De	escription: (Describe	to the de	epth needed to do	cument th	e indicat	or or co	onfirm the absen	nce of indicators.)	
Depth	Matrix		Re	dox Featu	ires				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	_ Texture	Remarks	
0-4	10 YR 3/2	100					LOAM	HIGH ORGANIC MATTER	CONTENT
4-10	10 YR 5/1	90	10 YR 4/6	10	С	М	SCL		
10-16	10 YR 5/1	65	10 YR 4/6	30	С	М	SCL		
			7.5 YR 4/4	5	С	М			
					1			_	
							_		
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated Sa	nd Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.	
Hydric So	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicators fo	or Problematic Hydric Soils ³ :	
Histo	osol (A1)		Sandy	Redox (S5	5)			2 cm Muck (A10)	
Histic	c Epipedon (A2)		Strippe	d Matrix (S	36)			Red Parent Material (TF2)	
Black	k Histic (A3)		Loamy	Mucky Mi	neral (F1)) (excep	t MLRA 1)	Other (Explain in Remarks)	
Hydro	ogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2))			
X Deple	eted Below Dark Surfa	ce (A11)	Deplete	ed Matrix (F3)				
Thick	C Dark Surface (A12)		Redox	Dark Surfa	ace (F6)		³ Indicat	tors of hydrophytic vegetation and	ł
Sand	dy Muck Mineral (S2)		Deplete	ed Dark Su	urface (F7	7)	wetla	and hydrology must be present,	
Sand	dy gleyed Matrix (S4)		Redox	Depressio	ns (F8)		unl	less disturbed or problematic.	
Restrictiv	e Layer (if present):								
Type:									
Depth (inc	:hes):						Hydric Soil Prese	ent? Yes X	No
Remarks:	•								
HYDROLOG	BY .								
Wetland F	Hydrology Indicators:	:							
Primary In	dicators (any one indic	ator is su	fficient)					Secondary Indicators (2 or mo	re required)
Surfa	ace Water (A1)		Water-	Stained Le	eaves (B9	excep	ot	Water-Stained Leaves (B9) (I	MLRA 1, 2,
X High	Water Table (A2)		MLF	RA 1, 2, 4A	and 4B))		4A and 4B)	
Satur	ration (A3)		Salt Cr	ust (B11)				Drainage Patterns (B10)	
Wate	er Marks (B1)		Aquatio	Invertebr	ates (B13	3)		Dry-Season Water Table (C2)
Sedir	ment Deposits (B2)		Hydrog	en Sulfide	Odor (C	1)		Saturation Visible on Aerial Ir	nagery (C9)
Drift	Deposits (B3)		Oxidize	ed Rhizosp	heres ald	ong Livin	ng Roots (C3)	Geomorphic Position (D2)	
Algal	Mat or Crust (B4)		Preser	ce of Red	uced Iron	(C4)		Shallow Aquitard (D3)	
Iron [Deposits (B5)		Recent	Iron Redu	uction in F	Plowed S	Soils (C6)	FAC-Neutral Test (D5)	
Surfa	ace Soil Cracks (B6)		Stunte	d or Stress	ed Plants	s (D1) (L	RR A)	Raised Ant Mounds (D6) (LR	R A)
Inunc	dation Visible on Aerial	Imagery	(B7) Other (Explain in	Remarks	s)		Frost-Heave Hummocks (D7))
Spar	sely Vegetated Conca	ve Surfac	e (B8)					_	
Field Obs	ervations:								
Surface W	/ater Present? Yes			h (inches)					
		s <u>X</u>		h (inches)		6	Made at the	l1 P	NI-
Saturation (includes of	Present? Yes capillary fringe)	s <u>X</u>	No Dept	h (inches)		0	Wetland Hyd	Irology Present? Yes X	No
	corded Data (stream g	lauge. mo	nitoring well. aerial	photos. pr	evious in:	spection	s), if available:		
	(9	. 5:,							
Remarks:									

<u>4)</u> Lat:	_	n, Township		State: DLC37,		Samplir	ng Point:	46
<u>A)</u> Lat:	_	•	, Range:	DLC37,	T4N, R1W			
<u>A)</u> Lat:	_ Local re	liof (concov						
<u>A)</u> Lat:		eller (coricav	e, convex,	none):_	none		Slope (%):	5-7%
	45.850967°	•		Long:	122.774606	0	Datum:	: WGS 84
			N	IWI Cla	ssification: _ı	none		
this time of	year?	Yes _	X	No	(If no, exp	lain in Remarks	;)
			Are "No	ormal Ci	rcumstance	s" Presen	t? Yes X	_No
	naturally pr	oblematic?	(If need	ded, exp	lain any ans	wers in R	emarks.)	
showing	sampling	point loca	ations, tr	ansec	ts, import	ant feat	tures, etc.	
-	Is the S	ampled Are	a					
	within	a Wetland?		Yes		No X		
lo <u>X</u>								
Absolute % Cover	Dominant Species?	Indicator Status?						
60	Υ	FACU	That Are	OBL, F	ACW, or FA	C:	1	(A)
		FACW	Total Nur	mber of	Dominant			_ ` ′
			Species /	Across A	All Strata:		5	_(B)
			Percent of	of Domir	nant Species	3		
r: <u>75</u>			That Are	OBL, F	ACW, or FA	C:	20%	_(A/B)
45		EACH					N 4 - 14 i - 1 - 1 - 1 - 1	
	V		-					-
		. ———		_				-
	<u> </u>		1	-				-
-	-			-			0	=
r: 105				_			0	_
			Column 7	Totals:	0	(A)	0	(B)
5	Υ	FACU	Prevale	ence Ind	ex = B/A = _	#	DIV/0!	_
				•				
							c Vegetation	
		·					1	
					-			orting
		. ———				•	,	
								n)
				1 TODICII	natio i iyarop	Trytic veg	ctation (Explain	1)
r: 5								
			Hydranh	vtic				
r: 0				-				
	otic Crust	0	_		•	es_	No X	
	Showing lo X lo X lo X lo X lo X lo X r: 75 15 30 60 r: 105 5 r: 5 r: 0	Showing sampling Io X		Absolute Dominant Indicator Number of that Are	Absolute % Cover Species? Status? Number of Dominant That Are OBL, F. 15 Y FACU Percent of Dominant That Are OBL, F. 15 FACU OBL species FAC Species	Absolute Dominant Indicator Number of Dominant Species That Are OBL, FACW, or FACU Total % Cover Species That Are OBL, FACW, or FACU Total % Cover Species That Are OBL, FACW, or FACU Total % Cover Species That Are OBL, FACW, or FACW Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FACW Prevalence Index Worksheer Total % Cover of: OBL species Spe	Absolute Dominant Wetland? Absolute Species? Status? 60 Y FACU 15 Y FACU 15 FACU 30 Y FACU 40 FACU 50 FACU	Absolute No Expecies Across All Strata: 15

)IL			led to docu	ment the	e indicate	or or co	onfirm the abse	nce of indic	ators.)	
Profile Description: (Des	cribe to the	depth need	ica to accu				Jillii ili ilic aboc		atorony	
Depth Ma	trix		Red	ox Featu	res		_			
nches) Color (moi	st) %	Color	(moist)	%	Type ¹	Loc ²	Texture		Rem	arks
-10 10 YR 3/2	8	5 Gravel		5		M	SILT LOAM	<u> </u>		
		Rock		10		M	_			
		_								
		_								
		_								
		_								
		_					_			
Type: C=Concentration, D	D=Depletion,	RM=Reduce	ed Matrix, C	S=Cover	red or Coa	ated Sa	nd Grains. ² Lo	cation: PL=F	Pore Lining, M=N	/latrix.
ydric Soil Indicators: (A	Applicable to	all LRRs, i	unless othe	erwise n	oted.)		Indicators	for Problem	atic Hydric Soil	ls³:
Histosol (A1)			_ Sandy R	edox (S5	5)		_	2 cm M	uck (A10)	
Histic Epipedon (A2)			Stripped	Matrix (S	56)		_	Red Pa	rent Material (TF	-2)
Black Histic (A3)			_ Loamy M	lucky Mir	neral (F1)	(excep	ot MLRA 1)	Other (I	Explain in Rema	rks)
Hydrogen Sulfide (A4)		_ Loamy G	Sleyed Ma	atrix (F2)					
Depleted Below Dark	Surface (A1	1)	Depleted	l Matrix (F3)					
Thick Dark Surface (A	\12)		_ Redox D	ark Surfa	ace (F6)		³ Indica	ators of hydro	ophytic vegetatio	on and
Sandy Muck Mineral	(S2)		Depleted	l Dark Su	ırface (F7)	wet	land hydrolog	gy must be prese	ent,
Sandy gleyed Matrix (S4)		_ Redox D	epressio	ns (F8)		uı	nless disturb	ed or problemati	C.
antrintiva I avar /if pros	ent):									
estrictive Layer (ii presi										
	ock									
ype: Shovel Refusal - ro epth (inches):	ock	10					Hydric Soil Pre	sent?	Yes	<u>No)</u>
ype: Shovel Refusal - ro lepth (inches): marks:	ock	10					Hydric Soil Pre	sent?	Yes	No <u>></u>
ype: Shovel Refusal - roepth (inches):		10					Hydric Soil Pre	sent?	Yes	No <u>></u>
ype: Shovel Refusal - reepth (inches):	ators:						Hydric Soil Pre		Yes	
ype: Shovel Refusal - reepth (inches): narks: DROLOGY //etland Hydrology Indications (any one Surface Water (A1)	ators:				eaves (B9) (exce		Seconda		or more requi
ype: Shovel Refusal - reepth (inches):	ators:				eaves (B9) (exce		Seconda Water-S	ry Indicators (2 c	or more requi
ype: Shovel Refusal - reepth (inches): narks: DROLOGY Vetland Hydrology Indications (any one Surface Water (A1)	ators:			1, 2, 4A) (exce		Seconda Water-S 4A a Drainag	ry Indicators (2 o Stained Leaves (and 4B) ge Patterns (B10	or more requi (B9) (MLRA 1
ype: Shovel Refusal - reepth (inches): narks: DROLOGY /etland Hydrology Indication (any one Surface Water (A1) High Water Table (A2)	ators:		MLRA Salt Crus	1, 2, 4A st (B11)) (exce		Seconda Water-S 4A a Drainag	ry Indicators (2 o Stained Leaves (and 4B)	or more requi (B9) (MLRA 1
pype: Shovel Refusal - reepth (inches): parks: DROLOGY Vetland Hydrology Indication (any one Surface Water (A1) High Water Table (A2) Saturation (A3)	ators: e indicator is		MLRA Salt Crus Aquatic I	1, 2, 4A st (B11) nvertebra	and 4B)) (exce		Seconda Water-S 4A a Drainag Dry-Sea	ry Indicators (2 o Stained Leaves (and 4B) ge Patterns (B10	or more requi (B9) (MLRA 1)
ppe: Shovel Refusal - reepth (inches): parks: DROLOGY Vetland Hydrology Indication (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	ators: e indicator is		MLRA Salt Crus Aquatic I Hydroge Oxidized	a 1, 2, 4A st (B11) Invertebra n Sulfide Rhizosp	ates (B13 Odor (C1 oheres alo) (excell))) ng Livir		Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo	ry Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (D	or more requi (B9) (MLRA 1) e (C2) erial Imagery
pye: Shovel Refusal - reepth (inches): parks: DROLOGY /etland Hydrology Indication (and one of the content o	ators: e indicator is		MLRA Salt Crus Aquatic I Hydroge Oxidized Presence	a 1, 2, 4A st (B11) Invertebra n Sulfide Rhizosp e of Redu	ates (B13 Odor (C1 oheres alo) (exce	pt	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (D3)	or more requi (B9) (MLRA 1) e (C2) erial Imagery
ype: Shovel Refusal - reepth (inches): parks: DROLOGY /etland Hydrology Indications (any one Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	ators: e indicator is		MLRA Salt Crus Aquatic I Hydroge Oxidized Presence	a 1, 2, 4A st (B11) Invertebra n Sulfide Rhizosp e of Redu	ates (B13 Odor (C1 oheres alo) (exce	pt	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ory Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (D3) eutral Test (D5)	or more requi (B9) (MLRA 1) le (C2) erial Imagery 02)
ype: Shovel Refusal - reepth (inches): parks: DROLOGY /etland Hydrology Indication (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 (ators: e indicator is 2) 32) 4)	sufficient)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu	ates (B13 Odor (C1 oheres alo) (exce)) ng Livir (C4)	pt 	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (D3)	or more requi (B9) (MLRA 1) le (C2) erial Imagery 02)
ppe: Shovel Refusal - reepth (inches): parks: DROLOGY Vetland Hydrology Indications (any one standard Marks (A1)) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on	ators: e indicator is 2) 32) 4) B6) Aerial Image	sufficient)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	a 1, 2, 4A st (B11) Invertebra In Sulfide Rhizospe of Redu ron Redu or Stress	ates (B13 Odor (C1 oheres alo uced Iron action in P) (excell)) ng Livir (C4) (lowed \$ (D1) (L	pt 	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ory Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (D3) eutral Test (D5)	or more requi (B9) (MLRA 1) le (C2) erial Imagery (C2)
pye: Shovel Refusal - reepth (inches): parks: DROLOGY /etland Hydrology Indication (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (ators: e indicator is 2) 32) 4) B6) Aerial Image	sufficient)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted	a 1, 2, 4A st (B11) Invertebra In Sulfide Rhizospe of Redu ron Redu or Stress	ates (B13 Odor (C1 oheres alo uced Iron uction in P) (excell)) ng Livir (C4) (lowed \$ (D1) (L	pt 	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ory Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablicion Visible on Aerphic Position (D3) eutral Test (D5) Ant Mounds (D6	or more requi (B9) (MLRA 1) le (C2) erial Imagery (C2)
pye: Shovel Refusal - reepth (inches): parks: DROLOGY /etland Hydrology Indication (A3)	ators: e indicator is 2) 4) B6) Aerial Image	sufficient)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent II Stunted of	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (excell)) ng Livir (C4) (lowed \$ (D1) (L	pt 	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ory Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablicion Visible on Aerphic Position (D3) eutral Test (D5) Ant Mounds (D6	or more requi (B9) (MLRA 1) le (C2) erial Imagery (C2)
ype: Shovel Refusal - reepth (inches): marks: DROLOGY /etland Hydrology Indication (A3)	ators: e indicator is 2) 4) B6) Aerial Image concave Surf	sufficient) ry (B7) ace (B8)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent Ii Stunted o Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches):	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (excell)) ng Livir (C4) (lowed \$ (D1) (L	pt 	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne	ory Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablicion Visible on Aerphic Position (D3) eutral Test (D5) Ant Mounds (D6	or more requi (B9) (MLRA 1) le (C2) erial Imagery (C2)
ype: Shovel Refusal - reepth (inches): marks: DROLOGY Vetland Hydrology Indication (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Coield Observations: urface Water Present? Vater table Present?	ators: e indicator is 2) 4) B6) Aerial Image concave Surf Yes Yes	sufficient) ry (B7) ace (B8) No X No X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent Ii Stunted o Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches):	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (excell)) ng Livir (C4) (lowed \$ (D1) (L	pt ing Roots (C3) Soils (C6) LRR A)	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised Frost-H	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (Day Aquitard (D3) eutral Test (D5) Ant Mounds (D6) eave Hummocks	or more requi (B9) (MLRA 1) le (C2) erial Imagery (D2) S) (LRR A) s (D7)
ppe: Shovel Refusal - relepth (inches): marks: DROLOGY Vetland Hydrology Indication (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 (Inundation Visible on Sparsely Vegetated Coileld Observations: urface Water Present? vater table Present? aturation Present? ncludes capillary fringe)	ators: e indicator is 2) 4) 86) Aerial Image concave Surf Yes Yes Yes Yes	sufficient) ry (B7) ace (B8) No X No X No X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent Ii Stunted o Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (exce) ng Livir (C4) llowed ((D1) (L	pt	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised Frost-H	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (Dar Aquitard (D3) eutral Test (D5) Ant Mounds (D6) eave Hummocks	or more requi (B9) (MLRA 1) le (C2) erial Imagery (D2) S) (LRR A) s (D7)
ppe: Shovel Refusal - relepth (inches): marks: DROLOGY Vetland Hydrology Indication (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 (Inundation Visible on Sparsely Vegetated Coileld Observations: urface Water Present? vater table Present? aturation Present? ncludes capillary fringe)	ators: e indicator is 2) 4) 86) Aerial Image concave Surf Yes Yes Yes Yes	sufficient) ry (B7) ace (B8) No X No X No X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent Ii Stunted o Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (exce) ng Livir (C4) llowed ((D1) (L	pt	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised Frost-H	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (Dar Aquitard (D3) eutral Test (D5) Ant Mounds (D6) eave Hummocks	or more requi (B9) (MLRA 1) le (C2) erial Imagery (D2) S) (LRR A) s (D7)
High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on	ators: e indicator is 2) 4) 86) Aerial Image concave Surf Yes Yes Yes Yes	sufficient) ry (B7) ace (B8) No X No X No X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent Ii Stunted o Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 oheres alo uced Iron uction in P ed Plants Remarks) (exce) ng Livir (C4) llowed ((D1) (L	pt	Seconda Water-S 4A a Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised Frost-H	ary Indicators (2 of Stained Leaves (and 4B) ge Patterns (B10 ason Water Tablion Visible on Aerphic Position (Dar Aquitard (D3) eutral Test (D5) Ant Mounds (D6) eave Hummocks	or more requi (B9) (MLRA 1) le (C2) erial Imagery (D2) S) (LRR A) s (D7)

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	g Point:	47
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	DLC37	, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concave	e, convex	, none):	none		Slope (%)): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.850967°	•		Long:	122.774606	i°	Datur	n: WGS 84
Soil Map Unit Nam								ssification:	none		
Are climatic / hydro	ologic conditions on t	he site typical for t	his time of y	/ear?	Yes 2	X	No		(If no, expla	ain in Remarl	ks)
Are Vegetation	, Soil						lormal C	ircumstance	s" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ans	swers in Re	marks.)	
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations, 1	ransec	cts, impor	tant featu	ıres, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen)		ampled Area	a	Yes	Χ	No		
Wetland Hydrolog)	within	a Wetland?		•		-		
Remarks:	,										
VEGETATION											
Troo Stratum (III	aa aajantifia namaa)		Absolute % Cover	Dominant Species?	Indicator Status?			st workshee			
1. Fraxinus latifo	se scientific names.)		50	<u></u>	FACW			ACW, or FA		4	(A)
2.	iid .			<u>'</u>		Total Nu	ımber of	Dominant			(^)
3.								All Strata:		4	(B)
4.					-	Percent	of Domi	nant Specie			_` '
		Total Cover:	50					ACW, or FA		100%	(A/B)
Shrub Stratum						Prevale	nce Inde	ex Workshe	et:		
1. Salix lasiandra	9		20	Y	FACW	To	al % Co	ver of:	M	lultiply by:	_
2						•	•			0	_
3										0	_
4						FAC spe				0	_
5		T-4-1 0									_
Llord Ctrotum		Total Cover:	20			UPL spe			x5 =	0	(D)
Herb Stratum 1. Phalaris arund	dinacea		70	V	FACW			0 dex = B/A =		0 DIV/0!	(B)
Carex obnupta			20		OBL	Tieva	ence m	JEX - D/A -	#1	111/0:	
3.		,		<u> </u>	-	Hydron	hvtic Ve	getation Inc	dicators:		
4.						,	-	oid Test for H		Vegetation	
5.				-		X		ninance Tes		J	
6		_				#####	3 - Pre	valence Inde	ex is ≤3.0 ¹		
7		_					4 - Mor	phological A	daptation1	(Provide sup	porting
							data in	Remarks or	on a separ	ate sheet)	
9							5 - Wei	tland Non-Va	ascular Plar	ıtS2	
10							Probler	matic Hydror	hytic Veget	tation¹ (Expla	ain)
11											
		Total Cover:	90								
Woody Vine S	tratum_									drology must	t
1						pe prese	ent, unie	ss disturbed	or problem	atic.	
2		T-1-1-2				Hydrop	-				
0/ 5	vo Ovorralia III di Or	Total Cover:		otio Ot	_	Vegetat			Vaa V	NI.	
	re Ground in Herb St	ratum <u>25</u> %	Cover of Bi	otic Crust	0	Present			Yes X	No	
Remarks:											

			epth needed to doo	cument th	e maicat	or cor	ntirm the abse	ence or mulcato	ors.)	
Depth	Matrix		Re	dox Featu	ıres		<u>-</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	<u> </u>	Remarks	3
0-3	10 YR 4/2	100				,	SILT LOAM	Л		
3-16	10 YR 5/2	75	10 YR 4/4	10	С	M	SILT LOAM	Л		
			7.5 YR 4/4	5	С	M	_			
			10 YR 5/1	5	D	М	_			
			7.5 YR 3/3	5	С	M	_			
Type: C	=Concentration, D=Dep	letion, RI	M=Reduced Matrix,	CS=Cove	red or Coa	ated San	d Grains. ² Lo	ocation: PL=Pore	e Lining, M=Matri	X.
Hydric So	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicators	for Problemation	c Hydric Soils ³ :	
Histo	osol (A1)		Sandy	Redox (S	5)		_	2 cm Muck	(A10)	
Histi	c Epipedon (A2)		Strippe	d Matrix (S6)			Red Paren	t Material (TF2)	
Blac	k Histic (A3)		Loamy	Mucky Mi	neral (F1)	(except	MLRA 1)	Other (Exp	lain in Remarks)	
Hydi	rogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2)		-			
Dep	leted Below Dark Surfa	ce (A11)	X Deplete	ed Matrix ((F3)					
Thic	k Dark Surface (A12)		Redox	Dark Surf	ace (F6)		³ Indic	ators of hydroph	ytic vegetation ar	nd
Sand	dy Muck Mineral (S2)		Deplete	ed Dark S	urface (F7)	wet	tland hydrology r	must be present,	
Sand	dy gleyed Matrix (S4)		Redox	Depression	ons (F8)		u	nless disturbed	or problematic.	
Restrictiv	ve Layer (if present):									
T										
Type:										
Depth (inc	ches):					Н	ydric Soil Pre	sent?	Yes X	No
Depth (inc						н	ydric Soil Pre	sent?	Yes <u>X</u>	No
Depth (incomments) YDROLOG						н	ydric Soil Pre	sent?	Yes X	No
Depth (incomments: YDROLOG Wetland	GY		fficient)			н	ydric Soil Pre		Yes X	
Depth (independent of the control of	GY Hydrology Indicators:		•	Stained Le	eaves (B9)			Secondary I		ore required)
Primary Ir	GY Hydrology Indicators: ndicators (any one indic		Water-	Stained Lo				Secondary I	ndicators (2 or m	ore required)
YDROLOG Wetland I Primary Ir Surfi	GY Hydrology Indicators: ndicators (any one indic ace Water (A1)		Water-					Secondary I Water-Stai 4A and	ndicators (2 or m	ore required)
YDROLOG Wetland I Primary Ir Surf High	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2)		Water- MLR Salt Cr	A 1, 2, 4 ust (B11)) (excep		Secondary I Water-Stai 4A and Drainage F	ndicators (2 or m ned Leaves (B9) 4B)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate	GY Hydrology Indicators: ndicators (any one indicators (A1) ace Water (A1) n Water Table (A2) uration (A3)		Water- MLR Salt Cr Aquatio	AA 1, 2, 4 A ust (B11) c Invertebr	A and 4B)) (excep		Secondary I Water-Stai 4A and Drainage F Dry-Seaso	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfa High Satu Wate	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3) er Marks (B1)		Water- MLR Salt Cr Aquatio Hydrog	AA 1, 2, 44 ust (B11) Invertebrien Sulfide	and 4B) rates (B13 e Odor (C1) (except)		Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation	ndicators (2 or m ned Leaves (B9) 4B) Patterns (B10) n Water Table (C	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surf High Satu Wate Sedi Drift	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3) er Marks (B1) iment Deposits (B2)		Water- MLR Salt Cr Aquatic Hydrog Oxidize	AA 1, 2, 44 ust (B11) c Invertebr gen Sulfide ed Rhizosp	and 4B) rates (B13 e Odor (C1) (exception))	t .	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga	Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3)		Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen	AA 1, 2, 4A ust (B11) Invertebraten Sulfide ed Rhizospace of Red	and 4B) rates (B13 e Odor (C1 oheres alo) (except))) ng Living	t -	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C) Visible on Aerial ic Position (D2)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga Iron Surfa	GY Hydrology Indicators: ndicators (any one indicators (any one indicators (A1) n Water Table (A2) uration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3) nl Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunted	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red	and 4B) rates (B13 e Odor (C1 oheres alo uced Iron) (except))) ng Living (C4) lowed So	g Roots (C3)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga Iron Surfa X Inun	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators) ace Water (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunter (B7) Water-	at A 1, 2, 44 ust (B11) c Invertebrien Sulfide ed Rhizospice of Red t Iron Red d or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C) Visible on Aerial ic Position (D2) quitard (D3) al Test (D5)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga Iron Surfa X Inun	GY Hydrology Indicators: ndicators (any one indicators (any one indicators (A1) n Water Table (A2) uration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3) nl Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Water- MLR Salt Cr Aquatic Hydrog Oxidize Presen Recent Stunter (B7) Water-	at A 1, 2, 44 ust (B11) c Invertebrien Sulfide ed Rhizospice of Red t Iron Red d or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P sed Plants) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant	ndicators (2 or m ned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LI	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga Iron Surfi X Inun Spai	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves	Imagery ve Surfac	Water- MLR Salt Cr Aquatio Hydrog Oxidize Presen Recent Stunter (B7) Other (e (B8)	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red c Iron Red d or Stress Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks)) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant	ndicators (2 or m ned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LI	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga Iron Surfi X Inun Spai	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) all Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves ervations: Vater Present?	Imagery ve Surfac	Water- MLR Salt Cr Aquation Oxidize Presen Recent Stunter ((B7) Other ((B8)	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks)) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant	ndicators (2 or mined Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (LI	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga Iron Surfi X Inun Spai Field Obs Surface V Water tab	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves	Imagery ve Surfac	Water- MLR Salt Cr Aquation Hydrog Oxidize Presen Recent Stunter (B7 Other (e (No X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in h (inches)	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks)) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3) oils (C6) RR A)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant Frost-Heav	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (Li ve Hummocks (D5)	ore required) (MLRA 1, 2,
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga Iron Surfi X Inun Spai Field Obs Surface W Water tab Saturation	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) all Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concave acervations: Vater Present? Yes alle Present? Yes	Imagery ve Surfac	Water- MLR Salt Cr Aquation Hydrog Oxidize Presen Recent Stunter (B7 Other (e (No X Dept Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red t Iron Red d or Stress Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks)) (exception)) ng Living (C4) lowed Sc (D1) (Li	g Roots (C3) oils (C6) RR A)	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (Li ve Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A) 7)
YDROLOG Wetland I Primary Ir Surfi High Satu Wate Sedi Drift Alga Iron Surfi X Inun Spai Field Obs Surface W Water tab Saturatior (includes	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) all Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaves arevations: Vater Present? Yes an Present? Yes an Present? Yes	Imagery ve Surfac	Water- MLR Salt Cr Aquation Hydrog Oxidize Presen Recent Stunter (B7) Other (e (No X Dept No X Dept	RA 1, 2, 4A ust (B11) c Invertebr gen Sulfide ed Rhizosp ace of Red c Iron Red d or Stress Explain in h (inches) h (inches)	and 4B) rates (B13 rat) (except)) ng Living (C4) lowed Sc (D1) (Li	t	Secondary I Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neutr Raised Ant Frost-Heav	ndicators (2 or moned Leaves (B9) 4B) Patterns (B10) n Water Table (C Visible on Aerial ic Position (D2) quitard (D3) al Test (D5) t Mounds (D6) (Li ve Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A) 7)

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty		Sampling [Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling F	Point:	48
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°			Long: 122.774606	S°	Datum:	WGS 84
Soil Map Unit Nam	ne: Water						NWI Classification:	PEM1R		
Are climatic / hydro	ologic conditions on the	ne site typical for the	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	;)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstance	es" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing :	sampling	point loca	ations,	transects, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen					ampled Are	а	Yes X	No		
Wetland Hydrology		Yes X No		within a	a Wetland?		<u>x</u>			
Remarks:	y i resent:	165 <u>X</u> 100	-							
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test workshee	et:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?		r of Dominant Specie			
1.						That Ar	e OBL, FACW, or FA	۱C:	2	(A)
2.						Total No	umber of Dominant	·		_
3.						Species	Across All Strata:		2	(B)
4.						Percent	of Dominant Specie	s		
		Total Cover:	0				e OBL, FACW, or FA		100%	_(A/B)
a a										
Shrub Stratum							ence Index Worksho		10° - 1 - 16	
1					. ——	-	tal % Cover of:		tiply by:	-
2.						OBL sp			0	-
3.							species		0	_
4.						FAC sp		x3 =	0	_
5.		Tatal Causes					pecies		0	-
Llaub Otratura		Total Cover:	0			UPL sp		x5 =	0	- (D)
Herb Stratum	di		20	V	FACW		Totals: 0		0	_(B)
1. Phalaris arund			30	Y	OBL	Preva	llence Index = B/A =	#DI\	V/U!	_
2. Eleocharis pal	ustris	_	30	<u>Y</u>	OBL	I le color a co	hadia Wanatatian In	dia ataua .		
3.		_	-			Hyarop	hytic Vegetation Inc			
4							1 - Rapid Test for I		egetation	
		_	-			X X	2 - Dominance Tes 3 - Prevalence Inde			
						#####				
•						-	4 - Morphological A			orting
		<u> </u>					data in Remarks or	•	,	
						-	5 - Wetland Non-V		_	- >
						-	Problematic Hydro	onytic vegeta	tion (Explaii	a)
11.										
M	that a	Total Cover:	60			1				
Woody Vine S							ors of hydric soil and ent, unless disturbed			
		_	-				·	or problemat	.10.	
2		Tatal Causes				Hydrop				
0/ D -	ro Cround in Heat Of	Total Cover:			•	Vegeta		Vac V	No	
	re Ground in Herb Str	atum 40 %	Cover of Bi	otic Crust	0	Presen	L f	Yes X	No	
Remarks:										

SOIL								Sar	npling Point:		48
Profile Des	scription: (Describ	e to the de	pth needed t	o document th	e indicat	or or co	onfirm the abse	ence of ind	icators.)		
Depth	 Matrix		•	Redox Featu					,		
(inches)	Color (moist)	%	Color (mo		Type ¹	Loc ²	– Texture		Po	marks	
0-16	10 YR 5/1	85	7.5 YR 4/4	10	C	PL	SILT LOAN		110	IIIdiks	
0-10	10 110 3/1		7.5 YR 4/4	5	C	M	<u> </u>				
	-		1.5 11(4/4		<u> </u>	IVI					
						· ——					
											
							_				
							_				
							_				
¹ Type: C=0	Concentration, D=De	pletion, RN	/=Reduced M	atrix, CS=Cove	red or Co	ated Sar	nd Grains. ² Lo	cation: PL	=Pore Lining, M:	=Matrix.	
Hydric Soi	il Indicators: (Appli	cable to a	II LRRs, unle	ss otherwise n	oted.)		Indicators	for Proble	matic Hydric So	oils³:	
Histos	sol (A1)		S	andy Redox (S	5)			2 cm	Muck (A10)		
Histic	Epipedon (A2)		s	tripped Matrix (36)		•	Red F	Parent Material (TF2)	
	Histic (A3)			oamy Mucky Mi) (except	t MLRA 1)		(Explain in Rem		
	gen Sulfide (A4)			oamy Gleyed M		-	,			,	
	eted Below Dark Surf	ace (A11)		epleted Matrix (,					
	Dark Surface (A12)	, ,		edox Dark Surf			³ Indic	ators of hyd	drophytic vegeta	tion and	
	y Muck Mineral (S2)			epleted Dark Si		7)		-	logy must be pre		
	y gleyed Matrix (S4)			edox Depressio		,		=	bed or problema		
Restrictive	E Layer (if present):			· · · · · · · · · · · · · · · · · · ·							
Type:											
Depth (inch	nes):					Н	lydric Soil Pre	sent?	Yes X		No
HYDROLOG	Y										
Wetland H	ydrology Indicators	s:									
Primary Inc	dicators (any one ind	cator is suf	fficient)					Secon	dary Indicators (2	2 or more	required)
Surfa	ce Water (A1)		W	/ater-Stained Le	eaves (B9	excep) (excep	ot .	Wate	r-Stained Leaves	s (B9) (ML	.RA 1, 2,
X High	Water Table (A2)			MLRA 1, 2, 4A	and 4B))		4A	and 4B)		
Satura	ation (A3)		s	alt Crust (B11)				Drain	age Patterns (B1	10)	
Water	r Marks (B1)		A	quatic Invertebr	ates (B13	3)		Dry-S	eason Water Ta	ıble (C2)	
Sedin	nent Deposits (B2)		н	ydrogen Sulfide	Odor (C	1)		Satur	ation Visible on A	Aerial Imag	gery (C9)
Drift [Deposits (B3)		0	xidized Rhizosp	heres ald	ong Livin	g Roots (C3)	Geon	orphic Position	(D2)	
Algal	Mat or Crust (B4)		P	resence of Red	uced Iron	(C4)		Shallo	ow Aquitard (D3))	
Iron D	Deposits (B5)		R	ecent Iron Redu	uction in F	Plowed S	Soils (C6)	FAC-	Neutral Test (D5	5)	
	ce Soil Cracks (B6)			tunted or Stress	ed Plants	s (D1) (L	.RR A)	Raise	d Ant Mounds ([D6) (LRR .	A)
Inund	ation Visible on Aeria	al Imagery	(B7) O	ther (Explain in	Remarks	s)		Frost-	Heave Hummod	ks (D7)	
Spars	sely Vegetated Conca	ave Surface	e (B8)								
Field Obse											
	ater Present? Ye		No X	Depth (inches)		8					
Water table Saturation		es X es X	No	Depth (inches) Depth (inches)		<u>8</u>	Wetland Hy	drology P	resent? Ye	es X	No
	apillary fringe)	<u> </u>		_ op (eee)			''''			<u> </u>	
	corded Data (stream	gauge, mo	nitoring well, a	aerial photos, pr	evious ins	spections	s), if available:				
Remarks:											

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty		Sampling [Date:	7/18/2014
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling F	Point:	49
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	DLC37, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	x, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967°			Long: 122.774606	S°	Datum:	WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam					NWI Classification:	PFO1R		
Are climatic / hydro	ologic conditions on t	he site typical for the	his time of y	/ear?	Yes	X	No	(If no, explain	in Remarks	;)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstance	s" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	tach site map s	showing	sampling	point loca	ations,	transects, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1							
Hydric Soil Presen					ampled Are		Yes X	No		
Wetland Hydrology				Within	a Wetland?					
Remarks:	y 1 1000m.	100 <u>X</u> 100								
VEGETATION										
			Absolute	Dominant	Indicator		nce Test workshee			
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?		of Dominant Specie OBL, FACW, or FA			
Fraxinus latifo	lia		30	<u>Y</u>	FACW		, ,		2	_(A)
							umber of Dominant Across All Strata:			(D)
3.						Opedies	ACIOSS All Strata.		2	_(B)
4							of Dominant Specie		1000/	(A /D)
		Total Cover:	30			That An	e OBL, FACW, or FA	.C:1	100%	_(A/B)
Shrub Stratum						Prevale	nce Index Workshe	et:		
							tal % Cover of:		tiply by:	
2.						OBL sp			0	=
3.							species		0	-
1						FAC sp	ecies	x3 =	0	<u>-</u>
5.						FACU s	pecies	x4 =	0	= =
		Total Cover:	0			UPL sp	ecies	x5 =	0	_
Herb Stratum						Column	Totals: 0	(A)	0	_(B)
1. Phalaris arund	linacea		100		FACW	Preva	lence Index = B/A =	#DI\	V/0!	_
Carex obnupta	9		10		OBL					
3						Hydrop	hytic Vegetation Inc			
4							1 - Rapid Test for H		egetation	
					·	X	2 - Dominance Tes			
					·	#####	3 - Prevalence Inde			
0						-	4 - Morphological A			orting
•					· ———	-	data in Remarks or 5 - Wetland Non-Va	•	,	
							Problematic Hydro			n)
					·		Froblematic riyuro	Jilylic vegela	uon (Expiai	.1)
11.		Total Cover:	110							
Woody Vine S	tratum	Total Gover.				1Indicate	ors of hydric soil and	wetland hydr	ology must	
1.	tratam						ent, unless disturbed			
2.					. ————	I leade see	L4!-			
		Total Cover:	0			Hydrop Vegeta				
% Ba	re Ground in Herb St				0	Presen		Yes X	No	
Remarks:					- -	<u>I</u>		-		

SOIL								Sampling F	Point:	49
Profile De	escription: (Describe	to the de	epth needed to do	cument th	e indicat	or or co	onfirm the absence	e of indicators	s.)	
Depth	Matrix		Re	edox Featu	ires					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	- Texture		Remarks	
0-3	10 YR 4/2	90	10 YR 4/4	5	С	M	SILT LOAM			
			10 YR 6/1	5	D	М				
3-16	10 YR 5/1	75	10 YR 3/4	5	С	М	SILT LOAM			
			7.5 YR 4/4	20	С	М				
-	_									
¹ Type: C=	=Concentration, D=Dep	oletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated Sar	nd Grains. ² Locat	tion: PL=Pore!	Lining, M=Matrix.	
Hydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicators for	r Problematic I	Hydric Soils ³ :	
	osol (A1)			Redox (S				2 cm Muck (A10)	
Histi	c Epipedon (A2)		Strippe	ed Matrix (S6)			Red Parent I	Material (TF2)	
Blac	k Histic (A3)		Loamy	Mucky Mi	neral (F1)) (except	t MLRA 1)	Other (Expla	in in Remarks)	
Hydr	rogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2))		_		
Depl	leted Below Dark Surfa	ce (A11)	X Deplet	ed Matrix (F3)					
Thic	k Dark Surface (A12)		Redox	Dark Surfa	ace (F6)		³ Indicato	rs of hydrophyt	tic vegetation and	
Sand	dy Muck Mineral (S2)		Deplet	ed Dark Sı	urface (F7	7)	wetlar	nd hydrology mi	ust be present,	
Sand	dy gleyed Matrix (S4)		Redox	Depression	ns (F8)		unle	ess disturbed or	problematic.	
Restrictiv	e Layer (if present):									
Type:										
Depth (inc	ches):					Н	lydric Soil Prese	nt?	Yes X	No
Remarks:						<u> </u>				
HYDROLOG Wetland I	GY Hydrology Indicators:									
	ndicators (any one indic		fficient)					Secondary Inc	dicators (2 or more	required)
	ace Water (A1)	ator 10 0a		Stained Le	eaves (B9) (excer	ot		ed Leaves (B9) (ML	
	Water Table (A2)			RA 1, 2, 4A	•			4A and 4		
	ration (A3)			rust (B11)	,			– Drainage Pa		
	er Marks (B1)			c Invertebr	ates (B13	3)		_	Water Table (C2)	
	ment Deposits (B2)			gen Sulfide				_	isible on Aerial Imag	gery (C9)
	Deposits (B3)						g Roots (C3)	_	Position (D2)	, ,
	l Mat or Crust (B4)			nce of Red		-	· ,	 Shallow Aqu		
	Deposits (B5)		Recen	t Iron Redu	uction in F	Plowed S	Soils (C6)	FAC-Neutral		
Surfa	ace Soil Cracks (B6)		Stunte	d or Stress	sed Plants	s (D1) (L	.RR A)		Mounds (D6) (LRR	A)
X Inun	dation Visible on Aerial	Imagery	(B7) Other (Explain in	Remarks	3)		Frost-Heave	Hummocks (D7)	
Spar	rsely Vegetated Concav	ve Surfac	e (B8)					-		
Field Obs	servations:									
Surface W	Vater Present? Yes	3	No X Dept	th (inches)	:					
	le Present? Yes			th (inches)						
	n Present? Yes capillary fringe)	· —	No X Dept	th (inches)	·		Wetland Hydr	ology Present	? Yes <u>X</u>	No
	ecorded Data (stream g	auge, mo	nitoring well, aerial	photos, pr	evious in	spections	s), if available:			
Domarko:										
Remarks:										

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty			Sam	pling Date:	11/11/2015
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sam	pling Point:	50
Investigator(s):	B. Haddaway, K. Biafo	ra		Section	n, Township	, Range:	DLC37	, T4N, R1W	/		
Landform (hillslope	e, terrace, etc.): <u>H</u>	illslope		_ Local re	elief (concav	e, convex	, none):	none		Slope (%): <u>3-5%</u>
Subregion (LRR):	Northwest Forests and	Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460	6°	Dati	um: WGS 84
Soil Map Unit Nam								ssification:	none		
Are climatic / hydr	ologic conditions on the	site typical for t	his time of y	/ear?	Yes 2	X	No		(If no, e	explain in Rema	arks)
Are Vegetation	, Soil,						Iormal C	ircumstanc	es" Pres	ent? Yes X	No
Are Vegetation	, Soil,	or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	iswers ir	Remarks.)	
SUMMARY OF	FINDINGS - Attac	h site map s	showing	sampling	point loca	ations, 1	ransed	cts, impo	rtant fe	eatures, etc.	
Hydrophytic Veget	ation Present? Y	es X No	1								
Hydric Soil Preser		es X No			ampled Area a Wetland?	a	Yes	Χ	No		
Wetland Hydrolog	y Present? Y	es X No		WILLIIII	a wellanu:						
Remarks:	•										
VEGETATION											
Tree Stratum (U	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?			st workshe			
Fraxinus latifo	,		10	Y	FACW	That Are	e OBL, F	ACW, or F	AC:	4	(A)
2.						Total Nu	ımber of	Dominant			
3				-		Species	Across	All Strata:		5	(B)
4				-		Percent	of Domi	nant Specie	es		
		Total Cover:	10			That Are	e OBL, F	ACW, or F	AC:	80%	(A/B)
Shrub Stratum				.,	FAC			ex Worksh	eet:		
1. Rosa nutkana				Y	FAC FAC		tal % Co			Multiply by:	
 Crataegus doi 3. 	ugiasii		10	Y	FAC	OBL spe				0	
4.						FAC spe	-			0	
5.						•					
Jo		Total Cover:	40			UPL spe			x5 =	0	
Herb Stratum						Column				0	(B)
1. Phalaris arund	dinacea		40	Υ	FACW			dex = B/A =			`` /
2. Rubus ursinus	3		30	Υ	FACU						
3. Galium aparin	е		2		FACU	Hydrop	hytic Ve	getation In	dicators	s:	
4							1 - Rap	id Test for	Hydroph	ytic Vegetation	
5						X		ninance Te			
6						#####		valence Ind			
7									•	on1 (Provide su	upporting
										eparate sheet)	
								tland Non-V			
							Probler	matic Hydro	phytic V	egetation¹ (Exp	olain)
11		Total Cayan									
Moody Vino S	tratum	Total Cover:				1,				d leccales accesses	_4
Woody Vine S	<u>olialuiii</u>							aric soil and ss disturbed		d hydrology mu lematic.	Sī
2.							-		p.o.		
		Total Cover:	0	-	-	Hydrop Vegetat					
% Ba	re Ground in Herb Stratu				0	Present			Yes X	No	
Remarks:											
1											

SOIL								S	Sampling Point	:	50
Profile Des	scription: (Describe t	to the de	pth needed	to document	he indica	tor or c	onfirm the al	sence of i	ndicators.)		
Depth	Matrix			Redox Fea							
(inches)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc				Remarks	
0-4	10 YR 3/2	100					SILT LO				
4-9	10 YR 3/1	80	10 YR 5/2	15		_ <u>M</u>	SILT LO	AM_			
0.40	40 VD 0/4		5 YR 4/6		<u>C</u>	<u>M</u>		-			
9-16	10 YR 2/1	90	10 YR 4/1) <u>D</u>	<u>M</u>	SILT LO	AM			
								 -			
								 -			
	-				_						
¹ Type: C=	Concentration, D=Depl	etion, RN	/=Reduced N	Matrix, CS=Cov	ered or C	oated S	and Grains.	² Location: I	PL=Pore Linin	g, M=Matrix.	
Hydric Soi	il Indicators: (Applica	able to a	II LRRs, unle	ess otherwise	noted.)		Indicato	rs for Prok	olematic Hydr	ric Soils³:	
	sol (A1)			Sandy Redox (m Muck (A10)		
	Epipedon (A2)			Stripped Matrix					d Parent Mate	` ,	
	Histic (A3)			_oamy Mucky N			pt MLRA 1)	Oth	ner (Explain in	Remarks)	
	ogen Sulfide (A4)	(8.4.4)		_oamy Gleyed		2)					
	eted Below Dark Surface	æ (A11)		Depleted Matrix			3 _{ln}	diagtors of l	hydrophytic ve	actation and	
	Dark Surface (A12) y Muck Mineral (S2)			Redox Dark Su Depleted Dark :					Irology must b	-	
	y gleyed Matrix (S4)			Redox Depress	,	1)	,	-	sturbed or prob		
	e Layer (if present):			Todox Doprood	10110 (1 0)				nuibou oi pion		
Type:											
Depth (inch	nes):						Hydric Soil F	Present?	Ye	s X	No
Remarks:	· -										-
HYDROLOG	Υ										
Wetland H	ydrology Indicators:										
Primary Inc	dicators (any one indica	ator is suf	ficient)					Seco	ondary Indicate	ors (2 or mor	e required)
Surfa	ce Water (A1)		\	Water-Stained	Leaves (B	9) (exc e	ept	Wa	iter-Stained Le	eaves (B9) (N	/ILRA 1, 2,
High	Water Table (A2)			MLRA 1, 2, 4	A and 4E	3)			4A and 4B)		
	ation (A3)			Salt Crust (B11					ainage Pattern		
	r Marks (B1)			Aquatic Invertel					/-Season Wate		
	nent Deposits (B2)			Hydrogen Sulfic			·		turation Visible		agery (C9)
	Deposits (B3)			Oxidized Rhizo		-	ing Roots (C3		omorphic Posi		
	Mat or Crust (B4)			Presence of Re			Soile (C6)		allow Aquitard	` '	
	Deposits (B5) ce Soil Cracks (B6)			Recent Iron Re Stunted or Stre					C-Neutral Tes [.] ised Ant Moun		2 Δ\
	ation Visible on Aerial	Imagery		Other (Explain i			(LIXIX A)		st-Heave Hum		
	sely Vegetated Concav			outor (Explain)		,				mileone (B1)	
Field Obse			(20)								
	ater Present? Yes		No X	Depth (inches	s):						
Water table			No X	Depth (inches			W 41 1		D 40	V V	
Saturation (includes c	Present? Yes apillary fringe)		No X	Depth (inches	s):		Wetland	Hydrology	Present?	Yes X	_ No
	corded Data (stream ga	auge, mo	nitoring well.	aerial photos.	orevious ii	nspectio	ns), if availabl	le:			
	. 3-			, -,,			,.				
Remarks:											

Project/Site:	Plas Newydd Farn	า		City/County:	Clark Cou	nty		Sampling I	Date:	11/11/2015
Applicant/Owner:	Plas Newydd Farn	า					State: WA	_ Sampling I	Point:	51
Investigator(s):	B. Haddaway, K. E	Biafora		Section	n, Township	, Range:	DLC37, T4N, R1V	V		
Landform (hillslope	e, terrace, etc.):	Hillslope		_ Local re	elief (concav	e, convex	k, none): none		Slope (%)	: 5-8%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967°			Long: 122.77460)6°	Datum	n: WGS 84
Soil Map Unit Nam	e: Olympic ve	ry stony clay loam					NWI Classification:	none		
Are climatic / hydro	ologic conditions on	the site typical for the	his time of y	/ear?	Yes	X	No	_(If no, explair	n in Remark	is)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstand	es" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any a	nswers in Rem	arks.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations,	transects, impo	ortant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes No	X							
Hydric Soil Present	t?	Yes No	X		ampled Are a Wetland?		Yes	No X		
Wetland Hydrology	Present?	Yes No		Within	a Welland:					
Remarks:		<u> </u>								
VEGETATION			Absolute	Dominant	Indicator	Domina	ance Test workshe	not.		
Tree Stratum (Us	se scientific names.)		Species?	Status?		of Dominant Spec			
Pseudotsuga r	menziesii		50	Υ	FACU	That Ar	e OBL, FACW, or F	AC:	0	(A)
2. Quercus garry	ana		30	Υ	FACU	Total No	umber of Dominant	<u>-</u>		
3				-		Species	Across All Strata:		6	(B)
4						Percent	of Dominant Speci	es		
		Total Cover:	80			That Ar	e OBL, FACW, or F	AC:	0%	(A/B)
Shrub Stratum						Provale	ence Index Worksh	noot:		
Symphoricarpo	ns alhus		15	Υ	FACU		tal % Cover of:		Itiply by:	
Amelanchier a			40		FACU	OBL sp		x1 =	0	_
3.							species		0	_
4.						FAC sp		x3 =	0	_
5.							pecies	x4 =	0	_
		Total Cover:	55			UPL sp	ecies	x5 =	0	<u> </u>
Herb Stratum						Column	Totals: 0	(A)	0	(B)
1. Polystichum m	unitum		50		FACU	Preva	lence Index = B/A =	=#DI	V/0!	_
2. Geranium robe	ertianum		15	Υ	UPL					
Claytonia perfo	oliata		10		FAC	Hydrop	hytic Vegetation I			
4							1 - Rapid Test for		egetation	
					· ——		2 - Dominance Te			
•					·	#####	3 - Prevalence Inc			
					· ——		4 - Morphological			porting
·					· ——		data in Remarks	•	,	
							5 - Wetland Non-			
					·		Problematic Hydro	opnytic vegeta	tion (Expla	ıln)
11		Total Cover:	75							
Woody Vine S	tratum	Total Cover.				1Indicate	ors of hydric soil an	d watland bydr	ology must	
. '							ent, unless disturbe			
2.		·				•				
-		Total Cover:	0			Hydrop Vegeta	•			
% Bai	re Ground in Herb S				0	Presen		Yes	No X	
Remarks:						I .				

	scription. (Describe	to the dep	oth needed to			or confirm	ille abse	iice oi iiiaicat	ors.)	
Depth	Matrix			Redox Feat						
inches)	Color (moist)	<u>%</u>	Color (moist)) %	Type ¹	Loc ²	Texture		Remarks	3
-3	10 YR 2/1	100				<u>SL</u>	-			
					· —— -	<u> </u>				
Type: C=0	Concentration, D=Dep	oletion, RM	=Reduced Matr	ix, CS=Cove	ered or Coate	ed Sand Grai	ins. ² Loo	cation: PL=Po	re Lining, M=Matr	ix.
ydric Soi	I Indicators: (Applic	able to all	LRRs, unless	otherwise r	noted.)	Inc	dicators	for Problemat	ic Hydric Soils ³ :	
_ Histos	sol (A1)			dy Redox (S			_	2 cm Muc		
	Epipedon (A2)			pped Matrix (_		nt Material (TF2)	
_	Histic (A3)		Loai	my Mucky M	ineral (F1) (e	except MLR	A 1) _	Other (Ex	plain in Remarks)	
Hydro	gen Sulfide (A4)		Loai	my Gleyed M	latrix (F2)					
Deple	ted Below Dark Surfa	ce (A11)	Dер	leted Matrix	(F3)					
Thick	Dark Surface (A12)		Red	ox Dark Surf	face (F6)		³ Indica	ators of hydrop	hytic vegetation a	nd
Sandy	/ Muck Mineral (S2)		Dep	leted Dark S	urface (F7)		wet	and hydrology	must be present,	
Sandy	gleyed Matrix (S4)		Red	ox Depression	ons (F8)		ur	nless disturbed	or problematic.	
estrictive	Layer (if present):									
vpe: Ro	ck									
epth (inch		flow	3			Hydric	Soil Pres	sent?	Yes	No <u>X</u>
	es): ea underlain by basalt	flow	3			Hydric	Soil Pres	sent?	Yes	<u>No X</u>
epth (inch marks: Are	es):ea underlain by basalt		3			Hydric	Soil Pres	sent?	Yes	No <u>X</u>
epth (inch marks: Are DROLOG	ea underlain by basalt Y ydrology Indicators:					Hydric :	Soil Pres			
epth (inch narks: Are DROLOG /etland H rimary Ind	ea underlain by basalt Y ydrology Indicators:		icient)				Soil Pres	Secondary	Indicators (2 or m	ore require
DROLOG Vetland H rimary Ind	ea underlain by basalt Y ydrology Indicators: licators (any one indicators (A1)		icient) Wat	er-Stained L			Soil Pres	Secondary Water-Sta	Indicators (2 or mained Leaves (B9)	ore require
DROLOG /etland H rimary Ind Surfac High \	y ydrology Indicators: licators (any one indicators (A1) Water Table (A2)		icient) Wat	ILRA 1, 2, 4/	A and 4B)		Soil Pres	Secondary Water-Sta	Indicators (2 or mained Leaves (B9)	ore require
DROLOG Vetland H rimary Ind Surfac High \ Satura	ea underlain by basalt Y ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3)		icient) Wat Salt	I LRA 1, 2, 4 / Crust (B11)	A and 4B)		Soil Pres	Secondary Water-Sta 4A and Drainage	Indicators (2 or mained Leaves (B9)	ore require (MLRA 1,
DROLOG Tetland H Timary Ind Surfac High \ Satura Water	y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1)		icient) Mat M Salt Aqu	ILRA 1, 2, 4, Crust (B11) atic Inverteb	A and 4B) rates (B13)		Soil Pres	Secondary Water-Sta 4A and Drainage Dry-Seaso	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1,
DROLOG Vetland H rimary Ind Surfac High \ Satura Water Sedim	y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		icient) Wat Salt Aqu Hyd	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide	A and 4B) rates (B13) e Odor (C1)	except	- - - - -	Secondary Water-Sta 4A and Drainage Dry-Seaso Saturatior	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1,
DROLOG Vetland H rimary Ind Surfac High \ Satura Water Sedim	y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1)		icient) Wat Salt Aqu Hyd	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide	A and 4B) rates (B13) e Odor (C1)		- - - - -	Secondary Water-Sta 4A and Drainage Dry-Seaso Saturatior	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1,
PROLOG Vetland H rimary Ind Surfac High V Satura Water Sedim Drift E	y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		icient) Wat Salt Aqu Hyd Oxice	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide	A and 4B) rates (B13) e Odor (C1) pheres along	except	- - - - -	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpi	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1,
DROLOG Vetland H rimary Ind Surfac High V Satura Water Sedim Drift E Algal	y ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3)		icient) Wat M Salt Aqu Hyd Oxic	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide dized Rhizos sence of Rec	A and 4B) rates (B13) e Odor (C1) pheres along	except	- - - - - - - - - - - - - - - - - - -	Secondary Water-Sta 4A and Drainage Dry-Sease Saturatior Geomorph Shallow A	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2)	ore require (MLRA 1,
DROLOG Vetland H rimary Ind Satura Water Sedim Drift D Algal Iron D Surfac	y y ydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6)	: cator is suff	icient) Wat Salt Aqu Hyd Oxic Pres Rec Stur	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide dized Rhizos sence of Rec	A and 4B) rates (B13) e Odor (C1) pheres along duced Iron (Cuction in Plo	except g Living Root (24) wed Soils (C	 	Secondary Water-Sta 4A and Drainage Dry-Sease Saturatior Geomorpl Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2)	ore require (MLRA 1 , C2) Imagery (C
DROLOG /etland H rimary Ind Surfac High \ Satura Water Sedim Drift D Algal Iron D Surfac	y yydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	: cator is suff	icient) Wat Salt Aqu Hyd Oxic Pres Rec Stur	ILRA 1, 2, 4/ Crust (B11) atic Inverteb rogen Sulfide dized Rhizos sence of Rec ent Iron Red	A and 4B) rates (B13) e Odor (C1) pheres along duced Iron (Cuction in Plo	except g Living Root (24) wed Soils (C	 	Secondary Water-Sta 4A and Drainage Dry-Sease Saturatior Geomorpi Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3) tral Test (D5)	ore require (MLRA 1, C2) Imagery (C
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DROLOG Vetland H rimary Ind Surfac High V Satura Water Sedim Drift E Algal Iron D Surfac Inund: Spars ield Obse aturation	y ydrology Indicators: licators (any one indicators (any one indicators (any one indicator) (attention (A3) Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Detaition Visible on Aerial (B4) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B5) Deposits (B6) Deposits (B6) Deposits (B7)	eator is suff I Imagery (I ve Surface	icient) Wat M Salt Aqu Hyd Oxio Pres Rec Stur 37) Othe (B8)	Crust (B11) atic Inverteb rogen Sulfide dized Rhizos sence of Recent Iron Red atted or Stress er (Explain in	A and 4B) rates (B13) e Odor (C1) pheres along duced Iron (C uction in Plo sed Plants (I n Remarks)	except g Living Root (A) wed Soils (C (D1) (LRR A)	es (C3)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturatior Geomorpi Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3) tral Test (D5) ont Mounds (D6) (Love Hummocks (D6)	ore require (MLRA 1, C2) Imagery (C
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Landborn Millslope Lerace, etc.	Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty			Sampli	ing Date:	11/11/2015
Landform (nillslope, terrace, etc.): Hillslope Landform (nillslope), terrace, etc.): Hillslope Landform (nillslope), terrace, etc.): Hillslope Landform (normalized state) Landford (normalized state)	Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampli	ing Point:	52
Submejoin (LRR): Northwest Enrests and Coset (LRR A) Late 45.850967" Long: 122.774606" Datum: WCS 84 SOM Map Unit Name: Ohympic very story day joan Apacitation Northwest Northw	Investigator(s):	B. Haddaway, K. Bia	fora		Section	n, Township	, Range:	DLC37	, T4N, R1W	1		
Sol Map Unit Name: Oympic very story day loam	Landform (hillslope	e, terrace, etc.):	Hillslope		_ Local re	elief (concav	e, convex	, none):	none		Slope (%): <u>0-2%</u>
Are cilimatic / hydrologic conditions on the site hydrology Salignificantly disturbed? Are 'Normal Circumstances' Present? Yes X No (If needed, explain any answers in Remarks) Are Vegetation Soil or rhydrology naturally problematic? Yes X No (If needed, explain any answers in Remarks) Yes X No (If needed, explain any answers in Remarks) Yes X No (If needed, explain any answers in Remarks) Yes X No (If needed, explain any answers in Remarks) Yes X No Yes X Yes X No Yes X Yes X No Yes X Yes X No Yes X Yes	Subregion (LRR):	Northwest Forests ar	nd Coast (LRR A) Lat:	45.850967°	0		Long:	122.77460	3°	Datur	m: WGS 84
Are Vegetation Soil or Hydrology algorificantly disturbed? Are *Normal Circumstances* Present? Yes X No naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No third a Wetland? Wetland Hydrology Present? Yes X No within a Wetland? Wetland Hydrology Present? Yes X No within a Wetland? Wetland Hydrology Present? Yes X No Tensers: WEGETATION VEGETATION V	•								ssification:	none		
Soli	Are climatic / hydro	ologic conditions on the	e site typical for t	his time of y	/ear?	Yes 2	X	No		(If no, exp	olain in Remar	ks)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No within a Wetland? Yes X No within a Wetland? Yes X No within a Wetland? Wetland Hydrology Present? Yes X No within a Wetland? VEGETATION VEGETATION Absolute Dominant Indicator Species? Status? No Cover Species? Status? 1. Fraxinus latifolia 20 Y FACW Total Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B) Prevalence Index Worksheet: Total Cover: 20 FAC Species X 1 = 0 FAC Species X 2 = 0 FAC Species X 3 =	Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Iormal C	ircumstance	es" Preser	nt? Yes X	No
Hydrophytic Vegetation Present?	Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any an	swers in F	Remarks.)	
Section Present? Yes No Wetland? Yes X No Wetland Hydrology Present? Yes X No	SUMMARY OF	FINDINGS – Atta	ch site map s	showing	sampling	point loca	ations, 1	transec	cts, impo	rtant fea	tures, etc.	
Section Present? Yes No Wetland? Yes X No Wetland Hydrology Present? Yes X No	Hvdrophytic Veget	ation Present?	Yes X No)								
VEGETATION							a	Yes	Χ	No		
Name	,				within	a wetiand?						
Absolute Cover Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Status Species Spec	_	,										
Treat Stratum Use scientific names. % Cover Species? Status? Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)	VEGETATION											
The stratum The script That Are OBL, FACW, or FAC: 3 (A)	T Ot											
Total Number of Dominant Species Across All Strata: 3 (B)	,	•							•		•	(4)
Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)	-	lia			<u> </u>	TACW	Total Nu	ımhar of	Dominant	-	3	(A)
Percent of Dominant Species	-										3	(B)
Total Cover: 20	-						Doroont	of Domi	nant Cnasis			(5)
Prevalence Index Worksheet: Total % Cover of:			Total Cover:	20							100%	(A/B)
1. Spiraea douglasii 1. Spiraea douglasii 2.								,	, ,			` /
OBL species X1 0	Shrub Stratum						Prevale	nce Ind	ex Workshe	et:		
FACW species x2 = 0	Spiraea dougl	asii		15	Υ	FACW	To	tal % Co	ver of:		Multiply by:	
FAC species X3 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X5 = 0 FACU	2.						OBL spe	ecies		x1 =	0	
FACU species	3						FACW s	species		x2 =	0	
Total Cover: 15	4						FAC spe	ecies		x3 =		
Column Totals: 0	5									x4 =	0	
1. Phalaris arundinacea			Total Cover:	15								_
2.						E4 0)4/						(B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation	-	dinacea		100	Y	FACW	Preva	lence Ind	dex = B/A =		#DIV/0!	_
1 - Rapid Test for Hydrophytic Vegetation	-									Partie		
X 2 - Dominance Test is >50% ##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. Total Cover: 100 1 10 1 10 1 10 1 1							Hyarop		_			
##### 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 Problematic Hydrophytic Vegetation¹ (Explain) Total Cover: 100 Woody Vine Stratum 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Total Cover: 0 Hydrophytic Vegetation Fresent? Yes X No	_										•	
4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular PlantS2 10						- ——						
data in Remarks or on a separate sheet) 9.	7						******					norting
9			-							•	,	porting
10	_		<u> </u>							•	•	
Total Cover: 100 Woody Vine Stratum 1. Total Cover: 0 Bare Ground in Herb Stratum	-											ain)
Total Cover: 100 Woody Vine Stratum 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 2. Hydrophytic Vegetation Yes X No										,,	,	/
to the present, unless disturbed or problematic. Total Cover: 0			Total Cover:	100								
1. be present, unless disturbed or problematic. 2. Hydrophytic Vegetation Present? Yes X No	Woody Vine S	stratum_					1Indicate	ors of hy	dric soil and	wetland h	nydrology mus	t
Total Cover: 0 Vegetation % Bare Ground in Herb Stratum % Cover of Biotic Crust 0 Present? Yes X No	1.											
Total Cover:0	2.						Hydron	hytic				
% Bare Ground in Herb Stratum % Cover of Biotic Crust 0 Present? Yes X No												
	% Ba	re Ground in Herb Stra	ntum%	Cover of Bi	otic Crust	0				Yes X	No	
	Remarks:											

				ea to aoci	ument th	e muicati		iiiiiiii tiic ab				
Depth	Matrix			Red	dox Featu	res		_				
(inches)	Color (moist)	<u>%</u>	Color (ı	moist)	%	Type ¹	Loc ²	Textu	re		Remarks	
0-3	10 YR 3/1	100						SILT LOA	AM_			
3-7	10 YR 3/1	85	10 YR 4/4		10	С	M	SILT LOA	AM_			
			10 YR 4/1	1	5	<u>D</u>	M	_				
7-16	10 YR 2/1	100						SILT LOA	AM_			
	_											
¹ Type: C	=Concentration, D=Dep	letion, RI	M=Reduced	d Matrix, C	CS=Cove	red or Coa	ated Sar	nd Grains. ² l	Location	: PL=Pore Lir	ning, M=Matrix.	
Hydric S	oil Indicators: (Applic	able to a	ıll LRRs, uı	nless oth	erwise n	oted.)		Indicator	rs for Pr	oblematic Hy	rdric Soils³:	
Hist	osol (A1)			Sandy F	Redox (S5	5)			2	2 cm Muck (A1	0)	
Hist	ic Epipedon (A2)			Stripped	d Matrix (S	86)			F	Red Parent Ma	aterial (TF2)	
Blac	ck Histic (A3)			Loamy N	Mucky Mir	neral (F1)	(except	MLRA 1)	0	Other (Explain	in Remarks)	
Hyd	rogen Sulfide (A4)			Loamy (Gleyed Ma	atrix (F2)						
Dep	leted Below Dark Surfa	ce (A11)		Deplete	d Matrix (F3)						
	ck Dark Surface (A12)		X	Redox D	Dark Surfa	ace (F6)					vegetation and	
	dy Muck Mineral (S2)				d Dark Su)	W		nydrology mus		
	dy gleyed Matrix (S4)			Redox D	Depressio	ns (F8)			unless	disturbed or pr	roblematic.	
Restricti	ve Layer (if present):											
Tuno												
	ches):						н	lydric Soil P	resent?	,	Yes X	No
Depth (independent of the period of the peri	GY						Н	lydric Soil P	resent?	,	Yes <u>X</u>	No
Depth (incention of the content of t	GY Hydrology Indicators:						н	lydric Soil P				
Depth (incention of the property of the proper	GY Hydrology Indicators: ndicators (any one indic		fficient)			(00)			Se	econdary Indic	ators (2 or mor	e required
Depth (incention of the primary line) Depth (incention of the primary line) Depth (incention of the primary line) Surfice of the primary line o	GY Hydrology Indicators: ndicators (any one indic		fficient)		Stained Le	` '			Se	econdary Indic Water-Stained	ators (2 or mor Leaves (B9) (N	e required
Primary li High	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2)		fficient)	MLR	A 1, 2, 4A	` '				econdary Indic Water-Stained 4A and 4B)	eators (2 or mor Leaves (B9) (M	e required
YDROLO Wetland Primary II Surf High	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3)		fficient)	MLRA Salt Cru	A 1, 2, 4A ust (B11)	and 4B)) (excep			econdary Indic Vater-Stained 4A and 4B) Orainage Patte	eators (2 or mor Leaves (B9) (N	e required
YDROLO Wetland Primary II Surf High Satu	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3) ter Marks (B1)		fficient)	MLRA Salt Cru Aquatic	A 1, 2, 4A ust (B11) Invertebra	and 4B)) (excep		Se	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W	eators (2 or mor Leaves (B9) (N erns (B10) ater Table (C2)	e required
YDROLO Wetland Primary II Surf High Satu Wat Sed	Hydrology Indicators: Indicators (any one indi		fficient)	MLRA Salt Cru Aquatic Hydroge	A 1, 2, 4A ust (B11) Invertebra en Sulfide	and 4B) ates (B13 Odor (C1) (excep)	ot .		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi	eators (2 or mor Leaves (B9) (N erns (B10) ater Table (C2) ble on Aerial In	e required
YDROLO Wetland Primary II Surf High Satu Wat Sed Driff	GY Hydrology Indicators: ndicators (any one indicators (A1) n Water Table (A2) uration (A3) ter Marks (B1) iment Deposits (B2) t Deposits (B3)		fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp	and 4B) ates (B13 Odor (C1 heres alo) (excep))) ng Living			econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po	eators (2 or mor Leaves (B9) (Neater Table (C2) ble on Aerial Intosition (D2)	e required
YDROLO Wetland Primary II Surf High Satu Vat Sed Drift Alga	GY Hydrology Indicators: ndicators (any one indicators (any one indicators (any one indicators) face Water (A1) n Water Table (A2) uration (A3) ter Marks (B1) iment Deposits (B2) t Deposits (B3) al Mat or Crust (B4)		fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presence	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp de of Redu	ates (B13 Odor (C1 heres alo) (excep))) ng Living (C4)	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita	eators (2 or mor Leaves (B9) (Noterns (B10) ater Table (C2) ble on Aerial Imposition (D2) ard (D3)	e required
YDROLO Wetland Primary II Surf High Satu Vat Sed Drift Alga Iron	Hydrology Indicators: ndicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) on Water Table (A2) curation (A3) on Water Marks (B1) on Marks (B1) on the Deposits (B2) on the Deposits (B3) on the Mark or Crust (B4) Deposits (B5)		fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu	ates (B13 Odor (C1 heres alo uced Iron action in P))) ng Livin (C4) lowed S	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T	eators (2 or mor Leaves (B9) (Noterns (B10) eater Table (C2) ble on Aerial Intosition (D2) ard (D3) est (D5)	e required
YDROLO Wetland Primary II Satu Satu Sed Driff Alga Iron Surf	GY Hydrology Indicators: ndicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) n Water Table (A2) uration (A3) ter Marks (B1) iment Deposits (B2) t Deposits (B3) al Mat or Crust (B4) Deposits (B5) face Soil Cracks (B6)	ator is su		MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS
YDROLO Wetland Primary li Satu Sed Drift Alga Iron Surf	Hydrology Indicators: ndicators (any one indicators (any one indicators (any one indicators) and Water Table (A2) uration (A3) are Marks (B1) iment Deposits (B2) at Deposits (B3) al Mat or Crust (B4) Deposits (B5) face Soil Cracks (B6) indation Visible on Aerial	ator is su	——————————————————————————————————————	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or mor Leaves (B9) (Noterns (B10) eater Table (C2) ble on Aerial Intosition (D2) ard (D3) est (D5)	e required //LRA 1, 2) nagery (CS
YDROLO Wetland Primary II Surf High Satu Vat Sed Drift Alga Iron Surf Inur Spa	GY Hydrology Indicators: ndicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) n Water Table (A2) uration (A3) ter Marks (B1) iment Deposits (B2) t Deposits (B3) al Mat or Crust (B4) Deposits (B5) face Soil Cracks (B6)	ator is su	——————————————————————————————————————	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS
YDROLO Wetland Primary II Surf High Satu Vat Sed Drift Alga Iron Surf Inur Spa Field Obs	Hydrology Indicators: ndicators (any one indicators (A2) (and in Water Table (A2) (and in Water Table (A2) (and in Water Marks (B1) (and in Water Marks (B1) (and in Water Marks (B3) (and in Water Marks (B3) (and in Water Marks (B4) (and in Water Marks (B6) (and in W	Imagery /e Surfac	(B7) e (B8)	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2
YDROLO Wetland Primary II Surf High Satu Vat Sed Drift Alga Iron Surf Inur Spa Field Obs Surface V Water tab	Hydrology Indicators: ndicators (any one indicators gery	(B7) e (B8) X No X No X	MLR/ Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress Explain in in (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3) oils (C6) RR A)		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	eators (2 or mor Leaves (B9) (Noterns (B10) ater Table (C2) ble on Aerial Intosition (D2) ard (D3) est (D5) aunds (D6) (LRI ummocks (D7)	e required ILRA 1, 2 nagery (C9	
YDROLO Wetland Primary II Surf High Satu Wat Sed Drift Alga Iron Surf Inur Spa Field Obs Surface V Water tak Saturation	Hydrology Indicators: ndicators (any one indicators A3) (and indicators (B4)) (and indicators (B4)) (and indicators (B5)) (and indicators (B5)) (and indicators (B6)) (a	Imagery	(B7) e (B8)	MLR/ Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress Explain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (excep)) ng Livin (C4) lowed S (D1) (Ll	g Roots (C3) oils (C6) RR A)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial In osition (D2) ard (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2
YDROLO Wetland Primary II Surf High Satu Wat Sed Driff Alga Iron Surf Inur Spa Field Obs Surface V Water tat Saturation (includes	Hydrology Indicators: ndicators (any one indicators gery ve Surfac	(B7) e (B8) NoX NoX	MLR/ Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress Explain in in (inches): in (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks)) (excep)) ng Living (C4) lowed S (D1) (Ll	g Roots (C3) oils (C6) RR A) Wetland I		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	eators (2 or mor Leaves (B9) (Noterns (B10) ater Table (C2) ble on Aerial Intosition (D2) ard (D3) est (D5) aunds (D6) (LRI ummocks (D7)	e required //LRA 1, 2) nagery (CS	
YDROLO Wetland Primary II Surf High Satu Wat Sed Driff Alga Iron Surf Inur Spa Field Obs Surface V Water tat Saturation (includes	GY Hydrology Indicators: ndicators (any one indicators (any one i	Imagery ve Surfac	(B7) e (B8) NoX NoX	MLR/ Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu or Stress Explain in in (inches): in (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks)) (excep)) ng Living (C4) lowed S (D1) (Ll	g Roots (C3) oils (C6) RR A) Wetland I		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	eators (2 or mor Leaves (B9) (Noterns (B10) ater Table (C2) ble on Aerial Intosition (D2) ard (D3) est (D5) aunds (D6) (LRI ummocks (D7)	e required //LRA 1, 2) nagery (CS

Proje	ect/Site:	Plas Newydd Farm	ı		City/County:	: Clark Cour	nty		Sampling I	Date:	11/11/2015
Appli	icant/Owner:	Plas Newydd Farm	ı					State: WA	Sampling I	Point:	53
Inves	stigator(s):	B. Haddaway, K. E	Biafora		Section	n, Township	, Range:	DLC37, T4N, R1W	1		
Land	lform (hillslope	e, terrace, etc.):	Hillslope		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	5-8%
Subr	egion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°			Long: 122.77460	6°	Datum	n: WGS 84
Soil I	Map Unit Nam	ne: Olympic ve	ry stony clay loam					NWI Classification:	none		
Are c	climatic / hydro	ologic conditions on	the site typical for the	nis time of y	/ear?	Yes	X	No	(If no, explain	n in Remark	s)
Are \	/egetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstanc	es" Present?	Yes X	No
Are \	/egetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any ar	swers in Rem	arks.)	
SUN	MMARY OF	FINDINGS - A	tach site map s	showing	sampling	point loca	ations,	transects, impo	rtant featur	es, etc.	
Hydr	ophytic Veget	ation Present?	Yes No	Χ							
-	ic Soil Presen		Yes No	X		ampled Are a Wetland?		Yes	No X		
•	and Hydrology		Yes No		Within	a wellanu?					
	arks:	,									
VEG	SETATION										
Tree	Stratum (U:	se scientific names.))	Absolute % Cover	Dominant Species?	Indicator Status?	Number	ance Test worksher of Dominant Speci-	es		
1. <u>F</u>	Pseudotsuga i	menziesii		15	Υ	FACU	That Ar	e OBL, FACW, or F	AC:	1	(A)
2								umber of Dominant			
3							Species	Across All Strata:		5	_(B)
4							Percent	of Dominant Specie	es		
			Total Cover:	15			That Ar	e OBL, FACW, or F	AC:	20%	(A/B)
Shru	b Stratum						Provale	ence Index Worksh	not:		
	Symphoricarp	ns alhus		40	Υ	FACU		tal % Cover of:		Itiply by:	
_	Rubus leucode				Y	FACU	OBL sp			0	_
_	Rosa nutkana			10		FAC	-	species		0	_
4.							FAC sp		x3 =	0	_
5.					-	·		pecies	x4 =	0	_
			Total Cover:	80			UPL sp		x5 =	0	_
Herb	Stratum						Column	Totals: 0	(A)	0	(B)
1. <u></u>	Dactylis glome	erata		10	Υ	FACU	Preva	lence Index = B/A =	#DI\	V/0!	_
2. (Geum macrop	hyllum			Υ	FAC					
3. <u>\</u>	Vicia americar	na		2		FAC	Hydrop	hytic Vegetation In	dicators:		
4							-	1 - Rapid Test for		egetation	
5								2 - Dominance Te			
6							#####	3 - Prevalence Ind			
7								4 - Morphological			porting
8								data in Remarks o	•	,	
9								5 - Wetland Non-V			
								Problematic Hydro	phytic Vegeta	tion' (Expla	in)
11											
			Total Cover:	17			1				
. –	Noody Vine S							ors of hydric soil and ent, unless disturbed			
1 2.					-		•	•	or problemat		
<u>-</u> . –			Total Cover:	0	-	·	Hydrop	•			
	% Ra	re Ground in Herb S			otic Crust	0	Vegetar Presen		Yes	No X	
Rem	arks:	Croding in Field O		20,01 01 01	Cao Oradi		. 103611			<u>/ / </u>	
IZCIII	ains.										

SOIL								Sampling Po	int:	53
Profile Des	scription: (Describe	to the dep	th needed to do	cument t	he indicato	or or con	firm the absen	nce of indicators.)		
Depth	Matrix		Re	dox Feat			<u>-</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	1
0-4	10 YR 2/1	100					SL			
		· -						_		
		· -						_		
		· -						_		
		· -						_		
		· —— -						_		
		· —— -								
¹ Type: C=0	Concentration, D=Dep	letion, RM	Reduced Matrix,	CS=Cov	ered or Coa	ated San	d Grains. ² Loc	ation: PL=Pore Lin	ning, M=Matri	X.
Hydric Soi	I Indicators: (Applic	able to all	LRRs, unless ot	herwise	noted.)		Indicators for	or Problematic Hy	dric Soils ³ :	
Histos	sol (A1)		Sandy	Redox (S	S5)			2 cm Muck (A1	0)	
Histic	Epipedon (A2)		Strippe	d Matrix	(S6)			Red Parent Ma	iterial (TF2)	
Black	Histic (A3)		Loamy	Mucky M	lineral (F1)	(except	MLRA 1)	Other (Explain	in Remarks)	
Hydro	gen Sulfide (A4)		Loamy	Gleyed N	Matrix (F2)					
Deple	eted Below Dark Surface	ce (A11)	Deplete	ed Matrix	(F3)					
Thick	Dark Surface (A12)		Redox	Dark Sur	rface (F6)		³ Indicat	tors of hydrophytic	vegetation ar	nd
Sandy	y Muck Mineral (S2)		Deplete	ed Dark S	Surface (F7)		and hydrology must		
	y gleyed Matrix (S4)		Redox	Depressi	ions (F8)		unl	less disturbed or pr	oblematic.	
Restrictive	Layer (if present):									
Type: Ro	ck									
Depth (inch	nes):		4			Hy	dric Soil Pres	ent?	Yes	No X
Remarks: Are	ea underlain by basalt	flow								
HYDROLOG	Υ									
	ydrology Indicators:									
	dicators (any one indic		cient)					Secondary Indic	ators (2 or m	ore required)
	ce Water (A1)			Stained L	_eaves (B9)	(except	<u> </u>	Water-Stained	-	
High \	Water Table (A2)		MLR	A 1, 2, 4	A and 4B)	` •		— 4A and 4B)		` ' '
	ation (A3)			ust (B11)	,		_	Drainage Patte		
	r Marks (B1)				orates (B13))	_	Dry-Season W		2)
	nent Deposits (B2)				le Odor (C1		_	Saturation Visil	•	•
	Deposits (B3)				•	•	Roots (C3)	Geomorphic Po		3 , , ,
	Mat or Crust (B4)				duced Iron	-	· · · · <u> </u>	— . Shallow Aquita		
	Deposits (B5)		Recent	Iron Red	duction in P	owed Sc	oils (C6)	FAC-Neutral T		
	ce Soil Cracks (B6)				ssed Plants		` '	Raised Ant Mo	` '	RR A)
	ation Visible on Aerial	Imagery (E			n Remarks)		,	Frost-Heave H		
	sely Vegetated Concav				,		_	_		,
Field Obse			· · ·				ı			
	ater Present? Yes	;	No X Dept	h (inches	s):					
Water table	e Present? Yes	·		h (inches						
Saturation		·	No <u>X</u> Dept	h (inches	s):		Wetland Hyd	rology Present?	Yes	No <u>X</u>
•	apillary fringe) corded Data (stream g	augo moni	toring well periol	nhotoc n	rovious inc	nootions) if available:			
Pesoine Ker	orded Data (Stream 9	auye, mom	tornig well, aerial	ριισίσο, μ	nevious IIIS	PECHOUS	,, ii available.			
Remarks:										

Farm Fields and Lancaster Lake Data Forms

Plas Newydd Farm- Lanca	aster Lake S	tud Area	City/County:	Clark Coun	ıty			Sampling L	Date:	5/28/2014
Plas Newydd Farm, LLC				<u>-</u>		State: W	A			
3. Haddaway, T.Stout			Section	n, Township,	Range:	S1, T4N, I	R1W			
terrace, etc.): Floo	dplain		Local re	elief (concave	e, convex	, none): <u>no</u>	ne		Slope (%):	0-1%
Northwest Forests and Co	oast (LRR A)	Lat:	45.850967°	1		Long: <u>12</u>	2.774606	0	Datum	: WGS 84
Sauvie silt loam						NWI Classi	fication:	none		
gic conditions on the site	typical for tl	nis time of y	ear?	Yes X	<	No		(If no, explain	in Remarks	s)
, Soil, or H	Hydrology		significantly	disturbed?	Are "N	Iormal Circu	umstance	s" Present?	Yes X	_No
, Soil, or H	Hydrology		naturally pro	oblematic?	(If nee	ded, explai	n any ans	swers in Rema	arks.)	
INDINGS – Attach	site map s	howing s	sampling	point loca	ıtions, t	ransects	, impor	tant featur	es, etc.	
ion Present? Yes	X No		1.41.0							
Yes	X No				3	Yes X		No		
Present? Yes	X No		Within	a Welland:						
scientific names.)		% Cover	Species?	Status?			•			
					IIIal Ale	OBL, FAC	,vv, oi FA		4	_(A)
					Species	Across All	Strata:		4	_(B)
							•			
٦	Total Cover:	0			That Are	OBL, FAC	W, or FA	.C: <u>1</u>	00%	_(A/B)
					OBL spe	tal % Cover ecies species	of:	x1 = Mul	tiply by: 0	_ _ _
					FAC spe	ecies		x3 =	0	_
					FACU s	pecies		x4 =	0	_
7	Total Cover:	0			UPL spe	ecies		x5 =	0	_
						-			0	_(B)
					Preval	lence Index	= B/A = _	#DI\	//0!	_
mularia					Hydropl					
			Υ					-	egetation	
								_		
					#####					4:
										oorting
acea								•		
		10		<u> </u>						in)
						Problema	iic myurop	niylic vegelal	lio⊓ (⊏xpiai	111)
	Fotal Cover:	140								
	Total Cover.	140								
					Hydrani	hytic				
7	 Γotal Cover:	0			Vegetat					
			otic Crust	0	Present		,	Yes X	No	
Ground in Herb Stratum	0 %	cover or Br	Juc Grusi	0 1	LIGSGIII	. (163 /	140	
	Northwest Forests and Co Sauvie silt loam ogic conditions on the site , Soil, or h FINDINGS — Attach s ion Present? Yes Yes Present? Yes accea culatus mularia mens oides accea	B. Haddaway, T.Stout terrace, etc.): Floodplain Northwest Forests and Coast (LRR A) Sauvie silt loam ogic conditions on the site typical for the soil on Present? Yes X No Y	B. Haddaway, T.Stout terrace, etc.): Floodplain Northwest Forests and Coast (LRR A) Lat: Sauvie silt loam ogic conditions on the site typical for this time of y , Soil, or Hydrology, Soil, or Hydrology, Soil, or Hydrology FINDINGS — Attach site map showing site ion Present? Yes X No Yes X No Present? Yes X No Total Cover:	Absolute Section Present? Yes X No Secientific names.) Total Cover: 0 Total Cover: 0 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140 Total Cover: 140	Section, Township, Local relief (concave Northwest Forests and Coast (LRR A) Lat: 45.850967° Sauvie silt loam Section, Township, Local relief (concave Northwest Forests and Coast (LRR A) Lat: 45.850967° Sauvie silt loam Sauvie silt loam Section, Township, Local relief (concave Northwest Forests and Coast (LRR A) Lat: 45.850967° Yes 2 Soil	Section, Township, Range: Local relief (concave, convex Local relief (convex Section, Township, Range: S1, T4N, Iterrace, etc.): Floodplain Local relief (concave, convex, none): no Northwest Forests and Coast (LRR A) Lat: 45.850967* Long: 12 L	Section, Township, Range: S1, T4N, R1W	Section, Township, Range: \$1, TAN, R1W	Section, Township, Range: Section Section	

SOIL								Sampling Point:	2
Profile De	escription: (Describ	e to the de	oth needed to docu	ıment th	e indicat	or or co	onfirm the absence		
Depth	Matrix		-	lox Featu					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture	Remarks	
0-4	10 YR 4/2	80	10 YR 4/4	10	С	M	SILT LOAM	Remarks	
0-4	10 11(4/2		4/5BG	10	D	M	OILT LOAW	-	
4-9	10 YR 4/2	85	10 YR 4/4	5	C	M	SILT LOAM	-	
10	10 111 112		10 YR 4/4	5	C	PL	0121 207 1111	-	
			10 YR 6/1	5	D	<u></u>		-	
9-12	10 YR 5/2	75	7.5 YR 4/4	10	C	M	SCL		
<u> </u>			4/N	10	D	M			
	_		7.5 YR 4/4	5	C	PL			
12-16	7.5 YR 5/2	80	4/N	10	D	M	SCL		
	_		10 YR 6/1	5	D	М	_		
	_		7.5 YR 3/4	5	С	PL			
¹ Type: C=	-Concentration, D=De	epletion, RN	/I=Reduced Matrix, C	S=Cove			nd Grains. ² Location	on: PL=Pore Lining, M=Matrix.	
-	pil Indicators: (Appl	icable to a			•		Indicators for	Problematic Hydric Soils ³ :	
	osol (A1)			ledox (S5				2 cm Muck (A10)	
	c Epipedon (A2)			Matrix (S				Red Parent Material (TF2)	
	k Histic (A3)			-		-	ot MLRA 1)	Other (Explain in Remarks)	
	ogen Sulfide (A4)	: (444)		-	atrix (F2))			
	eted Below Dark Surf	ace (ATT)		d Matrix (3Indicator	s of hydrophytic vegetation and	
	k Dark Surface (A12) dy Muck Mineral (S1)			ark Surfa	urface (F	7)		f hydrology must be present,	
	dy gleyed Matrix (S4)			epressio		,		s disturbed or problematic.	
				epi essio	115 (1 0)	1	unies	s disturbed or problematic.	
	e Layer (if present):								
Type:	hoo):					١.	Uvdria Cail Dracan	t? Yes X No	
Depth (inc							Hydric Soil Presen	t? Yes <u>X</u> No	
Remarks:									
HYDROLOG									
	Hydrology Indicators								
	idicators (any one ind	icator is suf	•					Secondary Indicators (2 or more required	
	ace Water (A1)				eaves (B9			Water-Stained Leaves (B9) (MLRA 1, 2	,
	Water Table (A2)				and 4B))		4A and 4B)	
	ration (A3)		Salt Cru					Drainage Patterns (B10)	
	er Marks (B1)				ates (B13	•		Dry-Season Water Table (C2)	
	ment Deposits (B2)				Odor (C		——————————————————————————————————————	Saturation Visible on Aerial Imagery (CS)
	Deposits (B3)					-	ng Roots (C3)	Geomorphic Position (D2)	
Alga	I Mat or Crust (B4)				uced Iron			Shallow Aquitard (D3)	
1	Deposits (B5)			ion Kedi	uction in F		Soils (C6)	FAC-Neutral Test (D5)	
	and Call Ore else (DO)			Ct	I DI 1	- (D4) /*	/\ \	Raised Ant Mounds (D6) (LRR A)	
Surfa	ace Soil Cracks (B6)	al les · · ·			sed Plants				
Surfa	dation Visible on Aeria		(B7) Other (E		sed Plants Remarks			Frost-Heave Hummocks (D7)	
Surfa Inund Spar	dation Visible on Aeria sely Vegetated Conc		(B7) Other (E						
Surfa Inund Spar Field Obs	dation Visible on Aeria sely Vegetated Conca servations:	ave Surface	(B7) Other (E	xplain in	Remarks				
Surfa Inund Spar Field Obs Surface W	dation Visible on Aeria rsely Vegetated Conca servations: Vater Present? Ye		(B7) Other (E		Remarks				

Remarks:

(includes capillary fringe)

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

Project/Site: Plas Newyd	d Farm- Lancaster Lake S	Stud Area	City/County:	Clark Cou	nty			Sampling	Date:	5/28/2014
Applicant/Owner: Plas Newyd	d Farm, LLC					State:	WA	Sampling	Point:	2
Investigator(s): B. Haddawa	ay, T.Stout		Section	n, Township	, Range:	S1, T4N	N, R1W			
Landform (hillslope, terrace, etc.	:.): Floodplain		_			-	none		_Slope (%):	0-1%
Subregion (LRR): Northwest F	orests and Coast (LRR A	Lat:	45.850967°)		Long:	122.774606	S°	_ Datum	: WGS 84
·	vie silt loam						ssification:			
Are climatic / hydrologic condition				_		_		(If no, explain		
	l, or Hydrology					lormal Ci	ircumstance	es" Present?	Yes X	No
Are Vegetation, Soi	l, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	lain any an	swers in Rem	narks.)	
SUMMARY OF FINDINGS	S – Attach site map s	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featui	res, etc.	
Hydrophytic Vegetation Present	:? Yes X No)								
Hydric Soil Present?)		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology Present?			WILLIIII	a wellanu:		_				
Remarks:			<u> </u>							
VEGETATION										
		Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	et:		
Tree Stratum (Use scientific n	ames.)	% Cover	Species?	Status?			nant Specie			
1.	,				That Are	OBL, F	ACW, or FA	IC:	2	(A)
2.					Total Nu	ımber of	Dominant			
3.					Species	Across A	All Strata:		2	_(B)
4					Percent	of Domir	nant Specie	s		
	Total Cover:	0			That Are	e OBL, F	ACW, or FA	۱C:	100%	_(A/B)
Shrub Stratum 1.						nce Inde	ex Workshe		Itiply by:	_
2					OBL spe	ecies		x1 =	0	_
3					FACW s	species		x2 =	0	_
4					FAC spe	ecies		x3 =	0	
5						_		x4 =	0	_
	Total Cover:	0			UPL spe	-		x5 =	0	_
Herb Stratum				E40		_	0		0	_(B)
1. Festuca arundinacea		40		FAC	Preva	lence Ind	lex = B/A =	#DI	V/0!	_
2. Holcus lanatus		25	Y	FAC						
3. <u>Dactylis glomerata</u>		15		FACU FAC	Hydrop		getation Inc			
4. Trifolium repens				FAC		•		Hydrophytic V	egetation	
5. Lolium perenne		5		FAC	X X		ninance Tes valence Inde			
Agrostis capillaris Daucus carota		0.01		FACU	#####				Drovido oun	oorting
Daucus carota Hypochaeris radicata		0.01		FACU			_	daptation1 (F on a separa		porting
9. Anthoxanthum odoratum		0.01		FACU				ascular Plant		
10	-	0.01						ohytic Vegeta		in)
10. 11.	-			. ———		1 TODICII	natio riyuro	onytic vegeta	шоп (шхріа	,
111	Total Cover:	125 03		-						
Woody Vine Stratum 1.								wetland hydror problema		
2.					Hydrop	hytic				
	Total Cover:	0	· <u> </u>		Vegetat	-				
% Bare Ground in	Herb Stratum0 %	Cover of Bi	otic Crust	0	Present			Yes X	No	
Remarks:					1					

SOIL									ng Point:	
Profile Des	scription: (Desc	cribe to the de	pth needed	to document th	ne indicato	or or co	nfirm the abse	nce of indica	tors.)	
Depth	Mat	rix		Redox Feat			_			
(inches)	Color (mois	st) %	Color (m	ioist) %	Type ¹	Loc ²	Texture		Remarks	3
0-3	10 YR 3/2	80	10 YR 3/6	5	С	M	SCL			
			10 YR 5/6	10	С	M				
			10 YR 6/1	5	<u>D</u>	M	_			
3-10	10 YR 4/2	87	10 YR 4/6	10	<u>C</u>	M	SCL			
			7.5 YR 4/6		<u>C</u>	<u>PL</u>	_			
10-16	10 YR 5/2	90	7.5 YR 5/6 7.5 YR 5/8		<u>C</u>	M M	SCL	<u> </u>		
17	Daniel Daniel D	-Daulatian DA				-11-0	21 - 21 - 1	ti DID-	- Lining M. Madri	
						aled San			ore Lining, M=Matri	x.
		pplicable to a		less otherwise r			Indicators 1		tic Hydric Soils ³ :	
	sol (A1)			Sandy Redox (S			_	2 cm Mu		
	Epipedon (A2)			Stripped Matrix ((- MI DA 4\		ent Material (TF2)	
	Histic (A3)			Loamy Mucky M		-	INILKA I)	Other (E	xplain in Remarks)	
	gen Sulfide (A4)			Loamy Gleyed M						
	ted Below Dark			Depleted Matrix			31:	l	-14:	1
	Dark Surface (A			Redox Dark Surf				• .	ohytic vegetation ar	na
	/ Muck Mineral (•		Depleted Dark S	•)			y must be present,	
	gleyed Matrix (S Layer (if prese	-		Redox Depression	ons (F8)		ur	iless disturbed	d or problematic.	
	, ,	,								
Type: Depth (inch	es).					Н	ydric Soil Pres	ent?	Yes X	No
emarks:										
-	Y ydrology Indica icators (any one		fficient)					Secondary	y Indicators (2 or m	ore required)
	ce Water (A1)			Water-Stained L	eaves (B9) (excep	t .		ained Leaves (B9)	
	Water Table (A2))		MLRA 1, 2, 4			_		nd 4B)	, , ,
	ation (A3)			Salt Crust (B11)	,		_		Patterns (B10)	
	Marks (B1)			Aquatic Inverteb	rates (B13)	_		son Water Table (C	(2)
	nent Deposits (B	2)		Hydrogen Sulfide			_		n Visible on Aerial	
	eposits (B3)	•		Oxidized Rhizos			g Roots (C3)	Geomorp	ohic Position (D2)	
	Mat or Crust (B4)		Presence of Rec		-	` ' _		Aquitard (D3)	
	eposits (B5)	,		Recent Iron Red	uction in P	lowed S	oils (C6)		utral Test (D5)	
Surfac	ce Soil Cracks (E	36)		Stunted or Stres	sed Plants	(D1) (LI	RR A)		ant Mounds (D6) (L	RR A)
 Inunda	ation Visible on A	Aerial Imagery	(B7)	Other (Explain in	Remarks)	_	Frost-He	ave Hummocks (D	7)
Spars	ely Vegetated Co	oncave Surfac	e (B8)				_			
Field Obse	rvations:									
	ater Present?	Yes	No X	Depth (inches)):					
Water table		Yes X	No	Depth (inches)		10	l			
Saturation F		Yes X	No	Depth (inches)):	9	Wetland Hyd	drology Pres	ent? Yes X	No
	apillary fringe) orded Data (stre	am dalide mo	nitoring well	, aerial photos, p	revious ins	nections) if available:			
COUNDO INCO	טומ ואנט בייטיים	am gauge, mo	ornig well	, acriai priotos, p		, 200110113	o,, ii avaliable.			
Remarks:									-	

Project/Site: Plas Newydd Farm- Lancaster Lake	Stud Area	City/County:	Clark Cour	nty	Sampling Date:	5/28/20
pplicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling Point:	
vestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S1, T4N, R1W		
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concav	e, convex, none): none	Slope ((%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR A	<u>\)</u> Lat:	45.850967°	,	Long: 122.77460	<u>6°</u> Da	tum: WGS 8
oil Map Unit Name: Sauvie silt loam				NWI Classification:	none	
re climatic / hydrologic conditions on the site typical for	this time of y	year?	Yes 2	X No	(If no, explain in Rem	arks)
re Vegetation, Soil, or Hydrology				Are "Normal Circumstance	es" Present? Yes X	No
re Vegetation, Soil, or Hydrology		naturally pro	oblematic?	(If needed, explain any an	iswers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, transects, impo	rtant features, etc) .
ydrophytic Vegetation Present? Yes N	 o X					
lydric Soil Present? Yes X N			ampled Area a Wetland?		No X	
Vetland Hydrology Present? Yes N		WILLIIII	a wellanu:		<u> </u>	
Remarks: Plot is located in levee protected floodplain of		nd Columbia	Divore in or	historically tilled and seedes	I pacture (within 3 year	re) Due to
EGETATION						
	Absolute	Dominant		Dominance Test workshee		
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Specie		
			<u> </u>	That Are OBL, FACW, or FA	AC. 1	(A)
·				Total Number of Dominant		
				Species Across All Strata:	2	(B)
·				Percent of Dominant Specie		
Total Cover	:0			That Are OBL, FACW, or FA	AC: <u>50%</u>	(A/B)
Shrub Stratum			ļ	Prevalence Index Worksh	eet:	
				Total % Cover of:	Multiply by:	
· ·		-	. ———	OBL species	x1 = 0	
· ,	·				x2 = 0	
·				FAC species	x3 = 0	
·			. ——	FACU species	x4 = 0	
Total Cover	: 0	-	• ——	UPL species	x5 = 0	
lerb Stratum				Column Totals: 0	(A) 0	(B)
. Festuca arundinacea	20		FAC	Prevalence Index = B/A =	#DIV/0!	``
				1 TOVAIOTIOO THAOX BIT	#DIV/U:	
. Holcus lanatus	30	Υ	FAC	Trevalence index Birt	#51470:	
		Y Y	FACU	Hydrophytic Vegetation In		
Dactylis glomerata				Hydrophytic Vegetation In		n
Dactylis glomerata Trifolium pratense	40		FACU	Hydrophytic Vegetation In	ndicators:	n
Dactylis glomerata Trifolium pratense Lolium perenne	40 0.01		FACU FACU	Hydrophytic Vegetation In 1 - Rapid Test for	ndicators: Hydrophytic Vegetation st is >50%	n
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris	0.01 10		FACU FACU FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Test ##### 3 - Prevalence Ind	ndicators: Hydrophytic Vegetation st is >50%	
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense	40 0.01 10 20		FACU FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Tes ##### 3 - Prevalence Ind 4 - Morphological A	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0 ¹	supporting
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata	40 0.01 10 20 0.01		FACU FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Tes ##### 3 - Prevalence Ind 4 - Morphological / data in Remarks o 5 - Wetland Non-V	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0 ¹ Adaptation1 (Provide sor on a separate sheet) //ascular Plants ¹	supporting
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum	40 0.01 10 20 0.01 0.01		FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Tes ##### 3 - Prevalence Ind 4 - Morphological / data in Remarks o 5 - Wetland Non-V	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0 ¹ Adaptation1 (Provide so	supporting
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum 1.	40 0.01 10 20 0.01 0.01 5		FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Tes ##### 3 - Prevalence Ind 4 - Morphological / data in Remarks o 5 - Wetland Non-V	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0 ¹ Adaptation1 (Provide sor on a separate sheet) //ascular Plants ¹	supporting
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum Total Cover	40 0.01 10 20 0.01 0.01 5		FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Test ##### 3 - Prevalence Ind 4 - Morphological A data in Remarks o 5 - Wetland Non-V Problematic Hydro	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0 ¹ Adaptation1 (Provide sor on a separate sheet) /ascular Plants ¹ ophytic Vegetation ¹ (Ex	supporting) xplain)
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum Total Cover	40 0.01 10 20 0.01 0.01 5		FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Test ##### 3 - Prevalence Ind 4 - Morphological Adata in Remarks of 5 - Wetland Non-Verblematic Hydro	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0¹ Adaptation1 (Provide sor on a separate sheet) /ascular Plants¹ phytic Vegetation¹ (Ex	supporting) xplain)
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum Total Cover	40 0.01 10 20 0.01 0.01 5		FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Test ##### 3 - Prevalence Ind 4 - Morphological A data in Remarks o 5 - Wetland Non-V Problematic Hydro	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0¹ Adaptation1 (Provide sor on a separate sheet) /ascular Plants¹ phytic Vegetation¹ (Ex	supporting) xplain)
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum Total Cover	40 0.01 10 20 0.01 0.01 5	Y	FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Test ##### 3 - Prevalence Ind 4 - Morphological Adata in Remarks of 5 - Wetland Non-Vegetation Problematic Hydro 1 Indicators of hydric soil and be present, unless disturbed	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0¹ Adaptation1 (Provide sor on a separate sheet) /ascular Plants¹ phytic Vegetation¹ (Ex	supporting) xplain)
Dactylis glomerata Trifolium pratense Lolium perenne Agrostis capillaris Cirsium arvense Hypochaeris radicata Anthoxanthum odoratum Total Cover	40 0.01 10 20 0.01 0.01 5 125.03	Y	FACU FAC FAC FAC FAC FAC	Hydrophytic Vegetation In 1 - Rapid Test for 2 - Dominance Tes ##### 3 - Prevalence Ind 4 - Morphological / data in Remarks o 5 - Wetland Non-V Problematic Hydro 1 Indicators of hydric soil and be present, unless disturbed	ndicators: Hydrophytic Vegetation st is >50% lex is ≤3.0¹ Adaptation1 (Provide sor on a separate sheet) /ascular Plants¹ phytic Vegetation¹ (Ex	supporting) (plain) ust

SOIL								Sampling Point		3
Profile Des	scription: (Describe	to the de	pth needed to do	cument th	e indicat	or or co	onfirm the absence	of indicators.)		
Depth	Matrix		R	edox Featu	res					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-7	10 YR 3/2	100					LOAM			
7-11	10 YR 3/2	95	10 YR 4/2	5	D	М	LOAM			
11-18	10 YR 4/2	85	10 YR 4/4	10	С	М	SILT LOAM			
			7.5 YR 4/4	5	С	M				
			-					-		
1Type: C=0	Concentration, D=Dep	letion PN	4-Deduced Matrix	CS=Cove	red or Co	atod Sar	nd Grains ² Location	on: DI –Dore Linin	a M-Matrix	
туре. С-С	Soncentration, D-Dep	iletion, ixi	vi–Reduced Matrix,	C3-C0V6	red or Co	aleu Sai	nd Grains. Location	on. FL-Fore Limit	g, ivi–iviatrix.	
Hydric Soil	I Indicators: (Applic	able to a	II LRRs, unless of	herwise n	oted.)		Indicators for	Problematic Hydr	ric Soils³:	
Histos	sol (A1)		Sandy	Redox (S5	5)			2 cm Muck (A10)		
Histic	Epipedon (A2)			ed Matrix (S				Red Parent Mate	` '	
	Histic (A3)			Mucky Mir	, ,	•	t MLRA 1)	Other (Explain in	Remarks)	
	gen Sulfide (A4)			Gleyed Ma	, ,)				
	ted Below Dark Surfac	ce (A11)		ed Matrix (3			
	Dark Surface (A12)			Dark Surfa				s of hydrophytic ve	-	
	/ Muck Mineral (S1)			ed Dark Su	,	')		d hydrology must be		
	gleyed Matrix (S4)		Redox	Depressio	ns (F8)	-	unies	s disturbed or prob	nematic.	
	Layer (if present):									
Type:	200/:						lydric Soil Present	12 Va	• V	No
Depth (inch Remarks:	<u> </u>						Tydric Soli Fresein	ir re	s <u>X</u>	No
HYDROLOG	Υ									
Wetland Hy	ydrology Indicators:									
	licators (any one indic	ator is su	fficient)					Secondary Indicate	ors (2 or more	required)
	ce Water (A1)			-Stained Le	•			Water-Stained Le	eaves (B9) (ML	_RA 1, 2,
	Nater Table (A2)			RA 1, 2, 4A	and 4B)			4A and 4B)		
	ation (A3)			rust (B11)				Drainage Patterns	, ,	
	Marks (B1)			c Invertebr				Dry-Season Water		
	nent Deposits (B2)			gen Sulfide				Saturation Visible		gery (C9)
	Deposits (B3)					_	g Roots (C3)	Geomorphic Posi	, ,	
	Mat or Crust (B4)			nce of Red				Shallow Aquitard		
	eposits (B5)			t Iron Redu				FAC-Neutral Test		A .\
	ce Soil Cracks (B6)	lmagar.		d or Stress			.RR A)	Raised Ant Moun		A)
	ation Visible on Aerial			(Explain in	Remarks)		Frost-Heave Hum	imocks (D7)	
	ely Vegetated Concav	re Suriac	e (DO)				T			
Field Obse Surface Wa	ervations: ater Present? Yes	:	No X Dep	th (inches):						
Water table				th (inches):						
Saturation F		3	No X Dep	th (inches):			Wetland Hydro	logy Present?	Yes	No X
`	apillary fringe)	augo mo	nitoring well aerial	nhotoc pr	ovious in	nootion	s) if available:			
Describe KeC	corded Data (stream g	auge, III0	intoring well, aerial	ρποιοδ, βΓ	evious III	sp c cii0i1	o), ii avallable.			
Remarks:										

State: WA Sampling Point Section, Township, Range: \$1,14N, R18 Sampling Point Section, Township, Range: \$1,14N, R18 Sampling Point Section, Township, Range: \$1,14N, R18 Sampling Point Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, Township, Range: \$1,14N, R18 Section, R18	Project/Site: Plas Newydd Farm- Lancaster Lake	Stud Area	City/County:	Clark Cour	nty	Sampling Da	ate: 5/28/201
sandorm fillalope, terrace, etc.): Floodplain Local relief (concave, convex, none): none Slope (%); 0-1% subtrapen (LRR) Lat: 45.850967* Long: 122.745095* Datum: WGS 8 foll Map Unit Name: Sauvie slift loam NWI Classification: none NWI Classificatio	Applicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling Po	oint:
Design Christian Everests and Coast (LRR A) Lat: 45.850967* Long: 122.774600* Datum: WGS 8 of Map Unit Name: Sauvise till tolam Notification: none Columbia Columbia	nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: <u>S1, T4N, R1W</u>		
Section Communication Co	andform (hillslope, terrace, etc.): Floodplain		Local re	elief (concav	e, convex, none): none		Slope (%): <u>0-1%</u>
re climatic / hydrologic conditions on the site bytical for this time of year? Yes X No (if no. explain in Remarks) re Vegetation (is oil	ubregion (LRR): Northwest Forests and Coast (LRR)	A) Lat:	45.850967°)	Long: 122.7746	306°	Datum: WGS 84
re Vegetation Soil or Hydrology naturally problematic? Are "Normal Circumsances" Present? Yes X No naturally problematic? (If needed, explain any answers in Remarks.) WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. WUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Words — If the Sampled Area within a Wetland? Yes	oil Map Unit Name: Sauvie silt loam				NWI Classification	n: none	
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Sydrophylic Vegetation Present? Yes No.X Is the Sampled Area within a Wetland? Yes No.X Y	are climatic / hydrologic conditions on the site typical for	this time of	year?	Yes 2	X No	(If no, explain in	n Remarks)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. hydrophytic Vegetation Present? Yes	re Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstar	nces" Present?	res X No
lydrophylic Vegetation Present? Yes X No Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X within a Wetland? Yes No X No X within a Wetland? Yes No X No X within a Wetland Hydrology Present? Yes No X No X within a Wetland Present Presen							
Vest No Vest	SUMMARY OF FINDINGS – Attach site map	showing	sampling	point loca	ations, transects, imp	ortant feature	s, etc.
vide Sol Present? Yes No No X within a Wetlandr? Yes No X within a Wetlandr Yes Selected on the Storage of Pacedor And Yes on Selected table staturation in an instruction of North Yes Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Held Selected in Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Yes North Ye	lydrophytic Vegetation Present? YesN	No_X	la tha Si	ammind Ava	_		
Vetland Hydrology Present? Yes No X	lydric Soil Present? Yes X	No			a Yes	No X	
nown disturbance of soil and vegetation, the delineation of wetland boundaries is largely based on observed direct hydrology (water table/saturation) and obioinization by non-seeded species. Plot does not support hydrophytic plants or feature observable soil saturation in 16° of soil surface. Plot does not ppear to recieve sufficient soil saturation to support wetland conditions, comparing elevation to river stage as describe in report Methods section. ###################################	Vetland Hydrology Present? YesN	No X					
Absolute %Cover Species? Status? Indicator Status? Species That Are OBL, FACW, or FAC: 1 (A) Total Cover: 0 Total Cover: 0 Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status? Total Cover: 0 Status Status Species Cover SAII Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Percent of Dominant Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC: 104 (B) FAC Species That Are OBL, FACW, or FAC:	nown disturbance of soil and vegetation, the delineatio olonization by non-seeded species. Plot does not supp	n of wetland ort hydrophyl	boundaries i tic plants or f	s largely bas feature obse	sed on observed direct hydi rvable soil saturation within	rology (water table n 16" of soil surfac	e/saturation) and e. Plot does not
Number of Dominant Species That Are OBL, FACW, or FAC: 1	EGETATION						
That Are OBL, FACW, or FAC: 1							
Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species X1 = 0 FACW species X2 = 0 FACU species X3 = 0 FACU species X3 = 0 FACU species X4 = 0 UPL species X5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index EB/A = #DIV/0! Partivialis 10 FAC Dactylis glomerata 20 Y FACU Plantago lanceolata 15 Y FACU Plantago lanceolata 15 Y FACU Alopecurus pratensis 5 FACU Alopecurus pratensis 5 FAC Alopecurus pratensis 10 FAC Mytophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Alopecurus pratensis 10 FAC Hydrophytic Vegetation (Provide supporting data in Remarks or on a separate sheet) Total Cover: 105 Woody Vine Stratum Total Cover: 105 Woody Vine Stratum Total Cover: 0 Hydrophytic Vegetation or separate sheet) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation	ree Stratum (Use scientific names.)	% Cover	Species?	Status?			
Species Across All Strata: 4 (B)					That Are OBL, FACW, or	FAC	1 (A)
Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)	·						
Total Cover: 0 That Are OBL, FACW, or FAC: 25% (A/B)					Species Across Ali Strata:	·	4 (B)
Total % Cover of: Multiply by:		er: 0			•		5% (A/B)
FAC species X3 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X4 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X4 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X3 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X5 = 0 FACU species X	·				Total % Cover of: OBL species	x1 = Multip	0
Total Cover: 0					· -		
Total Cover: 0							
Serb Stratum Column Totals: 0					·		
Festuca arundinacea 25 Y FAC Prevalence Index = B/A = #DIV/0! Poa trivialis 10 FAC Dactylis glomerata 20 Y FACU Hydrophytic Vegetation Indicators: Trifolium pratense 5 FACU 1 - Rapid Test for Hydrophytic Vegetation Plantago lanceolata 15 Y FACU 2 - Dominance Test is >50% Hypochaeris radicata 15 Y FACU ##### 3 - Prevalence Index is ≤3.0¹ Alopecurus pratensis 5 FAC 4 - Morphological Adaptation1 (Provide supporting data in Remarks or on a separate sheet) Trifolium repens 10 FAC data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 Total Cover: 105 Woody Vine Stratum ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Vegetation		er. <u> </u>					
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Total Cover: 0 Hydrophytic Vegetation		er: 105			¹ Indicators of hydric soil a	nd wetland hydrol	ogy must
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Total Cover: 0 Vegetation					Hydrophytic		
	Total Cove				vegetation		

FIUITIE DES	scription: (Describ	e to the ac	:Din needed		יונ נווי	e muicai		nfir	III lile abse	ince or in			
Depth			.,	Redox F	Catu	roc	01 01 00	mir					
•	Matrix	0/	Color (no				Loc ²	_	Tavelue			Damarka	
(inches) 0-2	Color (moist) 10 YR 3/2		Color (m	noist) %	0	Type ¹	LOC		Texture SILT LOAM			Remarks	
2-7	10 YR 4/2	80	7.5 YR 4/4		20	С	M		SILT LOAN				
7-12	10 YR 4/2	75	5 YR 3/4	<u>'</u>	15	C	M		SILT LOAN				
· ·-	10 111 112		5 YR 3/4		5	C	PL		0.21 207 417	<u> </u>			
			10 YR 5/1		5	D	<u></u>						
12-16	10 YR 5/1	65	5 YR 3/4		25	С	M		SILT LOAM				
			5 YR 3/4		5	С	PL						
			7. 5 YUR 3	3/4	5	С	М						
Type: C=0	Concentration, D=D	epletion, RI	√=Reduced	Matrix, CS=C	Cover	red or Co	ated Sai	nd G	Grains. ² Lo	cation: P	L=Pore Linir	ng, M=Matrix.	
Hydric Soi	I Indicators: (App	licable to a	II I DDe un	loss othorwin	so n	otod)			Indicators	for Probl	ematic Hyd	Iric Soile ³ :	
	sol (A1)	ilcable to a		Sandy Redox					indicators		n Muck (A10		
	Epipedon (A2)			Stripped Mat					=		Parent Mate		
	Histic (A3)			Loamy Muck			(excen	ιм	- RA 1)		er (Explain ir		
	gen Sulfide (A4)			Loamy Gleye	-						, (Explain ii	i i tomanto,	
	ted Below Dark Sur	face (A11)		Depleted Ma		, ,							
	Dark Surface (A12)			Redox Dark					³ Indica	ators of h	ydrophytic v	egetation and	
	/ Muck Mineral (S1)			Depleted Dar		, ,	')				ology must b	_	
	gleyed Matrix (S4)			Redox Depre			,			•	urbed or pro	•	
Restrictive	Layer (if present)	:		•		. ,					•		
Type:													
	ies):						F	lydr	ric Soil Pre	sent?	Y	es X	No
Depth (inch	nes):						F	lydr	ric Soil Pre	sent?	Ye	es X	No
Depth (inch							F	lydr	ric Soil Pre	sent?	Y	es <u>X</u>	No
Depth (inchemarks:	Y						ŀ	lydr	ric Soil Pre	sent?	Yo	es <u>X</u>	No
Depth (inchemarks: 'DROLOG' Wetland H	Y ydrology Indicator		fficient)				F	lydr	ric Soil Pre				
Depth (inchemarks: 'DROLOG' Wetland Hearth Primary Independent	Y ydrology Indicator licators (any one inc		fficient)	Water-Staine	ed l e	eaves (B9			ric Soil Pre	Seco	ndary Indica	tors (2 or mor	e required
Depth (inch marks: "DROLOG" Wetland Hy Primary Ind Surface	Y ydrology Indicator licators (any one ind ce Water (A1)		fficient)	Water-Staine) (excep		ric Soil Pre	<u>Seco</u> Wate	ndary Indica er-Stained L		e requirec
OPEPTH (inch marks: "OROLOG" Wetland Hy Primary Ind Surface High V	ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2)			MLRA 1, 2	2, 4A) (excep		ric Soil Pre	Secor Wate	ndary Indica er-Stained L A and 4B)	tors (2 or mor eaves (B9) (N	e requirec
Depth (inch marks: DROLOG' Wetland Hy Primary Ind Surfac High V	ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2) ation (A3)		_	MLRA 1, 2 Salt Crust (B	2, 4A (11)	and 4B)) (excep		ric Soil Pre	Secor Wate 4 Drair	ndary Indica er-Stained L A and 4B) nage Patterr	tors (2 or mor eaves (B9) (N ns (B10)	e required
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CDROLOG Wetland High V Surface High V Satura Water Sedim Drift D	ydrology Indicator dicators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		<u></u>	MLRA 1, 2 Salt Crust (B Aquatic Inver	2, 4A 11) rtebra ulfide zosp	and 4B) ates (B13 Odor (C) (except)	ot		Secor Wate 4 Draii Dry- Satu Geo	ndary Indica er-Stained L A and 4B) nage Patterr Season Wa	tors (2 or more eaves (B9) (N ns (B10) ter Table (C2) le on Aerial Im sition (D2)	e required
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YDROLOGY Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac Inunda Spars Field Obse Surface Wa Water table	ydrology Indicator licators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerely Vegetated Concervations: ater Present?	ial Imagery cave Surfac	(B7) e (B8) No X No X	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi: Presence of Recent Iron F Stunted or St Other (Explai	2, 4A 11) rtebra ulfide zosp Redu Redu tress in in hes):	and 4B) ates (B13 Odor (C oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed S (D1) (L	g Rosoils	oots (C3)	Secor Wate 4 Draii Dry- Satu Geo Shal FAC Rais Fros	ndary Indica er-Stained L A and 4B) nage Patterr Season Wai ration Visibl morphic Pos low Aquitard -Neutral Tes ed Ant Mou t-Heave Hui	tors (2 or mor leaves (B9) (Notes and the content of the content o	e required ILRA 1, 2 agery (CS
Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac Inunda Spars Field Obse Surface Water table Saturation I	ydrology Indicator licators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerely Vegetated Concervations: ater Present?	ial Imagery cave Surfac	(B7) e (B8)	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi: Presence of Recent Iron F Stunted or St Other (Explai	2, 4A 11) rtebra ulfide zosp Redu Redu tress in in hes):	and 4B) ates (B13 Odor (C oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed S (D1) (L	g Rosoils	oots (C3)	Secor Wate 4 Draii Dry- Satu Geo Shal FAC Rais Fros	ndary Indica er-Stained L A and 4B) nage Patterr Season Wai ration Visibl morphic Pos low Aquitard -Neutral Tes ed Ant Mou t-Heave Hui	tors (2 or more eaves (B9) (Normal ns (B10) ter Table (C2) le on Aerial Im- sition (D2) d (D3) st (D5) nds (D6) (LRF	e required ILRA 1, 2 agery (CS
Primary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Inunda Spars Field Obse Surface Water table Saturation I (includes ca	ydrology Indicator licators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) Ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerely Vegetated Concervations: ater Present? Present? Y	ial Imagery cave Surfac res es	(B7) e (B8) No X No X No X	MLRA 1, 2 Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi: Presence of Recent Iron F Stunted or St Other (Explai	rtebra at 11) rtebra zosp Redu Redu tress in in hes): hes):	and 4B) ates (B13 Odor (Croheres alcouced Iron action in Freed Plants Remarks	i) (exception) (ex	g Ro	oots (C3)	Secor Wate 4 Draii Dry- Satu Geo Shal FAC Rais Fros	ndary Indica er-Stained L A and 4B) nage Patterr Season Wai ration Visibl morphic Pos low Aquitard -Neutral Tes ed Ant Mou t-Heave Hui	tors (2 or mor leaves (B9) (Notes and the content of the content o	e required ILRA 1, 2 agery (CS

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty			Sampling	g Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State:	WA	Sampling	g Point:	5
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T41	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none):	none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A	<u>)</u> Lat:	45.850967°	l .		Long:	122.77460	6°	Datum:	WGS 84
Soil Map Unit Nam	e: Sauvie silt lo	am					NWI Cla	ssification:	none		
Are climatic / hydro	logic conditions on the	ne site typical for t	this time of y	/ear?	Yes 2		-		- '	ain in Remarks	
Are Vegetation	, Soil			significantly		Are "N	lormal C	ircumstanc	es" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	olain any an	swers in Re	marks.)	
SUMMARY OF	FINDINGS - Att	ach site map	showing	sampling	point loca	ations, t	transec	ts, impo	rtant featı	ures, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No)								
Hydric Soil Present	1?	Yes X No			ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology	Present?	Yes X No		Within	ı wenana:		-				
Remarks:											
VEGETATION			Absolute	Dominant	Indicator	Domina	ınce Tes	t workshe			
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?			nant Speci			
1.	oo oolonimo namoo.)					That Are	e OBL, F	ACW, or F	AC:	2	(A)
2.						Total Nu	ımber of	Dominant	-		_(, ,)
3.		_		-	. ——			All Strata:		2	(B)
4.		_		-	. ——	Percent	of Domi	nant Specie			_ ` '
		Total Cover:	. 0					ACW, or F		100%	(A/B)
Shrub Stratum 1. 2. 3. 4. 5. Herb Stratum 1. Festuca arund		Total Covers	60		FAC	Tot OBL spe FACW s FAC spe FACU s UPL spe Column	tal % Corecies species ecies pecies ecies Totals:	ver of: 0 dex = B/A =	x1 = x2 = x3 = x4 = x5 = (A)	0 0 0 0 0 0 0	- - - - - (B)
2. Holcus lanatus	1		45	Y	FAC						
3. Juncus tenuis			3		FAC	Hydrop	•	getation In			
4. Ranunculus re			5		FAC		•		Hydrophytic	Vegetation	
5. <u>Lysimachia nu</u>			5		FACW	<u> </u>		ninance Te			
6. <u>Persicaria mad</u>	eulosa		3		FACW	#####			ex is ≤3.0 ¹	(5	
7								-		(Provide supp	orting
•									r on a separ		
									/ascular Plar		- \
					. ——		Probler	natic Hydro	priyuc vege	tation ¹ (Explair	1)
11		Total Cover:	121								
Woody Vine Si	tratum	Total Cover.				1Indicate	ors of hvo	dric soil and	d wetland hv	drology must	
1.									d or problem		
2.						Hydrop	hvtic				
		Total Cover:	0			Vegetat	•				
% Baı	re Ground in Herb St	ratum <u>0</u> %	Cover of Bi	otic Crust	0	Present			Yes X	No	
Remarks:											

		iha ta tha da			ne indicat			ance of indicat		
	cription: (Descr		eptn neede			or or co	nfirm the abse	crice or maidat	tors.)	
Depth	Matri			Redox Feat		2	_			
(inches)	Color (moist)		Color (r		Type ¹	Loc ²	Texture	<u> </u>	Remarks	
0-5	10 YR 5/2		5 YR 4/6			PL	SCL			
			5 YR 5/6		<u>C</u>	<u>M</u>				
<u> </u>	40)/D 5/0		5/N		<u>D</u>	M				
5-16	10YR 5/2	45	5 YR 4/6	15	<u>C</u>	M	SCL			
			5 YR 5/6 5/N	<u>30</u> 10		M				
			0							
Type: C=C	Concentration, D=	Depletion, RI	M=Reduced	d Matrix, CS=Cove	ered or Co	ated Sar	d Grains. ² Lo	ocation: PL=Po	re Lining, M=Matrix.	
Hydric Soil	Indicators: (Ap	plicable to a	II LRRs, ur	nless otherwise i	noted.)		Indicators	for Problemat	tic Hydric Soils ³ :	
Histos	ol (A1)	-		Sandy Redox (S	5)			2 cm Muc	ck (A10)	
Histic	Epipedon (A2)			Stripped Matrix (S6)		•	Red Pare	ent Material (TF2)	
Black	Histic (A3)			Loamy Mucky M	ineral (F1)	(except	MLRA 1)	Other (Ex	plain in Remarks)	
— Hydrog	gen Sulfide (A4)			Loamy Gleyed M	latrix (F2))	•			
Deplet	ed Below Dark S	urface (A11)	X	Depleted Matrix	(F3)					
Thick I	Dark Surface (A1	2)		Redox Dark Sur	face (F6)		³ Indic	ators of hydrop	hytic vegetation and	
Sandy	Muck Mineral (S	1)		Depleted Dark S	urface (F7	7)	we	tland hydrology	must be present,	
Sandy	gleyed Matrix (S4	4)		Redox Depressi	ons (F8)		u	nless disturbed	or problematic.	
Restrictive	Layer (if presen	t):								
I vne:										
Depth (inch	es):					н	ydric Soil Pre	esent?	Yes X	No
Depth (inch	es):					н	ydric Soil Pre	esent?	Yes X	No
Depth (inchoremarks:	1					Н	ydric Soil Pre	esent?	Yes X	No
Depth (incher emarks: YDROLOG) Wetland Hy	/ /drology Indicate					н	ydric Soil Pre			
Depth (inchormarks: **TOROLOGY Wetland Hy Primary Indi	/ /drology Indicate icators (any one in		fficient)					Secondary	r Indicators (2 or mor	e required
Depth (incher emarks: 'DROLOG' Wetland Hy Primary Indi Surface	/ /drology Indicate icators (any one in		fficient)	Water-Stained L	•) (excep		Secondary Water-Sta	Indicators (2 or mor ained Leaves (B9) (N	e required
Depth (incher emarks: DROLOG) Wetland Hy Primary Indi Surfact X High V	/ /drology Indicate icators (any one in the Water (A1) Vater Table (A2)		fficient)	MLRA 1, 2, 4	•) (excep		Secondary Water-Sta	Indicators (2 or mor ained Leaves (B9) (N	e required
Primary Indi Surfac X High V Satura	rdrology Indicators (any one interest (A1) Vater Table (A2) tion (A3)		fficient)	MLRA 1, 2, 4, Salt Crust (B11)	A and 4B)) (excep		Secondary Water-Sta	Indicators (2 or mor ained Leaves (B9) (M d 4B) Patterns (B10)	e required
OPPTH (incher property) OPPTH	rdrology Indicatoricators (any one interest (A1) Water Table (A2) Ition (A3) Marks (B1)	ndicator is su	fficient)	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb	A and 4B)	(excep		Secondary Water-Sta 4A and Drainage Dry-Seas	r Indicators (2 or mor ained Leaves (B9) (M d 4B) Patterns (B10) on Water Table (C2)	e required //LRA 1, 2
CDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim	/ /drology Indicate icators (any one in the Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2)	ndicator is su	fficient) ——	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide	A and 4B) rates (B13 e Odor (C	9) (excep 3) 1)	t .	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation	r Indicators (2 or mor ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2)	e required //LRA 1, 2
CDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim Drift D	/ /drology Indicate icators (any one in the Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3)	ndicator is su	fficient)	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfid Oxidized Rhizos	A and 4B) rates (B13 e Odor (Copheres ald	(excep 3) 1) ong Living	t .	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp	r Indicators (2 or mor ained Leaves (B9) (M d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial In hic Position (D2)	e required
Primary Indi Surfac X High V Satura Water Sedim Drift D Algal N	rdrology Indicators (any one increase (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)	ndicator is su	fficient)	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec	A and 4B) rates (B13 e Odor (Copheres ald	(C4)	t	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A	r Indicators (2 or mor ained Leaves (B9) (Material of the control	e required
YDROLOGY Wetland Hy Primary Indi Surfact X High V Satura Water Sedim Drift D Algal N	rdrology Indicators (any one in the Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)	ndicator is su	fficient)	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F	(C4)	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu	Indicators (2 or more ained Leaves (B9) (No. 10 d 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Inchic Position (D2) Aquitard (D3) tral Test (D5)	e required //LRA 1, 2
Pepth (incheremarks: YDROLOG) Wetland Hy Primary Indi Surfac X High V Satura Water Sedim Drift D Algal N Iron De	/ /drology Indicator icators (any one in the Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (B6)	ndicator is su		MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfid Oxidized Rhizos Presence of Rec Recent Iron Red Stunted or Stres	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	r Indicators (2 or mor ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2) In Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LR I	e required ILRA 1, 2 nagery (C9
CDROLOGY Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron Do Surface Inunda	r/drology Indicators (any one in the Water (A1) Vater Table (A2) Aution (A3) Marks (B1) Aution (B3) Mat or Crust (B4) Aution Crust (B4) Aution Cracks (B6) Aution Visible on Aution Visible on Aution Aution (B1)	ndicator is su	——————————————————————————————————————	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	Indicators (2 or more ained Leaves (B9) (No. 10 d 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Inchic Position (D2) Aquitard (D3) tral Test (D5)	e required ILRA 1, 2 nagery (C9
Pepth (inche emarks: YDROLOGY Wetland Hy Primary Indi Surfac X High V Satura Water Sedim Drift D Algal M Iron De Surfac Inunda Sparse	rdrology Indicators (any one ince Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ee Soil Cracks (B6 ation Visible on Ae	ndicator is su	——————————————————————————————————————	MLRA 1, 2, 4 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfid Oxidized Rhizos Presence of Rec Recent Iron Red Stunted or Stres	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F sed Plants	(C4) Plowed S	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	r Indicators (2 or mor ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2) In Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LR I	e required ILRA 1, 2
YDROLOGY Wetland Hy Primary Indi Surfac X High V Satura Water Sedim Drift D Algal N Iron Do Surfac Inunda Sparse Field Obser	rdrology Indicators (any one increase (A1) Vater Table (A2) Attion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ee Soil Cracks (B6) attion Visible on Acely Vegetated Contractions:	ndicator is su	(B7)	MLRA 1, 2, 4, Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfidor Oxidized Rhizos Presence of Recent Iron Red Stunted or Stres Other (Explain in	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F sed Plants I Remarks	(C4) Plowed S	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	r Indicators (2 or mor ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2) In Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LR I	e required ILRA 1, 2
Pepth (inche emarks: YDROLOGY Wetland Hy Primary Indi Surfac X High V Satura Water Sedim Drift D Algal M Iron Do Surfac Inunda Sparse Surface Wa	rdrology Indicators (any one increase (A1) Vater Table (A2) Attion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ee Soil Cracks (B6) attion Visible on Acely Vegetated Contractions: ter Present?	ndicator is su S) Prial Imagery ncave Surfac	(B7) e (B8)	MLRA 1, 2, 4, Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red Stunted or Stres Other (Explain in Depth (inches	A and 4B) rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants I Remarks	(C4) Plowed S (D1) (Li	t g Roots (C3) oils (C6)	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	r Indicators (2 or mor ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2) In Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) nt Mounds (D6) (LR I	e required ILRA 1, 2
Pepth (inche emarks: YDROLOGY Wetland Hy Primary Indi Surfac X High V Satura Water Sedim Drift D Algal M Iron Do Surfac Inunda Sparse Surface Wa Water table Saturation F	rdrology Indicators (any one increase (any one i	ndicator is su	(B7)	MLRA 1, 2, 4, Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfidor Oxidized Rhizos Presence of Recent Iron Red Stunted or Stres Other (Explain in	A and 4B) rates (B13 e Odor (C) pheres alc luced Iron uction in F sed Plants I Remarks):	(C4) Plowed S	t	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised An	r Indicators (2 or mor ained Leaves (B9) (Material of the deaves) (B10) on Water Table (C2) in Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) int Mounds (D6) (LRI	e required ILRA 1, 2
Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron De Surface Inunda Sparse Field Obsel Surface Wa Water table Saturation F (includes ca	rdrology Indicators (any one ince Water (A1) Vater Table (A2) Ition (A3) Marks (B1) Interposits (B3) Mat or Crust (B4) Interposits (B5) Interposits (B5) Interposits (B6) Interp	ondicator is su S) Perial Imagery Cave Surface Yes Yes X Yes X	(B7) e (B8) No No	MLRA 1, 2, 4, Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red Stunted or Stres Other (Explain in	A and 4B) rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants Remarks):	(C4) Plowed S (D1) (L1) 14 10	t	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised Ai Frost-Hea	r Indicators (2 or mor ained Leaves (B9) (Material of the deaves) (B10) on Water Table (C2) in Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) int Mounds (D6) (LRI	e required ILRA 1, 2 nagery (C9
Depth (incher Remarks: IYDROLOGY Wetland Hy Primary Indi Surface X High V Satura Water Sedim Drift D Algal N Iron Do Surface Inunda Sparse Surface Water table Saturation F (includes ca	rdrology Indicators (any one ince Water (A1) Vater Table (A2) Ition (A3) Marks (B1) In the Deposits (B2) In the Proposits (B3) In the Crust (B4) In the Proposits (B5) In the Soil Cracks (B6) In the	ondicator is su S) Perial Imagery Cave Surface Yes Yes X Yes X	(B7) e (B8) No No	MLRA 1, 2, 4, Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Rec Recent Iron Red Stunted or Stres Other (Explain in	A and 4B) rates (B13 e Odor (C' pheres alc luced Iron uction in F sed Plants Remarks):	(C4) Plowed S (D1) (L1) 14 10	t	Secondary Water-Sta 4A and Drainage Dry-Seas Saturation Geomorp Shallow A FAC-Neu Raised Ai Frost-Hea	r Indicators (2 or mor ained Leaves (B9) (Material of the deaves) (B10) on Water Table (C2) in Visible on Aerial In hic Position (D2) Aquitard (D3) tral Test (D5) int Mounds (D6) (LRI	e required ILRA 1, 2 nagery (C9

Project/Site:	Plas Newydd Fa	rm- Lancaster Lake S	Stud Area	City/County	: Clark Cou	nty			Sar	npling D	Date:	5/28/2014
Applicant/Owner:	Plas Newydd Fa	ırm, LLC					State:	WA	Sar	npling P	Point:	6
Investigator(s):	B. Haddaway, T	.Stout		Sectio	n, Township	, Range:	S1, T41	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none			Slope (%	o): <u>0-1%</u>
Subregion (LRR):	Northwest Fores	sts and Coast (LRR A) Lat:	45.850967°	•		Long:	122.77460)6°		Datu	m: <u>WGS 84</u>
Soil Map Unit Nam	ie: Sauvie si	ilt loam					NWI Cla	ssification:	none			
Are climatic / hydro	ologic conditions of	on the site typical for t	his time of y	/ear?	Yes	X	No		_(If no,	explain	in Remar	ks)
Are Vegetation		, or Hydrology				Are "N	lormal C	ircumstand	es" Pre	sent?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers	in Rema	arks.)	
SUMMARY OF	FINDINGS -	Attach site map s	showing	sampling	point loca	ations, t	ransec	ts, impo	rtant	feature	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1									
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	X	No			
Wetland Hydrology	/ Present?	Yes X No		WILIIII	a wellallu:		-					
Remarks:	•											
VEGETATION												
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshe	et:			
Tree Stratum (Us	se scientific name	s)	% Cover		Status?	Number	of Domi	nant Spec	ies			
1.		<i>σ.</i> ,				That Are	OBL, F	ACW, or F	AC:		3	(A)
2.						Total Nu	ımber of	Dominant	_			(/ ./
3.				-				All Strata:			3	(B)
4.				-		Percent	of Domi	nant Speci				
		Total Cover:	0					ACW, or F		1	00%	(A/B)
0 0												
Shrub Stratum 1.							nce Inde al % Co	ex Worksh ver of:	eet:	Mult	tiply by:	
2.						OBL spe		VOI 01.	x1 =	Ividit	0	
3.				-			-		_		0	
4.						FAC spe	-		_		0	
5.							-		x4 =		0	
		Total Cover:	0		·	UPL spe	-		x5 =		0	
Herb Stratum						Column	Totals:	0	(A)		0	 (B)
1. Festuca arund	linacea		20	Υ	FAC	Preval	ence Inc	dex = B/A =		#DIV	/0!	
2. Holcus lanatus	3		15	-	FAC							
3. Alopecurus pra	atensis		20	Υ	FAC	Hydrop	hytic Ve	getation lı	ndicato	rs:		
4. Agrostis capilla	aris		10		FAC		1 - Rap	id Test for	Hydrop	hytic Ve	getation	
5. Trifolium reper	าร		15		FAC	X	2 - Don	ninance Te	est is >5	0%		
6. Ranunculus re	pens		20	Υ	FAC	#####	3 - Prev	valence Ind	dexis ≤	3.0 ¹		
7								phological				pporting
8				-			data in	Remarks	or on a	separate	sheet)	
9								land Non-				
10							Probler	natic Hydro	ophytic	Vegetati	ion¹ (Expl	ain)
11												
		Total Cover:	100									
Woody Vine S 1.	<u>tratum</u>							dric soil an ss disturbe				st
2.								oo diotarbo	u or pre	Diomati	<u>. </u>	
·		Total Cover	0		· ———	Hydrop						
% Ba	re Ground in Herb			otic Crust	0	Present			Yes X		No	
						1 3						
% Ba Remarks:	re Ground in Herb	Total Cover: Stratum 0 %		otic Crust	0	Vegetat	ion		Yes X	(No	

Black Histic (A3)	Remarks PL=Pore Lining, M=Matrix. Plematic Hydric Soils ³ : m Muck (A10) d Parent Material (TF2) er (Explain in Remarks) hydrophytic vegetation and rology must be present,
Color (moist) % Color (moist) % Type Loc² Texture	PL=Pore Lining, M=Matrix. Ilematic Hydric Soils³: In Muck (A10) If Parent Material (TF2) Iter (Explain in Remarks) Individual of the present of the pres
10 YR 4/2	PL=Pore Lining, M=Matrix. Ilematic Hydric Soils³: In Muck (A10) If Parent Material (TF2) Iter (Explain in Remarks) Individual of the present of the pres
2-9	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
10 YR 6/1	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
S YR 4/6	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
SYR 4/6	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
9-16	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
SYR 4/6 5 C PL	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy. Histosol (A1)	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. \$\frac{1}{2}\text{Location:} \text{PL=Pore Lini} Ptydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hyd. Histosol (A1) Sandy Redox (S5) 2 cm Muck (A16 Histose) Sandy Redox (S5) 2 cm Muck (A16 Histose) Sandy Redox (S5) 3 cm Muck (A16 Histose) Sandy Muck (A16 Histose) Surface (A2) Stripped Matrix (S6) Red Parent Mat Black Histos (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Hydrogen Sulfide (A4) X Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Sandy Muck Mineral (S1) Depleted Dark Surface (F6) \$\frac{3}{3}Indicators of hydrophytic v. wetland hydrology must Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or proceed to the proceeding of the	Ilematic Hydric Soils ³ : In Muck (A10) If Parent Material (TF2) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks) In (Explain in Remarks)
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Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10 Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Mat Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain i Hydrogen Sulfide (A4) X Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A12) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic v Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or processor (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Y Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained I X High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Marks (B1) Aquatic Invertebrates (B13) Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visib Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Po Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquatia T Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo. Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hu Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes X No Depth (inches): Water table Present? Yes X No Depth (inches): Sutrace Capillary fringe) Wetland Hydrology Present? Wetland Hydrology Present?	m Muck (A10) d Parent Material (TF2) er (Explain in Remarks) hydrophytic vegetation and rology must be present,
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Sandy Muck Mineral (S1)	rology must be present,
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Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? YPROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained I Water-Stained Leaves (B9) (except Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water-Stained I Water Marks (B1) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visib Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Po Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitar Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neutral Te Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes X No Depth (inches): Water table Present? Yes X No Depth (inches): By Wetland Hydrology Present? (Includes capillary fringe)	turbed or problematic.
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(includes capillary fringe)	
	Present? Yes X No
accina Recorded I lata (ciraam dalida monitoring mell actial protoc previous increstions) it available.	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	_

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cou	nty		Sampling	Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling	Point:	7
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): <u>none</u>		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	ind Coast (LRR A)	Lat:	45.850967°)		Long: 122.774	1606°	Datum	: WGS 84
Soil Map Unit Nam							NWI Classification	on: none		
Are climatic / hydro	ologic conditions on the	ne site typical for th	nis time of y	/ear?	Yes	X	No	(If no, explain	n in Remark	s)
Are Vegetation	, Soil						Normal Circumsta	ances" Present?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pro	oblematic?	(If nee	eded, explain any	answers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, im	portant featui	es, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No								
Hydric Soil Present					ampled Are a Wetland?		Yes	No X		
•	/ Present?	Yes No		Within	a vvenanu?					
known disturbance colonization by nor	cated in levee protect of soil and vegetation- n-seeded species. Ploated at an elevation to f report.	n, the delineation of does not suppor	of wetland t hydrophyt	boundaries i ic plants oth	s largely baser than seed	sed on ob ded speci	oserved direct hydies or feature obs	drology (water tal servable saturatio	ole/saturatio n within 16"	n) and of soil
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test works	heet:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?		r of Dominant Sp			
1						That Ar	e OBL, FACW, o	r FAC:	2	_(A)
2				-	·		umber of Domina			
3						Species	s Across All Strata	a:	2	_(B)
4						Percent	t of Dominant Sp	ecies		
		Total Cover:	0			That Ar	e OBL, FACW, o	r FAC:	100%	_(A/B)
Shrub Stratum 1.						То	ence Index Work tal % Cover of:		ltiply by:	
2						OBL sp		x1 =	0	_
3				-			species	x2 =	0	_
4						FAC sp	ecies <u>110</u>	x3 =	330	_
5						FACU s	species 40	x4 =	160	_
		Total Cover:	0			UPL sp		x5 =	0	_
Herb Stratum						Column	Totals: 150	(A)	490	_(B)
 Festuca arund 	linacea		45	Y	FAC	Preva	lence Index = B/	A =3	.3	_
2. Holcus lanatus	3		20		FAC					
Agrostis capilla			10		FAC	Hydrop	hytic Vegetation	n Indicators:		
 Dactylis glome 	rata		15		FACU		1 - Rapid Test	for Hydrophytic V	egetation	
Plantago lance	eolata		20		FACU	X	2 - Dominance	Test is >50%		
6. Trifolium prate	nse		5		FACU		3 - Prevalence	Index is ≤3.0 ¹		
7. Ranunculus re	pens		5		FAC		4 - Morphologic	cal Adaptation1 (F	Provide supp	orting
8. Trifolium reper	าร		30	Υ	FAC		data in Remark	s or on a separa	te sheet)	
9							5 - Wetland No	n-Vascular Plant	s ¹	
10							Problematic Hy	drophytic Vegeta	ition¹ (Explai	n)
		Total Cover:	150							
Woody Vine St	<u>tratum</u>							and wetland hydr		
1 2.				_	-			DOG OF PRODICINA		
		Total Cover:	0			Hydrop Vegeta	•			
% Rai	re Ground in Herb Str				٥	Presen		Yes X	No	
	on does not satisfy P							<u>/</u>		
rtomanto. Vogotati	on dood not dailely t	iovalonoo maaxiin	101 10 10001	ou iii urou oc	Joues William	710 paos	are openies.			

Depth	scription: (Describe	to the de		l (1)-	- !!! t -		Come the select	f ! d! t \
	N A = 4	10 1110 41	-			r or con	itirm the abs	ence of indicators.)
	Matrix	0/		Redox Featu		. 2		D I .
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	Loc ²	Texture	e Remarks
0-4	10 YR 3/2	75	10 YR 5/2		<u>D</u>	M	SCL	
			7.5 YR 5/6		<u>C</u>	M		
4.16	10 VD 5/2		5 YR 5/6		<u>C</u>	PL DI	CILTION	M DARK CHARCOAL LIKE
4-16	10 YR 5/2	80	5 YR 4/6 7.5 YR 5/8		<u>C</u>	PL M	SILT LOA	M DARK, CHARCOAL-LIKE MATERIAL IN MATRIX
	· ·		7.5 TK 5/6		<u> </u>	IVI	-	WATERIAL IN WATRIA
							-	
¹ Type: C=	Concentration D=Der	oletion RM	/=Reduced Matr	ix CS=Cove	red or Coa	ted Sand	d Grains 2	ocation: PL=Pore Lining, M=Matrix.
	il Indicators: (Applic					nica cana		s for Problematic Hydric Soils ³ :
-	sol (A1)			dy Redox (St	-			2 cm Muck (A10)
	Epipedon (A2)			ped Matrix (Red Parent Material (TF2)
	Histic (A3)			ny Mucky Mi		(except l	MLRA 1)	Other (Explain in Remarks)
	ogen Sulfide (A4)			ny Gleyed M			,	
	eted Below Dark Surfa	ce (A11)		eted Matrix (
	Dark Surface (A12)	, ,		ox Dark Surf			³ Indi	cators of hydrophytic vegetation and
	y Muck Mineral (S1)			eted Dark Si)		etland hydrology must be present,
Sand	y gleyed Matrix (S4)			ox Depressio				unless disturbed or problematic.
Restrictive	e Layer (if present):							
Type:							l.: - O.:I D.	10 V V
Depth (inch	les).					пу	dric Soil Pro	esent? Yes X No
YDROLOG	Υ							
Wetland H								
	ydrology Indicators:		5 7 . 0					
Primary Inc	dicators (any one indic			- Otain add	(D0)	/		Secondary Indicators (2 or more require
Primary Inc	dicators (any one indic ce Water (A1)		Wate	er-Stained Le		(except		Water-Stained Leaves (B9) (MLRA 1,
Primary Inc Surfa	dicators (any one indic ce Water (A1) Water Table (A2)		Wate	LRA 1, 2, 4A		(except		Water-Stained Leaves (B9) (MLRA 1, 4A and 4B)
Primary Inc Surface High V	dicators (any one indic ce Water (A1) Water Table (A2) ation (A3)		Wate M Salt	LRA 1, 2, 4 4 Crust (B11)	and 4B)			Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10)
Primary Inc Surface High V Saturace Water	dicators (any one indic ce Water (A1) Water Table (A2) ation (A3) r Marks (B1)		Wate M Salt Aqua	LRA 1, 2, 4 A Crust (B11) atic Invertebr	and 4B)			Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Inc Surface High V Satura Water Sedin	dicators (any one indicators (any one indicators) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2)		Wate M Salt Aqua	LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide	ates (B13) Odor (C1)		Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Primary Ind Surface High V Satura Wate Sedin Drift I	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)		Wate M Salt Aqua Hydr	LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp	ates (B13) Odor (C1) Oheres alor) ng Living		Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Carticle Control Control Control Control Control Control Control Control Control Con
Primary Inc Surfa High V Satura Wate Sedin Drift I Algal	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		Wate M Salt Aqua Hydr Oxid	LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red	ates (B13) Odor (C1) Oheres alouced Iron	ng Living	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Inc Surfar High V Saturar Water Sedin Drift E Algal Iron E	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		Wate M Salt Aqua Hydr Oxid Pres	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide ized Rhizosp ence of Red ent Iron Redu	ates (B13) Odor (C1) Oheres alouced Iron uction in P	ng Living (C4)	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calculus Companion (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Inc Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) In Marks (B1) Inent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6)	cator is su	Wate M Salt Aqua Hydr Oxid Pres Reca Stun	LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Reduted or Stress	and 4B) ates (B13) Odor (C1) oheres alouced Iron action in P	ng Living (C4) lowed So (D1) (LR	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Ind Surface High V Satura Water Sedin Drift E Algal Iron E Surface Inund	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	ator is su	Wate M Salt Aqua Hydr Oxid Pres Reca Stun (B7) Othe	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide ized Rhizosp ence of Red ent Iron Redu	and 4B) ates (B13) Odor (C1) oheres alouced Iron action in P	ng Living (C4) lowed So (D1) (LR	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Calculus Companion (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Ind Surface High V Satura Water Sedin Drift E Algal Iron E Surface Inund	dicators (any one indicators (any one indicators (A1) Water Table (A2) ation (A3) In Marks (B1) Inent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6) Ination Visible on Aerial Sely Vegetated Concar	ator is su	Wate M Salt Aqua Hydr Oxid Pres Reca Stun (B7) Othe	LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Reduted or Stress	and 4B) ates (B13) Odor (C1) oheres alouced Iron action in P	ng Living (C4) lowed So (D1) (LR	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Ind Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars Field Obse Surface Water	dicators (any one indicators (any one indicators (any one indicators (any one indicators) Water Table (A2) ation (A3) If Marks (B1) Inent Deposits (B2) Inent Deposits (B3) Inent Oregonits (B4) Inent Oregonits (B4) Inent Deposits (B4) Inent Deposits (B4) Inent Deposits (B4) Inent Deposits (B4) Inent Deposits (B6) Inent Oregonits (B6) Inent O	ator is su Imagery ve Surfac	Wate Wate M Salt Aqua Hydr Oxid Pres Recc Stun Othe (B7)	LRA 1, 2, 4A Crust (B11) atic Invertebrated Sulfide ized Rhizospence of Red ent Iron Reduted or Stresser (Explain in	and 4B) ates (B13) Odor (C1) oheres alor uced Iron uction in P eed Plants Remarks)	ng Living (C4) lowed So (D1) (LR	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristics) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Inc Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars Field Obse Surface Water table	dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B6) In Mat or Crust (B4) Deposits (B5) Deposits (B5) D	I Imagery ve Surfac	Wate Wate	LRA 1, 2, 4A Crust (B11) atic Invertebrated Sulfide ized Rhizospence of Red ent Iron Reduted or Stresser (Explain in	and 4B) ates (B13) Odor (C1) oheres alor uced Iron uction in P sed Plants Remarks)	ng Living (C4) lowed So (D1) (LR	Roots (C3) oils (C6) RR A)	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Primary Ind Surface Water Sedin Drift D Algal Iron D Surface Inund Spars Field Obse Surface Water table Saturation (includes c.	dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B5) In Mat or Crust (B4) Deposits (B6) In Mat or Crust (B4) Deposits (B5) Deposits (B5) D	I Imagery ve Surfac	Wate Wate M Salt Aqua Hydr Oxid Pres Recc Stun Othe e (B8) Othe No X De No X	LRA 1, 2, 4A Crust (B11) atic Invertebrated Sulfide ized Rhizospence of Red ent Iron Reduted or Stresser (Explain in epth (inches) epth (inches)	and 4B) ates (B13) Odor (C1) oheres alor uced Iron uction in P eed Plants Remarks)	(C4) lowed So (D1) (LR	Roots (C3) pils (C6) RR A) Wetland H	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Inc Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars Field Obse Surface Water table Saturation (includes collescribe Receivers)	dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) In Marks (B1) Inent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Indicator Crust (B4) Deposits (B5) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B2) I	I Imagery ve Surfac	Wate Wate M Salt Aqua Hydr Oxid Pres Recc Stun Othe e (B8) Othe No X De No X	LRA 1, 2, 4A Crust (B11) atic Invertebrated Sulfide ized Rhizospence of Red ent Iron Reduted or Stresser (Explain in epth (inches) epth (inches)	and 4B) ates (B13) Odor (C1) oheres alor uced Iron uction in P eed Plants Remarks)	(C4) lowed So (D1) (LR	Roots (C3) pils (C6) RR A) Wetland H	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Primary Inc Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars Field Obse Surface Water table Saturation (includes collescribe Receivers)	dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) In Marks (B1) Inent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Indicator Crust (B4) Deposits (B5) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B6) Indicator Crust (B2) I	I Imagery ve Surfac	Wate Wate M Salt Aqua Hydr Oxid Pres Recc Stun Othe e (B8) Othe No X De No X	LRA 1, 2, 4A Crust (B11) atic Invertebrated Sulfide ized Rhizospence of Red ent Iron Reduted or Stresser (Explain in epth (inches) epth (inches)	and 4B) ates (B13) Odor (C1) oheres alor uced Iron uction in P eed Plants Remarks)	(C4) lowed So (D1) (LR	Roots (C3) pils (C6) RR A) Wetland H	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Caracteristic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site:	Plas Newydd Farm- Lancaster Lake S	Stud Area	City/County:	Clark Cour	inty			Sampling D	Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm, LLC					State: WA	Д	Sampling F	Point:	8
nvestigator(s):	B. Haddaway, T.Stout		Section	n, Township	o, Range:	S1, T4N, F	₹1W			
_andform (hillslope	e, terrace, etc.): Floodplain		Local re	elief (concav	/e, convex,	none): no	ne		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests and Coast (LRR A	<u>)</u> Lat:	45.850967°	1		Long: 12:	2.774606)°	_ Datum:	WGS 84
Soil Map Unit Nam	e: Sauvie silt loam, sandy substr	atum			1	NWI Classi	fication:	none		
Are climatic / hydro	ologic conditions on the site typical for t	his time of	/ear?	Yes 2	X	No		(If no, explain	in Remarks	;)
Are Vegetation	, Soil, or Hydrology		significantly	disturbed?	Are "N	ormal Circu	ımstance	es" Present?	Yes X	_No
Are Vegetation	, Soil, or Hydrology		naturally pro	oblematic?	(If need	ded, explai	n any ans	swers in Rema	arks.)	
SUMMARY OF	FINDINGS - Attach site map	showing	sampling	point loca	ations, t	ransects	, impor	tant featur	es, etc.	
Hydrophytic Vegeta	ation Present? Yes X No)	la tha Ca	A						
Hydric Soil Present	t? Yes X No)		ampled Are a Wetland?		Yes		No X		
Wetland Hydrology	Present? YesNo	<u>X</u>								
known disturbance colonization by nor	cated in levee protected floodplain of to soil and vegetation, the delineation n-seeded species. Plot does not supposition that does not appear to recieve su	of wetland rt hydrophyl	boundaries i ic plants oth	is largely bas er than seed	sed on obs ded specie	served dire	ct hydrolo e observa	ogy (water tab able saturatior	le/saturatior n within 16".	n) and Plot is
VEGETATION										
		Absolute	Dominant	Indicator	Dominar	nce Test w	orkshee	t:		
Tree Stratum (Us	se scientific names.)	% Cover	Species?	Status?		of Dominar	•			
1					That Are	OBL, FAC	W, or FA	.C:	2	(A)
2.						mber of Do				_
3					Species	Across All	Strata:		2	_(B)
4					Percent	of Dominar	nt Specie	S		
	Total Cover:	0			That Are	OBL, FAC	W, or FA	.C: <u>1</u>	00%	_(A/B)
Shrub Stratum 1. 2. 3. 4. 5. Herb Stratum	Total Cover:					pecies ecies cies	116 32 1	Mult x1 = x2 = x3 = x4 = x5 =	tiply by: 0 0 348 128 5	- - - - - - (B)
1. Alopecurus pra	atensis	1		FAC		ence Index		` /		_(5)
2. Holcus lanatus		30	Υ	FAC			-			-
3. Agrostis capilla	aris	60	Υ	FAC	Hydroph	ytic Veget	tation Inc	dicators:		
4. Anthoxanthum	odoratum	20		FACU		1 - Rapid	Test for F	Hydrophytic Ve	egetation	
5. Plantago lance	eolata	2		FACU	X	2 - Domina	ance Tes	t is >50%		
6. Trifolium prate	nse	5		FACU		3 - Prevale	ence Inde	ex is ≤3.0 ¹		
7. Lolium perenne	e	5		FAC			-	daptation1 (P		orting
3. Trifolium reper		20		FAC	.			on a separate	. '	
9. <u>Hypochaeris ra</u>	•	5		FACU				ascular Plants		
10. <i>Bromus comm</i>	•	1		UPL	.	Problemat	ic Hydron	ohytic Vegetat	tion' (Explaii	า)
11. <u>Woody Vine Si</u>	Total Cover:	149						wetland hydro		
2.					Hydroph	nvtic				
	Total Cover:				Vegetati	-				
% Baı	re Ground in Herb Stratum0 %	Cover of Bi	otic Crust	0	Present	?	,	Yes	No X	
Remarks: Vegetati	on does not satisfy Prevalence Index.	Dominant s	oecies are se	eded; non	seeded sp	ecies are p	redomina	antly FACU ar	nd UPL.	

SOIL								Sampling I	Point:	
Profile De	escription: (Describe	e to the de	epth needed to doc	ument th	e indicat	or or co	onfirm the absen	ce of indicator	s.)	
Depth	Matrix		-	dox Featu					•	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	 Texture		Remarks	
0-4	10 YR 3/2	100		,,,	. , , , ,		SILT LOAM			
4-9	7.5 YR 4/1	80	10 YR 4/4	5	С	M	SILT LOAM			
70	7.0 11(4/1		5 YR 3/4	10	C	M	OILT LOT (IVI			
	_		7.5 YR 5/1	5	D	M	_	_		
9-16	10 YR 5/2	80	5 YR 4/4	10	C	M	SILT LOAM			
9-10	10 1K 3/2		10 YR 5/1		D	M	SILT LOAW			
			5 YR 3/4	5	C	PL		NOT ALC	ONG LIVING ROO	TS
			0 11(0/1			· <u></u>			ANO LIVINO NOC	
¹ Type: C=	-Concentration, D=De	pletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated Sa	nd Grains. ² Loca	ation: PL=Pore	Lining, M=Matrix.	
Hydric Sc	oil Indicators: (Appli	cable to a	II LRRs, unless oth	nerwise n	oted.)		Indicators for	or Problematic	Hydric Soils ³ :	
Histo	osol (A1)		Sandy I	Redox (S5	5)			2 cm Muck ((A10)	
Histic	c Epipedon (A2)		Strippe	d Matrix (S	S6)		_	Red Parent	Material (TF2)	
	k Histic (A3)) (excep	ot MLRA 1)		ain in Remarks)	
	rogen Sulfide (A4)			Gleyed M	, ,	•	, <u> </u>	_ ` '	,	
	eted Below Dark Surfa	ace (A11)		ed Matrix (,				
	k Dark Surface (A12)	200 (7111)		Dark Surfa			³ Indicat	ors of hydrophy	tic vegetation and	
	dy Muck Mineral (S1)			ed Dark Su		7)		and hydrology m	=	
	dy gleyed Matrix (S4)			Depressio		')		less disturbed or	•	
	ve Layer (if present):			БСРГСЗЗІО	713 (1 0)		u iii	C33 distarbed of	problematic.	
	e Layer (ii present).									
Type:	shoo'.					١.	Indeia Cail Deac	42	V V	NI.
Depth (inc	ines).					'	Hydric Soil Prese	ant?	Yes X	No
YDROLOG										
	Hydrology Indicators		55 ()					0		
	idicators (any one indi	cator is su							dicators (2 or more	
	ace Water (A1)			Stained Le	•		pt		ed Leaves (B9) (M	ILRA 1, 2,
High	Water Table (A2)		MLR	A 1, 2, 4A	and 4B))	_	4A and 4		
	ration (A3)		Salt Cru	ust (B11)			_	_	atterns (B10)	
Wate	er Marks (B1)		Aquatio	Invertebr	ates (B13	3)		Dry-Season	Water Table (C2)	
Sedi	ment Deposits (B2)		Hydrog	en Sulfide	Odor (C	1)	_	Saturation V	isible on Aerial Im	agery (C9)
Drift	Deposits (B3)		Oxidize	d Rhizosp	heres ald	ong Livir	ng Roots (C3)	Geomorphic	Position (D2)	
Alga	l Mat or Crust (B4)		Presen	ce of Red	uced Iron	(C4)		Shallow Aqu	ıitard (D3)	
Iron	Deposits (B5)		Recent	Iron Redu	uction in F	Plowed S	Soils (C6)	FAC-Neutral	l Test (D5)	
Surfa	ace Soil Cracks (B6)		Stunted	or Stress	ed Plants	s (D1) (L		Raised Ant I	Mounds (D6) (LRR	R A)
	dation Visible on Aeria	al Imagery		Explain in			, <u> </u>		Hummocks (D7)	,
	sely Vegetated Conca		· · ·	•		,	_	_	,	
	servations:		- ()				1			
	/ater Present? Ye	es	No X Depti	n (inches)	:					
	le Present? Ye			n (inches)						
Saturation	Present? Ye	es		n (inches)			Wetland Hyd	rology Present	? Yes	No X
(includes	capillary fringe)									
escribe Re	ecorded Data (stream o	gauge, mo	nitoring well, aerial	ohotos, pr	evious in	spection	ns), if available:			
Domarka:										
Remarks:										

Project/Site:	Plas Newydd Farm	- Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty		Sampling	Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm	, LLC					State: WA	Sampling	Point:	9
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_			k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°				4606°	_ Datum	: WGS 84
Soil Map Unit Nam		oam, sandy substra					NWI Classification	on: none		
Are climatic / hydro	ologic conditions on t				_			(If no, explain		
Are Vegetation	, Soil						Normal Circumsta	ances" Present?	Yes X	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any	answers in Rem	ıarks.)	
SUMMARY OF	FINDINGS - Att	tach site map s	showing	sampling	point loca	ations,	transects, im	portant featui	res, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes X	No		
Wetland Hydrology	y Present?	Yes X No		WILLIIII	a vvetianu:					
Remarks:	•									
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test works	sheet:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?		r of Dominant Sp			
1.						That Ar	e OBL, FACW, o	or FAC:	6	(A)
2.							umber of Domina			-
3						Species	Across All Strat	a:	6	_(B)
4						Percent	of Dominant Sp	ecies		
		Total Cover:	0			That Ar	e OBL, FACW, o	r FAC:	100%	_(A/B)
Shrub Stratum 1.						То	ence Index Work tal % Cover of:	Mu	Iltiply by:	_
2.						OBL sp		x1 =	0	_
3. 4.					· ——	FAC sp	species	x2 x3 =	0	_
5.					· ———	FACU s		x3 = x4 =	0	_
J		Total Cover:	0			UPL sp		x5 =	0	_
Herb Stratum		Total Gover.					Totals: 0		0	(B)
1. Poa trivialis			15	Υ	FAC		lence Index = B/		V/0!	_(5)
Holcus lanatus	 S		15		FAC			· · <u> </u>		-
3. Alopecurus pra		_	15		FAC	Hydrop	hytic Vegetation	n Indicators:		
4. Lotus cornicula			15	Y	FAC		-	for Hydrophytic V	egetation	
5. Trifolium reper	าร		20	Υ	FAC	Х	2 - Dominance			
6. Ranunculus re	pens		20	Υ	FAC	#####	3 - Prevalence	Index is ≤3.0 ¹		
7.							4 - Morphologic	cal Adaptation1 (F	^o rovide supp	orting
_							data in Remark	s or on a separa	te sheet)	
							5 - Wetland No	n-Vascular Plant	s ¹	
							Problematic Hy	drophytic Vegeta	ıtion¹ (Explai	n)
				-						
		Total Cover:	100							
Woody Vine S 1.	<u>tratum</u>							and wetland hydrobled or problema		
2.						Hydrop	hytic			
		Total Cover:	0			Vegeta	•			
% Ba	re Ground in Herb St				0	Presen		Yes X	No	
Remarks:						I				

SOIL								Sampling Po	oint:	ę
Profile De	escription: (Describe	to the de	epth needed to doc	ument th	e indicat	or or co	onfirm the absence	of indicators.)	
Depth	Matrix		Re	dox Featu	ıres		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-9	7.5 YR 4/1	70	5 YR 3/4	15	С	М	SILT LOAM			
			10 YR 5/2	10	D	М				
			10 YR 4/4	5	С	М				
9-11	10 YR 5/2	75	5 YR 4/4	25	С	М	SILT LOAM			
11-16	7.5 YR 4/1	60	4/N	30	D	М	SILT LOAM			
			5 YR 4/4	10	С	М				
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated Sar	nd Grains. ² Locati	on: PL=Pore Li	ning, M=Matrix.	
Hydric So	il Indicators: (Applic	sable to a	II I DDe unlose oth	orwiso n	otod)		Indicators for	Problematic H	vdric Spile ³ :	
	osol (A1)	Jable to a		Redox (S5			indicators for	2 cm Muck (A	•	
	Epipedon (A2)			d Matrix (S				Red Parent M		
	K Histic (A3)			•	,) (excen	t MLRA 1)	Other (Explain		
	ogen Sulfide (A4)			Gleyed M	• •			Otrici (Explair	i ii i Kemana)	
	eted Below Dark Surfa	rce (A11)		ed Matrix (,				
	Coark Surface (A12)	.00 (/ 1.1.)		Dark Surfa			³ Indicator	s of hydrophytic	vegetation and	
	ly Muck Mineral (S1)			d Dark Su	, ,	7)		d hydrology mus	-	
	ly gleyed Matrix (S4)			Depressio		. ,		s disturbed or p	•	
	e Layer (if present):		<u> </u>		- (- /					
Type:	, , ,									
Depth (inc	hes):						Hydric Soil Presen	t?	Yes X	No
Remarks:	<u> </u>						<u>*</u>			
HYDROLOG	SY									
Wetland F	hydrology Indicators	:								
	dicators (any one indic	cator is su						Secondary Indi	cators (2 or more	e required)
	ace Water (A1)			Stained Le	,		ot	Water-Stained	d Leaves (B9) (N	ILRA 1, 2,
	Water Table (A2)			A 1, 2, 4A	and 4B))		4A and 4B	•	
	ration (A3)			ust (B11)				Drainage Patt		
	er Marks (B1)			Invertebr					Vater Table (C2)	
	ment Deposits (B2)			en Sulfide					sible on Aerial Im	agery (C9)
	Deposits (B3)					•	g Roots (C3)	Geomorphic F		
	Mat or Crust (B4)			ce of Red				Shallow Aquita	` ,	
	Deposits (B5)			Iron Redu			` ′ —	FAC-Neutral 7		
	ace Soil Cracks (B6)			l or Stress			.RR A)		ounds (D6) (LRF	R A)
	dation Visible on Aeria			Explain in	Remarks	s)		Frost-Heave F	Hummocks (D7)	
Spars	sely Vegetated Conca	ve Surfac	e (B8)							
	ervations:		N. V. B. III							
	/ater Present? Yelle Present? Yelle	s X		n (inches) n (inches)		14				
Saturation		s X		n (inches)		11	Wetland Hydro	logy Present?	Yes X	No
	capillary fringe)									
Describe Re	corded Data (stream g	gauge, mo	nitoring well, aerial p	ohotos, pr	evious in	spection	s), if available:			
Remarks:										
i tomanto.										

Project/Site:	Plas Newydd Farm	 Lancaster Lake S 	tud Area	City/County:	Clark Cour	nty		_ Sampling D)ate:	5/28/2014
Applicant/Owner:	Plas Newydd Farm	, LLC					State: WA	Sampling F	oint:	10
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range: S	S1, T4N, R1W			
Landform (hillslope,	, terrace, etc.):	Floodplain		Local re	lief (concav	e, convex, r	none): none		Slope (%)	: 0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°	•		Long: 122.77460	6°	Datun	n: WGS 84
Soil Map Unit Name	e: Sauvie silt l	oam, sandy substra					WI Classification:	none	-	
Are climatic / hydrol	logic conditions on t	he site typical for th	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remark	(s)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "No	rmal Circumstanc	es" Present?	Yes X	No
Are Vegetation		, or Hydrology					ed, explain any ar			
SUMMARY OF	FINDINGS – At	tach site map s	showing :	sampling	point loca	ations, tra	ansects, impo	rtant featur	es, etc.	
Hydrophytic Vegeta	ition Present?	Yes No	Х	la tha C						
Hydric Soil Present	?	Yes X No			ampled Area a Wetland?		Yes	No X		
Wetland Hydrology	Present?	Yes No	Χ	Within	ı wedana.			-	<u> </u>	
Remarks: Plot is loc	cated in levee prote	cted floodplain of th	ne Lewis an	d Columbia	Rivers in ar	historically	tilled and seeded	l pasture (withi	n 3 vears).	Due to
colonization by non-	of soil and vegetatic -seeded species. Pl				0 ,		•	. .		, a
VEGETATION			Absoluto	Dominant	Indicator	Dominan	ce Test workshe			
			Absolute % Cover	Dominant Species?	Status?					
	e scientific names.)						of Dominant Specions OBL, FACW, or Factor			
1									1	(A)
							nber of Dominant Across All Strata:		•	(D)
3								-	2	(B)
4		Total Cover:					f Dominant Specie OBL, FACW, or F		50%	(A/B)
		Total Cover.				That Ale V	JBL, FACW, OF FA	40. <u> </u>	JU /6	_(A/B)
Shrub Stratum						Prevalen	ce Index Worksh	eet·		
4							I % Cover of:		tiply by:	
2.						OBL spec		x1 =	0	_
3.						FACW sp		x2 =	0	_
4.						FAC spec	ies	x3 =	0	_
5.						FACU spe	ecies	x4 =	0	_
		Total Cover:	0			UPL spec	ies	x5 =	0	
Herb Stratum						Column T	otals: 0	(A)	0	(B)
1. <u>Medicago lupul</u>	ina		10		FACU	Prevale	nce Index = B/A =	#DI\	//0!	
Rumex acetose	ella		5		FACU					
3. Equisetum arve	ense		1		FAC	Hydrophy	ytic Vegetation In	dicators:		
4. Alopecurus pra	tensis		1		FAC		1 - Rapid Test for		egetation	
5. Plantago lance			5		FACU		2 - Dominance Te			
6. Trifolium repens			25	Y	FAC	l ——	3 - Prevalence Ind			
7. <u>Hypochaeris ra</u>			1		FACU		4 - Morphological			porting
B. <u>Bromus commu</u>	ıtatus		75	Y	UPL		data in Remarks o	•		
							5 - Wetland Non-V			.:
10. 11						'	Problematic Hydro	priyuc vegetat	ııon (⊏xpla	III1 <i>)</i>
11		Total Cover:	123							
Woody Vine Str	ratum	Total Cover.	123			¹ Indicator	s of hydric soil and	d watland bydr	ology must	
1.	<u>ratum</u>						s of flydric soil and it, unless disturbed			
2.					. —		•			
		Total Cover:	0			Hydrophy				
% Bare	e Ground in Herb St				0	Present?		Yes	No X	
% Bare Remarks:	e Ground in Herb Si				0	Vegetation Present?		Yes	No <u>X</u>	

SOIL											Sampling Pol		10
	scription: (Describe	to the de	pth neede				or or c	onfi	rm the a	absence of	indicators.)		
Depth	Matrix				edox Featu			2					
(inches)	Color (moist)	<u>%</u>	Color (r	noist)	<u>%</u>	Type ¹	Loc	;		ture		Remarks	
0-3	10 YR 3/3	95	5 YR 3/4		5	<u>C</u>	<u>M</u>		SILT L		NOT ALCOHO	0.1.11.01.00	0.70
3-8	10 YR 4/2	89	5 YR 4/6		10	<u>C</u>	PL	_	SILT L	OAM	NOT ALONG	G LIVING RO	OIS
0.40	40.)/D 4/0		7.5 YR 4/0		1	<u>C</u>	<u>M</u>	_	011.7.1				
8-10	10 YR 4/2	80	7.5 YR 4/0		10	<u>C</u>	<u>M</u>	_	SILT L	OAM			
40.40	40 VD 0/0		10 YR 5/4	•		<u>C</u>	<u>M</u>		CAND				
10-16	10 YR 3/2	95	5 YR 4/6		5	С	M		SAND				
	·				· ——	-							
¹ Type: C=	Concentration, D=Depl	etion, RI	/=Reduced	l Matrix,	CS=Cove	red or Co	ated Sa	and	Grains.	² Location:	PL=Pore Lin	ing, M=Matrix	<u>.</u>
Hydric So	il Indicators: (Applica	able to a	II LRRs, ur	nless ot	herwise n	oted.)			Indicat	ors for Pro	blematic Hy	dric Soils ³ :	
	sol (A1)			-	Redox (S5						cm Muck (A1		
	Epipedon (A2)				ed Matrix (S						ed Parent Ma	` ,	
	(Histic (A3)			-	Mucky Mi			pt M	ILRA 1)	0	ther (Explain	in Remarks)	
	ogen Sulfide (A4)			-	Gleyed Ma)						
	eted Below Dark Surfac	e (A11)	<u>X</u>		ed Matrix (3.				_
	Dark Surface (A12)				Dark Surfa				ી			vegetation and	d
	y Muck Mineral (S1)			•	ed Dark Su	•	7)			-	drology must		
	y gleyed Matrix (S4)			Redox	Depressio	ns (F8)				unless d	isturbed or pr	oblematic.	
Restrictive	e Layer (if present):												
Type:													
Depth (incl	nes): oil has been tilled within							Нус	Iric Soil	Present?		Yes X	No
HYDROLOG	SY Hydrology Indicators:												
	dicators (any one indica	ator is su	fficient)							Sec	condary Indic	ators (2 or mo	ore required)
	ace Water (A1)	101 13 34	molent)	Water-	Stained Le	aves (R0) (exce	nt				Leaves (B9) (• •
	Water Table (A2)				RA 1, 2, 4A			٠,٢٠		``	4A and 4B)	, , ,	,,
	ration (A3)				ust (B11)	ana 45)				<u> </u>	rainage Patte		
	er Marks (B1)				c Invertebr	ates (B13	3)				=	ater Table (C2	2)
	ment Deposits (B2)				gen Sulfide						-	ole on Aerial I	
	Deposits (B3)				ed Rhizosp			ina F	Roots (C		eomorphic Po		magory (00)
	Mat or Crust (B4)				ice of Red		_	9 .	(0		nallow Aquita		
	Deposits (B5)				t Iron Redu		, ,	Soil	s (C6)		AC-Neutral Te		
	ace Soil Cracks (B6)				d or Stress							unds (D6) (LR	RRA)
	dation Visible on Aerial	lmagery	(B7)		Explain in				ι Α,			ummocks (D7	
	sely Vegetated Concav	• •	` ' —	Outer (Explain	rtomarko	')			''	ost ricave ri	ammooko (B7	,
Field Obse				_									
	ater Present? Yes		No X		th (inches):								
Water table Saturation			No X No X		th (inches): th (inches):				Wetland	d Hydrolog	y Present?	Yes	No X
	capillary fringe)		1NO A	_ pebi	(11101103).				••cuail	a riyurolog	y i icaciil!	169	
_ `	corded Data (stream ga	auge, mo	nitoring we	II, aerial	photos, pr	evious in:	spectio	ns),	if availa	ble:			
Damada													
Remarks:													

policent/Owner: Disc Neurald Form 110	014471104	Oity/Odditty.	Clark Cour	ity		te: 5/28/201
pplicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling Po	int:1
nvestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: <u>S1, T4N, R1W</u>		
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concave	e, convex, none): none		Slope (%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR)	A) Lat:	45.850967°	,	Long: 122.77460)6°	Datum: WGS 84
oil Map Unit Name: Sauvie silt loam				NWI Classification:	none	
re climatic / hydrologic conditions on the site typical for	this time of	/ear?	Yes 2	X No	(If no, explain ir	n Remarks)
re Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstance	ces" Present?	'es X No
re Vegetation , Soil , or Hydrology				(If needed, explain any a		
GUMMARY OF FINDINGS – Attach site map				ations, transects, impo	ortant features	s, etc.
lydrophytic Vegetation Present? Yes N	No X					
lydric Soil Present? Yes X	No		ampled Area a Wetland?	a Yes	No X	
Vetland Hydrology Present? Yes N		Within	a welland:			
Remarks: Plot is located in levee protected floodplain on nown disturbance of soil and vegetation, the delineatio plonization by non-seeded species. Plot does not supp urface.	n of wetland	boundaries i	s largely bas	sed on observed direct hydro	ology (water table	/saturation) and
/EGETATION						
	Absolute	Dominant		Dominance Test workshe	eet:	
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Spec		
				That Are OBL, FACW, or F	AC:	I (A)
				Total Number of Dominant		
				Species Across All Strata:		(B)
	<u> </u>			Percent of Dominant Speci	es	
Total Cove	er: 0			That Are OBL, FACW, or F		<u>(A/B)</u>
hrub Stratum Total Cove lerb Stratum Anthoxanthum odoratum Festuca arundinacea			FACU FAC	Total % Cover of: OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Index = B/A =	Multip x1 = (x2 = (x3 = (x4 = (x5 = ((A) (oly by: 0 0 0 0 0 0 0 0 0 0 0 (B)
Ranunculus repens	15		FAC	Hydrophytic Vegetation II	ndicators:	
Poa trivialis	10		FAC	1 - Rapid Test for		etation
. Holcus lanatus	5		FAC	2 - Dominance Te		otation:
. Trifolium repens		Y	FAC	##### 3 - Prevalence Inc		
. Hypochaeris radicata	15	<u> </u>	FACU	4 - Morphological		vide supporting
			UPL	data in Remarks of		
				5 - Wetland Non-	•	
0				Problematic Hydro		n ¹ (Explain)
1.						/—t
Total Cove	er: 140					
Woody Vine Stratum				¹ Indicators of hydric soil an be present, unless disturbe		
			-	I hadaaa haatta		
				Hydrophytic		
·	er: 0					
·			0	Vegetation Present?	Yes	No X

SOIL							Sa	mpling Point:	11
Profile D	Description: (Describe	to the de	pth needed to de	ocument th	e indica	tor or co	nfirm the absence of in	dicators.)	
Depth	Matrix		F	Redox Featu	ıres		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remar	ks
0-2	7.5 YR 4/1	100					SILT LOAM		
2-10	7.5 YR 4/1	85	5 YR 4/4	5	С	PL	SILT LOAM		
			5 YR 4/4	5	С	М			
10-12	10 YR 5/2	75	10 YR 4/4	25	С	М	SILT LOAM		
12-16	7.5 YR 4/1	80	5 YR 4/4	10	С	PL	SILT LOAM		
			10 YR 4/4	10	С	М			
Hist Hist Hist Hyd Dep Thic	Soil Indicators: (Application of the Cool (A1) tic Epipedon (A2) ck Histic (A3) drogen Sulfide (A4) coleted Below Dark Surface (A12) and Muck Mineral (S1) and gleyed Matrix (S4) ive Layer (if present):		Sand Stripp Loam Loam X Deple Redo Deple	y Redox (So bed Matrix (So by Mucky Mi by Gleyed M eted Matrix (x Dark Surfa eted Dark So x Depressio	5) S6) neral (F1 atrix (F2 (F3) ace (F6) urface (F)	Red Other	Muck (A10) Parent Material (TF2) or (Explain in Remarks ordrophytic vegetation blogy must be present) s) and
Type: Depth (in	nches):					н	ydric Soil Present?	Yes X	No
Remarks: S	Soil has been tilled within	the past	3 years						
Wetland	Hydrology Indicators:								
Primary I	Indicators (any one indic	ator is suf	ficient)				Secon	ndary Indicators (2 or	more required)
Sur	face Water (A1)		Wate	r-Stained Le	eaves (B	9) (excep	t Wate	er-Stained Leaves (B9	9) (MLRA 1, 2,
Higl	h Water Table (A2)		ML	.RA 1, 2, 4A	and 4B)	4	A and 4B)	
Sati	uration (A3)		Salt (Crust (B11)			 Draii	nage Patterns (B10)	

Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1, 2, 4A and 4B)	4A and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres along Living	Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Plowed Sc	ils (C6) FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LR	R A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
· · -	X Depth (inches):	
Water table Present? Yes No	X Depth (inches):	Walania Barata Walania
Saturation Present? Yes No _2 (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Present? YesNo X
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspections), if available:
Remarks:		

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling [Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling I	Point:	12
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°	•		Long: 122.77460	6°	_ Datum:	: WGS 84
Soil Map Unit Nam							NWI Classification:	none		
Are climatic / hydro	ologic conditions on the	ne site typical for tl	nis time of y	/ear?	Yes 2	X	No	(If no, explain	ı in Remarks	;)
Are Vegetation	, Soil						Normal Circumstance	es" Present?	Yes X	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	howing	sampling	point loca	ations,	transects, impo	rtant featur	es, etc.	
Hydrophytic Veget	tation Present?	Yes X No								
Hydric Soil Presen					ampled Area a Wetland?	a	Yes X	No		
Wetland Hydrology		Yes X No		Within	a welland?			· -		
Remarks:	,									
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test workshe	at·		
T 0			% Cover		Status?		of Dominant Specie			
	se scientific names.)						e OBL, FACW, or FA		•	(A)
2						Total Ni	umber of Dominant		2	_(A)
2							Across All Strata:		3	(B)
J					· 	·				_(D)
4		Total Cover:	0		· 		of Dominant Specie e OBL, FACW, or F		67%	(A/B)
		Total Gover.				matAn	C OBE, I AOW, OI 17		01 /0	_(/////)
Shrub Stratum						Prevale	ence Index Worksh	eet:		
4							tal % Cover of:		Itiply by:	
2.						OBL sp			0	_
3.						-	species		0	-
4.				-		FAC sp		x3 =	0	_
5.							pecies		0	_
		Total Cover:	0			UPL sp		x5 =	0	_
Herb Stratum						Column	Totals: 0	(A)	0	(B)
1. Anthoxanthum	n odoratum		30	Υ	FACU	Preva	lence Index = B/A =	#DI\	V/0!	_
2. Festuca arund	dinacea		30	Υ	FAC					
3. Ranunculus re	epens		3		FAC	Hydrop	hytic Vegetation In	dicators:		
4. Juncus tenuis			0.1		FAC		1 - Rapid Test for		egetation	
5. Holcus lanatus	S		25		FAC	X	2 - Dominance Tes	_		
6. Trifolium reper	ns		30	Y	FAC	#####	3 - Prevalence Ind			
7. Hypochaeris r			0.1		FACU		4 - Morphological			orting
8. Agrostis capilla			20		FAC		data in Remarks o			
9. <u>Lolium perenn</u>			<u> </u>		FAC		5 - Wetland Non-V			
10. Alopecurus pro			5		FAC		Problematic Hydro	phytic Vegeta	tion' (Explair	n)
11			440.0							
M/	· · · · · · · · · · · · · · · · · · ·	Total Cover:	148.2			1				
Woody Vine S	<u>stratum</u>						ors of hydric soil and ent, unless disturbed			
1					-		•	or problemat	10.	
2		Total Cover:	0			Hydrop	•			
% Ra	re Ground in Herb St			otic Crust	0	Vegetar Present		Yes X	No	
Remarks:	Cround in Ficib Oli			ono orași				. 00 <u>//</u>		
ixciliaixs.										

	escription: (Describe	to the de	pth needed	I to document	the i	indicate	or or co	onfiri	m the a	absence	of indicate	ors.)		
Depth	Matrix			Redox Fe	atures	:S								
(inches)	Color (moist)	%	Color (m	noist) %	-	Type ¹	Loc²	2	Tex	ture		Re	marks	
0-3	10 YR 3/2	100							SILT L					
3-10	10 YR 4/2	87	7.5 YR 4/6		10 C	2	PL	- :	SILT L	OAM				
			10 YR 4/3		3 C	2	М							
10-16	10 YR 6/2	80	7.5 YR 5/6		10 C	2	М		SILT L	OAM				
	_		7.5 YR 4/6		10 C	2	М							
	_													
¹ Type: C=	-Concentration, D=Dep	letion, RN	/I=Reduced	Matrix, CS=Co	vered	d or Co	ated Sa	and G	Grains.	² Locatio	n: PL=Por	e Lining, M=	=Matrix.	
Hydric So	oil Indicators: (Applic	able to a	II LRRs, uni	less otherwis	e note	ed.)			Indicat	tors for P	roblemati	c Hydric So	oils³:	
	osol (A1)			Sandy Redox							2 cm Muck			
	c Epipedon (A2)			Stripped Matri								nt Material (•	
	k Histic (A3)			Loamy Mucky				pt ML	_RA 1)		Other (Exp	olain in Rem	narks)	
	rogen Sulfide (A4)	(044)		Loamy Gleyed										
	eted Below Dark Surfack Dark Surface (A12)	ce (ATT)		Depleted Matr Redox Dark S					31	ndicators	of bydroph	nytic vegetat	tion and	
	dy Muck Mineral (S1)			Depleted Dark			' \					must be pre		
	dy gleyed Matrix (S4)			Redox Depres		,	,					or problema		
	ay g.oyouu (o .)					SIEOI								
Restrictive	e Layer (if present):			Trodox Boproc	510115	S (FO)				uilless	disturbed	or probleme		
	e Layer (if present):			Trodox Boproc	510115	S (FO)				uness	disturbed	or probleme		
Type: Depth (inc		n the past		Товох Воргос	510115	S (FO)		Hydr	ric Soil	Present ²		Yes X		No
Type:	ches):		3 years fficient)	Water-Stained MLRA 1, 2, Salt Crust (B1 Aquatic Inverted	Leav 4A ar 11) ebrate	ves (B9 and 4B) es (B13) (exce	ept		Present ²	Secondary Water-Stai 4A and Drainage F Dry-Seaso Saturation	Indicators (2 ined Leaves I 4B) Patterns (B1 on Water Ta	s (B9) (N 10) able (C2) Aerial Im	e required)
Type: Depth (inc) Remarks: Score HYDROLOG Wetland F Primary Inc Surfa X High Satur Wate Sedir Drift I Algal Iron I Surfa	ches): Dil has been tilled within GY Hydrology Indicators: Idicators (any one indicators (any one indicators (any one indicators (ace Water (A1)) Water Table (A2) Iration (A3) Der Marks (B1)	ator is su	3 years fficient) (B7)	Water-Stainec MLRA 1, 2, Salt Crust (B1 Aquatic Invert	Leav 4A ai 1) ebrate ide O osphe educt educt	ves (B9 and 4B) es (B13 Odor (C1 eres alo ed Iron tion in P) (exce) l) ng Livii (C4) llowed :	ng Ro	oots (C		Secondary Water-Stai 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neutr Raised An	Yes X Indicators (2 ined Leaves 14B) Patterns (B1 on Water Ta	s (B9) (N 10) able (C2) Aerial Im (D2) b) 5) C6) (LRF	e required) ILRA 1, 2, agery (C9)

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty			Sampling	Date:	5/28/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State:	WA	Sampling	Point:	13
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T41	N, R1W			
Landform (hillslope		Floodplain		_			-				
	Northwest Forests a) Lat:	45.850967°))°	_ Datum	: WGS 84
Soil Map Unit Nam								ssification:			
	ologic conditions on th				_		_		(If no, explain		
Are Vegetation	, Soil										_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No)								
Hydric Soil Presen	t?)		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrology	y Present?)	WILLIIII	a vvetianu:		-				
Remarks:											
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshee	t:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?			nant Specie			
1						That Are	e OBL, F.	ACW, or FA	·C:	2	_(A)
2								Dominant			
3.						Species	Across A	All Strata:		3	_(B)
4						Percent	of Domii	nant Specie	s		
		Total Cover:	0			That Are	OBL, F	ACW, or FA	.C:	67%	_(A/B)
Shrub Stratum 1.								ex Workshe		ltink by	
2.					· ———		al % Cov	vei oi.		Itiply by: 0	_
3.							-		x2 =	0	_
4.					· ——	FAC spe	-		x3 =	0	_
5.							-		x4 =	0	
		Total Cover:	0			UPL spe	_		x5 =	0	_
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Anthoxanthum	n odoratum		30	Υ	FACU		·-	lex = B/A =		V/0!	
2. Trifolium prate	ense		5		FACU						_
3. Ranunculus re	epens		5		FAC	Hydrop	hytic Ve	getation In	dicators:		
4. Lotus cornicula	atus		10		FAC		1 - Rap	id Test for H	Hydrophytic V	egetation	
5. Holcus lanatus	S		25	<u>Y</u>	FAC	X	2 - Don	ninance Tes	t is >50%		
6. Trifolium reper	ns		10		FAC	#####	3 - Prev	alence Inde	exis ≤3.0 ¹		
7. <u>Hypochaeris ra</u>			0.1		FACU			_	daptation1 (F		orting
8. Agrostis capilla			20	<u>Y</u>	FAC				on a separat		
9. Alopecurus pr	atensis		10		FAC				ascular Plants		
							Problen	natic Hydro	ohytic Vegeta	tion' (Explai	n)
11											
		Total Cover:	115.1			1					
Woody Vine S	<u>tratum</u>								wetland hydr or problemat		
1.						be prese	ent, unites	ss disturbed	or problema		
2		Total Cover:	0			Hydrop	-				
% Pa	re Ground in Herb St			otic Crust	0	Vegetat Present			Yes X	No	
	.c Ground in Field St	<u> </u>	OUVEL OF DI	ono Orubi		i reseill	•		169 //	_ 110	
Remarks:											

								Samplir	ng Point:	
rofile De	escription: (Describe	to the de	pth needed to	document th	e indica	tor or co	onfirm the ab	sence of indicat	ors.)	
epth	Matrix			Redox Featu	ıres					
inches)	Color (moist)	%	Color (mois	t) %	Type ¹	Loc ²	Textu	ıre	Remarks	i
-3	10 YR 3/2	80	7.5 YR 5/8	10	С	М	SILT LO	AM		
	_		5 YR 4/6	10	С	PL				
-7	10 YR 5/2	68	10 YR 5/6	25	С	М	SILT LO	AM		
			10 YR 5/6	5	С	PL	SILT LO	AM		
			10 YR 6/2	2		M				
<u>'-16</u>	10 YR 5/1	68	7.5 YR 5/4	30	С	M	SILT LO	<u> </u>		
	<u> </u>		10 YR 6/1	2	D	M				
F C-	 =Concentration, D=Dep	leties D	4-Dadwaad Mar	hrite CC-Cause			nd Craina 2	Lagation: DL-Da	ro Lining M-Matri	
ype: C	=Concentration, D=Dep	netion, Ri	vi=Reduced ivia	ırıx, CS=Cove	red or Co	bated Sa	na Grains.	Location: PL=Po	re Lining, M=Matri	х.
ydric So	oil Indicators: (Applic	able to a	II LRRs, unless	s otherwise n	oted.)		Indicato	rs for Problemat	ic Hydric Soils ³ :	
-	osol (A1)			ndy Redox (S				2 cm Muc	k (A10)	
Histi	ic Epipedon (A2)			ipped Matrix (Red Pare	nt Material (TF2)	
Blac	k Histic (A3)		Loa	amy Mucky Mi	neral (F1) (excep	t MLRA 1)	Other (Ex	plain in Remarks)	
Hydr	rogen Sulfide (A4)		Loa	amy Gleyed M	atrix (F2)				
Depl	leted Below Dark Surfa	ce (A11)	De	pleted Matrix ((F3)					
Thic	k Dark Surface (A12)		Re	dox Dark Surf	ace (F6)		³ Inc	dicators of hydrop	hytic vegetation an	nd
Sand	dy Muck Mineral (S1)		De	pleted Dark Si	urface (F	7)	V	vetland hydrology	must be present,	
Sand	dy gleyed Matrix (S4)		Re	dox Depressio	ns (F8)			unless disturbed	or problematic.	
estrictiv	ve Layer (if present):									
ype:										
epth (inc	ches):					ı	Hydric Soil P	resent?	Yes X	No
	ches): oil has been tilled within	n the past	3 years			ı	Hydric Soil P	resent?	Yes X	No
		n the past	3 years			I	Hydric Soil P	resent?	Yes X	No
		n the past	3 years			1	Hydric Soil P	resent?	Yes X	No
		n the past	3 years				Hydric Soil P	resent?	Yes X	No
marks: S	oil has been tilled within	n the past	3 years			ł	Hydric Soil P	resent?	Yes X	No
marks: S	oil has been tilled within		3 years				Hydric Soil P	resent?	Yes X	No
DROLOG	oil has been tilled within GY Hydrology Indicators:						Hydric Soil P			
DROLOG Vetland I	oil has been tilled within GY Hydrology Indicators: ndicators (any one indic		fficient)	uter-Stained I (paves (R			Secondary	Indicators (2 or mo	ore require
DROLOG Vetland I	GY Hydrology Indicators: adicators (any one indicate Water (A1)		fficient) Wa	nter-Stained Le		9) (exce		Secondary Water-Sta	Indicators (2 or mained Leaves (B9)	ore require
DROLOG Vetland I	GY Hydrology Indicators: ace Water (A1) Water Table (A2)		fficient) Wa	MLRA 1, 2, 4 <i>A</i>		9) (exce		Secondary Water-Sta	Indicators (2 or monained Leaves (B9)	ore require
DROLOG Vetland I rrimary Ir Surfa	GY Hydrology Indicators: adicators (any one indicate Water (A1) a Water Table (A2) arration (A3)		fficient) Wa Sal	MLRA 1, 2, 4 <i>A</i> t Crust (B11)	and 4B	9) (exce		Secondary Water-Sta 4A and Drainage	Indicators (2 or monained Leaves (B9) d 4B) Patterns (B10)	ore require
DROLOG Vetland I rimary Ir Surfa High Satu Wate	GY Hydrology Indicators: adicators (any one indicator (A1) Water Table (A2) uration (A3) er Marks (B1)		fficient) Wa Sal Aqı	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr	and 4B	9) (excel)		Secondary Water-Sta 4A and Drainage Dry-Seaso	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1, 2
DROLOG Vetland I Primary In Surfa High Satu Wate Sedi	GY Hydrology Indicators: ace Water (A1) Water Table (A2) Water Marks (B1) Winnert Deposits (B2)		fficient) — Wa I — Sal — Aqı — Hyo	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide	and 4B rates (B13 Odor (C	(except) (except) (33)	pt	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation	Indicators (2 or monimed Leaves (B9) d 4B) Patterns (B10) on Water Table (C	ore require (MLRA 1, 2
DROLOG Vetland I rimary Ir Surfa High Satu Wate Sedi Drift	GY Hydrology Indicators: adicators (any one indicators (A1) a Water Table (A2) aration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3)		fficient) — Wa I — Sal — Aqu — Hyu — Oxi	MLRA 1, 2, 4 <i>A</i> t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp	and 4B rates (B13 Odor (Coheres al	(except) (ex	pt	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpi	Indicators (2 or meained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial Indice Position (D2)	ore require (MLRA 1, 2
DROLOG Vetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga	GY Hydrology Indicators: adicators (any one indicators (Any one indicators) ace Water (A1) a Water Table (A2) aration (A3) er Marks (B1) iment Deposits (B2) Deposits (B3) al Mat or Crust (B4)		fficient) Wa I Sal Aqı Hyu Oxi Pre	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red	ates (B1: Odor (Cobheres alouced Iron	9) (except) 3) 1) 2) pong Livir	pt ng Roots (C3)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A	Indicators (2 or molained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3)	ore require (MLRA 1, 2
DROLOG Vetland I Surfa Surfa Satu Wata Sedi Drift Alga Iron	GY Hydrology Indicators: adicators (any one indicator (A1) a Water Table (A2) aration (A3) er Marks (B1) ament Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5)		fficient) — Wa I — Sal — Aqı — Hyo — Oxi — Pre — Re	MLRA 1, 2, 44 t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Red	and 4B rates (B13 Odor (Cobheres alouced Iron ruction in I	9) (excel) 3) 1) pong Livir n (C4) Plowed \$	pt ng Roots (C3) Soils (C6)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or monimed Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial Indice Position (D2) equitard (D3) tral Test (D5)	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I Surfa Satu Sedi Drift Alga Iron Surfa	GY Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators) ace Water (A1) a Water Table (A2) aration (A3) arer Marks (B1) aiment Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	eator is su	fficient) Wa Sal Aqu Hyu Oxi Pre Ree Stu	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Redunted or Stress	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3) tral Test (D5) on Maine (D6) (Li	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I rimary Ir Surfa Satu Vate Sedi Drift Alga Iron Surfa	GY Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A3)) arration (A3) arration (A3) arration (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su	fficient) — Wa	MLRA 1, 2, 44 t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Red	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or monimed Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial Indice Position (D2) equitard (D3) tral Test (D5)	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun	GY Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicator (A3)) artion (A3) artion (A3) are Marks (B1) arent Deposits (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial arsely Vegetated Concaver	ator is su	fficient) — Wa	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Redunted or Stress	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3) tral Test (D5) on Maine (D6) (Li	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun Spar	GY Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (any one indicators (A3)) arration (A3) arration (A3) arration (B2) Deposits (B3) al Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial	ator is su Imagery	fficient) — Wa I — Sal — Aqı — Hyo — Oxi — Pre — Rei — Stu (B7) — Other	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Redunted or Stress	and 4B ates (B13 Odor (Coheres ald uced Iror uction in I sed Plant Remarks	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or mained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial hic Position (D2) equitard (D3) tral Test (D5) on Maine (D6) (Li	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I Primary Ir Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun Spar	GY Hydrology Indicators: adicators (any one indicators (any one in	Imagery ve Surfaces s X	fficient) — Wa I — Sal — Aqı — Hyo — Oxi — Pre — Reı — Stu — Otr e (B8) No X E No — C	wilka 1, 2, 44 t Crust (B11) uatic Invertebre drogen Sulfide idized Rhizosp esence of Red cent Iron Redu unted or Stress her (Explain in	and 4B rates (B13 rate	9) (exce) 1) 3) 1) 2) (C4) 2) (O4) 3) (D1) (L3)	pt ng Roots (C3) Soils (C6) LRR A)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur Raised Ar Frost-Hea	Indicators (2 or monained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial Indice Position (D2) Aquitard (D3) tral Test (D5) ont Mounds (D6) (L1) ave Hummocks (D6)	ore require (MLRA 1, 2 2) Imagery (C
DROLOG Vetland I rimary Iri Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inun Spar ield Obs urface W Vater tab aturatior	GY Hydrology Indicators: adicators (any one indicators (any one in	lmagery	fficient) — Wa I — Sal — Aqı — Hyo — Oxi — Pre — Reı — Stu — Otr e (B8) No X E No — C	MLRA 1, 2, 4A t Crust (B11) uatic Invertebr drogen Sulfide idized Rhizosp esence of Red cent Iron Redu unted or Stress her (Explain in	and 4B rates (B13 rate	9) (exce) 1) 3) 1) 2) (C4) 2) Plowed S 3 (D1) (L 3)	pt ng Roots (C3) Soils (C6) LRR A)	Secondary Water-Sta 4A and Drainage Dry-Sease Saturation Geomorpl Shallow A FAC-Neur	Indicators (2 or monained Leaves (B9) d 4B) Patterns (B10) on Water Table (Con Visible on Aerial Indice Position (D2) Aquitard (D3) tral Test (D5) ont Mounds (D6) (L1) ave Hummocks (D6)	ore require (MLRA 1, 2) Imagery (C

Project/Site: Plas Newydd Farm- Lancaster Lake S	Stud Area	City/County:	Clark Cou	nty	Sampling Date:	5/28/201
Applicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling Point:	
vestigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S1, T4N, R1W		
andform (hillslope, terrace, etc.): Floodplain		_ Local re	elief (concav	e, convex, none): none	Slope	e (%): <u>0-1%</u>
ubregion (LRR): Northwest Forests and Coast (LRR A	<u>.)</u> Lat:	45.850967°)	Long: 122.774606	3° C	atum: WGS 84
oil Map Unit Name: Sauvie silt loam				NWI Classification:	none	
re climatic / hydrologic conditions on the site typical for t	•		Yes		(If no, explain in Re	
re Vegetation, Soil, or Hydrology				Are "Normal Circumstance	es" Present? Yes	XNo
re Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site map				(If needed, explain any an		
<u>·</u>			point look		- tunt reatures, c	
lydrophytic Vegetation Present? Yes No		Is the Sa	ampled Are	a Yes	No X	
Hydric Soil Present? Yes X No		within a	a Wetland?		NO X	
Vetland Hydrology Present? YesNotested Semarks: Plot is located in levee protected floodplain of the second						
olonization by non-seeded species. Plot does not suppo	rt hydrophyt	ic plants or f	feature hydr	ological indicators.		
LOCIATION	Absolute	Dominant	Indicator	Dominance Test workshee	 et:	
ree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Specie		
. (Osc scientific frames.)				That Are OBL, FACW, or FA	AC: 0	(A)
·				Total Number of Dominant		(/ (/
·				Species Across All Strata:	1	(B)
·			· 	Dorsont of Dominant Specie	-	(2)
Total Cover:	: 0			Percent of Dominant Specie That Are OBL, FACW, or FA		(A/B)
Shrub Stratum				Prevalence Index Worksho	eet:	
				Total % Cover of:	Multiply by	y:
				OBL species	x1 = 0	
•				FACW species	x2 = 0	
·				FAC species	x3 = 0	
				FACU species	x4 = 0	
Total Cover:	:0			UPL species	x5 = 0	
lerb Stratum				Column Totals: 0	(A) 0	(B)
Anthoxanthum odoratum	45	Y	FACU	Prevalence Index = B/A =	#DIV/0!	
Festuca arundinacea	15		FAC			
Ranunculus repens	10		FACU	Hydrophytic Vegetation In		
Di i i i i						ion
	15	•		1 - Rapid Test for I		
Holcus lanatus	10		FAC	2 - Dominance Tes	st is >50%	
Holcus lanatus Trifolium repens	10		FAC FAC	2 - Dominance Tes	st is >50% ex is ≤3.0 ¹	
Holcus lanatus Trifolium repens Leucanthemum vulgare	10 5 10		FAC FACU	2 - Dominance Tes ##### 3 - Prevalence Indo 4 - Morphological A	st is >50% ex is ≤3.0 ¹ Adaptation1 (Provide	e supporting
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of	st is >50% ex is ≤3.0 ¹ Adaptation1 (Provide r on a separate shee	e supporting
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V	st is >50% ex is ≤3.0¹ Adaptation1 (Provide r on a separate shee ascular Plants¹	e supporting
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V	st is >50% ex is ≤3.0 ¹ Adaptation1 (Provide r on a separate shee	e supporting
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V	st is >50% ex is ≤3.0¹ Adaptation1 (Provide r on a separate shee ascular Plants¹	e supporting
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus Total Covers Woody Vine Stratum	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V	st is >50% ex is ≤3.0¹ Adaptation1 (Provider on a separate sheet ascular Plants¹ phytic Vegetation¹ (I	e supporting et) Explain)
Holcus lanatus Trifolium repens Leucanthemum vulgare Lotus corniculatus O. Total Covers Woody Vine Stratum	10 5 10 5		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V Problematic Hydro 1 Indicators of hydric soil and be present, unless disturbed	st is >50% ex is ≤3.0¹ Adaptation1 (Provider on a separate sheet ascular Plants¹ phytic Vegetation¹ (I	e supporting et) Explain)
. Holcus lanatus . Trifolium repens . Leucanthemum vulgare . Lotus corniculatus	10 5 10 5 : 115		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V Problematic Hydro Indicators of hydric soil and be present, unless disturbed Hydrophytic	st is >50% ex is ≤3.0¹ Adaptation1 (Provider on a separate sheet ascular Plants¹ phytic Vegetation¹ (I	e supporting et) Explain)
. Holcus lanatus . Trifolium repens . Leucanthemum vulgare . Lotus corniculatus	10 5 10 5 : 115		FAC FACU FACU	2 - Dominance Tes ##### 3 - Prevalence Inde 4 - Morphological A data in Remarks of 5 - Wetland Non-V Problematic Hydro Indicators of hydric soil and be present, unless disturbed Hydrophytic Vegetation	st is >50% ex is ≤3.0¹ Adaptation1 (Provider on a separate sheet ascular Plants¹ phytic Vegetation¹ (I	e supporting et) Explain)

OIL								Sampling Point:	14
Profile D	Description: (Describe	to the de	epth needed to	document th	ne indica	or or co	nfirm the absence	e of indicators.)	
Depth	Matrix			Redox Featu	ures		_		
(inches)	Color (moist)	%	Color (moist)) %	Type ¹	Loc ²	Texture	Re	emarks
0-3	7.5 YR 4/1	95	5 YR 4/4	5	С	М	SILT LOAM		
3-10	7.5 YR 4/1	85	5 YR 4/4	10	С	PL	SILT LOAM		
			5 YR 4/4	5	С	М			
10-12	10 YR 5/2	85	10 YR 4/4	15	С	М	SILT LOAM		
12-16	7.5 YR 4/1	75	5 YR 4/4	20	С	М	SILT LOAM		
			10 YR 6/1	5	D	М			
							_	-	
¹ Type: C	C=Concentration, D=Dep	pletion, R	M=Reduced Matr	rix, CS=Cove	ered or Co	ated San	d Grains. ² Locati	ion: PL=Pore Lining, M=	=Matrix.
Hydric S	Soil Indicators: (Applic	cable to a	II LRRs, unless	otherwise r	noted.)		Indicators for	Problematic Hydric So	oils³:
His	tosol (A1)		San	dy Redox (S	5)			2 cm Muck (A10)	
His	tic Epipedon (A2)		Strip	ped Matrix (S6)			Red Parent Material (TF2)
Bla	ck Histic (A3)		Loar	my Mucky Mi	ineral (F1) (except	MLRA 1)	Other (Explain in Rem	narks)
Hyd	drogen Sulfide (A4)		Loar	my Gleyed M	latrix (F2)			
 De _l	oleted Below Dark Surfa	ace (A11)	X Dep	leted Matrix	(F3)				
Thi	ck Dark Surface (A12)		Red	ox Dark Surf	ace (F6)		³ Indicato	rs of hydrophytic vegeta	tion and
	ndy Muck Mineral (S1)			leted Dark S		7)		d hydrology must be pre	
	ndy gleyed Matrix (S4)			ox Depression		,		ss disturbed or problema	
Restrict	ive Layer (if present):				5.10 (1 0)		unice		
Туре:					3110 (1°0)	Н		·	
Type: Depth (ir		n the past	3 years		5.10 (1.0)	н	ydric Soil Presen	·	
Type: Depth (ir emarks: \$	nches):		3 years		5.10 (1.0)	н		·	
Type: Depth (ir emarks: \$ YDROLO Wetland	oches): Soil has been tilled withing the second se	:			, i.e. (i. e)	н		nt? Yes X	No
Type: Depth (ir emarks: \$ YDROLO Wetland Primary	oches): Soil has been tilled withing the second se	:	fficient)				ydric Soil Presen	Yes X Secondary Indicators (2)	No
Type: Depth (ir emarks: \$\frac{\text{YDROLO}}{\text{Wetland}} \text{Primary} \text{Sur}	DGY Hydrology Indicators Indicators (any one indicator (A1)	:	fficient) Wat	er-Stained Le	eaves (B	excep)	ydric Soil Presen	Secondary Indicators (2) Water-Stained Leaves	No
Type: Depth (ir emarks: \$ YDROLO Wetland Primary Sur Hig	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2)	:	fficient) Wat M	er-Stained Lo	eaves (B	excep)	ydric Soil Presen	Secondary Indicators (2 Water-Stained Leaves 4A and 4B)	No
Type: Depth (ir emarks: \$ YDROLO Wetland Primary Sui Hig Sat	OGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3)	:	fficient) Wat M Salt	er-Stained Le ILRA 1, 2, 4A Crust (B11)	eaves (BS	9) (excep	ydric Soil Presen	Secondary Indicators (2 Water-Stained Leaves 4A and 4B) Drainage Patterns (B*	No
Type: Depth (ir emarks: \$\footnote{YDROLO}{VPROLO}{Vetland Primary}{Value High Sat Wa	OGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) tter Marks (B1)	:	fficient) Wat Salt Aqu	er-Stained Lo ILRA 1, 2, 4,4 Crust (B11) atic Inverteb	eaves (Bs	9) (excep)	ydric Soil Presen	Secondary Indicators (2 Water-Stained Leaves 4A and 4B) Drainage Patterns (B ² Dry-Season Water Ta	No
YDROLO Wetland Primary Sur Hig Sat Wa See	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) tter Marks (B1) diment Deposits (B2)	:	fficient) Wat Salt Aqu Hyd	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Inverteborogen Sulfide	eaves (BS A and 4B rates (B1)	9) (excep) 3) 1)	ydric Soil Presen	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B' Dry-Season Water Ta	No
YDROLO Wetland Primary Sui Hig Sat Wa Sec Drit	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) it Deposits (B3)	:	fficient) Wat Salt Aqu Hyd Oxice	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebr rogen Sulfide dized Rhizos	eaves (BS A and 4B rates (B1: e Odor (Copheres al	9) (excep) 3) 1) png Living	ydric Soil Presen	Secondary Indicators (2 Water-Stained Leaves 4A and 4B) Drainage Patterns (B2 Dry-Season Water Ta Saturation Visible on A Geomorphic Position	No
YDROLO Wetland Primary Sul Hig Sat Wa See Drift	OGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) ft Deposits (B3) al Mat or Crust (B4)	:	fficient) Wat Salt Aqu Hyd Oxic Pres	er-Stained Le ILRA 1, 2, 4A Crust (B11) atic Invertebi rogen Sulfide dized Rhizosp sence of Red	eaves (BS A and 4B rates (B1: e Odor (Copheres all	9) (excep) 3) 1) ong Living	ydric Soil Presen	Secondary Indicators (2 Water-Stained Leaves 4A and 4B) Drainage Patterns (B' Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3)	No
YDROLO Wetland Primary Sul Hig Sat Wa Sec Drit Alg	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) tter Marks (B1) diment Deposits (B2) it Deposits (B3) al Mat or Crust (B4) in Deposits (B5)	:	fficient) Wat Salt Aqu Hyd Oxic Pres Rec	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide dized Rhizosp sence of Red ent Iron Red	eaves (BSA and 4B) rates (B1SE) e Odor (Copheres alcount of the control of the co	(C4)	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5)	No
YDROLO Wetland Primary Sul Hig Sat Wa See Drift Alg Iror Sul	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) tter Marks (B1) diment Deposits (B2) if Deposits (B3) al Mat or Crust (B4) in Deposits (B5) ifface Soil Cracks (B6)	: cator is su	fficient) Wat M Salt Aqu Hyd Oxic Pres Rec Stur	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide dized Rhizosp sence of Red ent Iron Red inted or Stress	eaves (BS) A and 4B rates (B1) e Odor (Copheres alluced Iror uction in losed Plant	P) (excep) 3) 1) ong Living i (C4) Plowed Sos (D1) (LI	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (I	No No No No No No No No No No No No No N
Type: Depth (ir	DGY Hydrology Indicators Indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) if Deposits (B3) al Mat or Crust (B4) in Deposits (B5) face Soil Cracks (B6) indation Visible on Aeria	: cator is su	fficient) Wat Salt Aqu Hyd Oxic Pres Rec Stur (B7) Other	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide dized Rhizosp sence of Red ent Iron Red	eaves (BS) A and 4B rates (B1) e Odor (Copheres alluced Iror uction in losed Plant	P) (excep) 3) 1) ong Living i (C4) Plowed Sos (D1) (LI	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5)	No No No No No No No No No No No No No N
Type: Depth (ir emarks: \$\frac{\text{YDROLO}}{\text{Wetland}} \text{Primary} \text{Sat} \text{Wa} \text{Sec} \text{Drift} \text{Alg} \text{Iror} \text{Sun} \text{Inu} \text{Spat}	DGY Hydrology Indicators Indicators (any one indicators (any one indicators (A1) h Water Table (A2) uration (A3) tter Marks (B1) diment Deposits (B2) it Deposits (B3) al Mat or Crust (B4) in Deposits (B5) face Soil Cracks (B6) indation Visible on Aeria arsely Vegetated Conca	: cator is su	fficient) Wat Salt Aqu Hyd Oxic Pres Rec Stur (B7) Other	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide dized Rhizosp sence of Red ent Iron Red inted or Stress	eaves (BS) A and 4B rates (B1) e Odor (Copheres alluced Iror uction in losed Plant	P) (excep) 3) 1) ong Living i (C4) Plowed Sos (D1) (LI	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (I	No No No No No No No No No No No No No N
Type: Depth (ir emarks: \$\frac{\text{YDROLO}}{\text{Wetland}} \text{Primary} & \text{Sur} & \text{Alg} & \text{Iror} & \text{Alg} & \text{Iror} & \text{Sur} & \text{Iror} &	DGY Hydrology Indicators Indicators (any one indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) it Deposits (B3) al Mat or Crust (B4) in Deposits (B5) face Soil Cracks (B6) indation Visible on Aeria arsely Vegetated Concauservations:	: cator is su I Imagery ve Surfac	fficient) Wat Salt Aqu Hyd Oxic Pres Rec Stur (B7) Othe e (B8)	er-Stained Lo ILRA 1, 2, 4A Crust (B11) atic Invertebi rogen Sulfide dized Rhizosi sence of Red ent Iron Red inted or Stress er (Explain in	eaves (BS) A and 4B rates (B1) e Odor (Copheres all luced Iror uction in losed Plant Remarks	P) (excep) 3) 1) ong Living i (C4) Plowed Sos (D1) (LI	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (I	No No No No No No No No No No No No No N
Type: Depth (in	DGY Hydrology Indicators Indicators (any one indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) if Deposits (B3) al Mat or Crust (B4) in Deposits (B5) face Soil Cracks (B6) indation Visible on Aeria arsely Vegetated Concauservations: Water Present? Yes	: cator is su I Imagery ve Surfac	fficient) Wat Salt Aqu Hyd Oxic Pres Rec Stur (B7) Othe e (B8)	er-Stained Lo ILRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide dized Rhizosp sence of Red ent Iron Red inted or Stress	eaves (BS) A and 4B rates (B1) e Odor (Copheres all luced Iror uction in losed Plant Remarks	P) (excep) 3) 1) ong Living i (C4) Plowed Sos (D1) (LI	t	Secondary Indicators (2) Water-Stained Leaves 4A and 4B) Drainage Patterns (B2) Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (I	No No No No No No No No No No No No No N
Type: Depth (in person of the	DGY Hydrology Indicators Indicators (any one indicators (any one indicators (A1) h Water Table (A2) uration (A3) ter Marks (B1) diment Deposits (B2) if Deposits (B3) al Mat or Crust (B4) in Deposits (B5) face Soil Cracks (B6) indation Visible on Aeria arsely Vegetated Concauservations: Water Present? Yes	: cator is su I Imagery ve Surfaces s	fficient) — Wat M — Salt — Aqu — Hyd — Oxic — Pres — Rec — Stur (B7) — Othe e (B8) No X Do	er-Stained Lo ILRA 1, 2, 4A Crust (B11) atic Invertebi rogen Sulfide dized Rhizosi sence of Red ent Iron Red inted or Stress er (Explain in	eaves (BS) A and 4B rates (B1) e Odor (Copheres ald luced Iror uction in losed Plant Remarks	9) (excep) 1) ong Living i (C4) Plowed So s (D1) (LI	t	Secondary Indicators (2 Water-Stained Leaves 4A and 4B) Drainage Patterns (B' Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3) FAC-Neutral Test (D5 Raised Ant Mounds (I Frost-Heave Hummor	No

Remarks: Water table lies below depth criteria for wetland hydrology.

Project/Site:	Plas Newydd Farm	ı- Lancaster Lake S	tud Area	City/County:	Clark Coul	nty		_ Sampling D)ate:	6/19/2014
Applicant/Owner:	Plas Newydd Farm	ı, LLC					State: WA	Sampling F	oint:	15
nvestigator(s):	B. Haddaway, T.St	cout		Section	n, Township	, Range:	S1, T4N, R1W			
_andform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex,	none): none		Slope (%)	: 0-1%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°	•		Long: 122.77460	6°	Datum	n: WGS 84
Soil Map Unit Nam	e: Sauvie silty	clay loam	_				IWI Classification:	PEMC	-	
Are climatic / hydro	ologic conditions on	the site typical for th	nis time of y	/ear?	Yes	X	No	(If no, explain	in Remark	s)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "No	ormal Circumstanc	es" Present?	Yes X	No
Are Vegetation		, or Hydrology					led, explain any ar			
SUMMARY OF	FINDINGS - At	tach site map s	howing	sampling	point loca	ations, tr	ansects, impo	rtant featur	es, etc.	
-lydrophytic Vegeta	ation Present?	Yes No	X	la tha C		_				
Hydric Soil Present	t?	Yes X No			ampled Are a Wetland?		Yes	No X		
Netland Hydrology	/ Present?	Yes No	Х	Within	a Welland.					
Remarks: Plot is lo	cated in levee prote	cted floodplain of th	ne Lewis ar	d Columbia	Rivers in ar	historicall	v tilled and seeded	pasture (withi	n 3 vears).	Due to
	of soil and vegetatin-seeded species. P									
VEGETATION			Absolute	Dominant	Indicator	Dominar	ice Test workshe	et:		
Froe Stratum (11s	se scientific names.)		% Cover	Species?	Status?		of Dominant Speci			
1.	se scientific frames.)				·		OBL, FACW, or F		1	(A)
`					· 	Total Nur	mber of Dominant			_(^)
3.					· 		Across All Strata:		2	(B)
4.						Porcont c	of Dominant Specie			_(=)
		Total Cover:	0				of Dominant Specie OBL, FACW, or F		50%	(A/B)
2			0 	Y	FACU	Tota OBL spec FACW sp FAC spec FACU spec UPL spec Column T	pecies cies cies	x1 = x2 = x3 = x4 = x5 = (A)	tiply by: 0 0 0 0 0 0 0	(B)
3. Agrostis capilla	aris		20	Υ	FAC	Hydroph	ytic Vegetation In	dicators:		
1. Plantago lance	eolata		5		FACU		1 - Rapid Test for	Hydrophytic Ve	getation	
5. <u>Holcus lanatus</u>	8		15		FAC		2 - Dominance Te			
6. Trifolium reper	าร		5		FAC	#####	3 - Prevalence Ind	ex is ≤3.0 ¹		
7. Alopecurus pra	atensis		10		FAC		4 - Morphological			porting
3							data in Remarks o	•		
							5 - Wetland Non-V			
							Problematic Hydro	phytic Vegetat	ion¹ (Expla	ıin)
11										
		Total Cover:	105.1							
	<u>tratum</u>									
1 2.							,	. s. p.obiomati		
		Total Cover	0		·		•			
% Bai	re Ground in Herb S	•			0	Present?		Yes	No X	
									<u> </u>	
Woody Vine St 1		Total Cover:	105.1			be preser Hydrophy Vegetation	on		ic.	

OIL								Sampling Point:	1
Profile Do	escription: (Describe	to the de	pth needed to do	cument th	e indicat	or or con	firm the absenc	e of indicators.)	
Depth	Matrix		Re	edox Featu			<u> </u>		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Ren	narks
0-4	10 YR 3/2	100					SILT LOAM		
4-12	10 YR 4/2	85	10 YR 4/6	10	С	M	SILT LOAM		
			10 YR 5/2	5	D	M			
12-16	10 YR 5/2	85	10 YR 6/2	5	D	M	SILT LOAM	_	
	_		10 YR 4/6	15	С	M			
	_								
¹ Type: C:	=Concentration, D=Dep	letion, RN	M=Reduced Matrix,	CS=Cove	red or Co	ated San	d Grains. ² Locat	ion: PL=Pore Lining, M=	Matrix.
Hydric So	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicators for	Problematic Hydric So	ils ³ :
Histo	osol (A1)		Sandy	Redox (S	5)			2 cm Muck (A10)	
Histi	ic Epipedon (A2)		Strippe	ed Matrix (S6)			Red Parent Material (T	F2)
Blac	ck Histic (A3)		Loamy	Mucky Mi	neral (F1)	(except	MLRA 1)	Other (Explain in Rema	arks)
Hydi	rogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2)	1			
X Dep	leted Below Dark Surface	ce (A11)	Deplet	ed Matrix ((F3)				
Thic	k Dark Surface (A12)			Dark Surfa	. ,		³ Indicato	rs of hydrophytic vegetati	on and
San	dy Muck Mineral (S1)		Deplet	ed Dark Si	urface (F7	')	wetlan	d hydrology must be pres	sent,
San	dy gleyed Matrix (S4)		Redox	Depression	ns (F8)		unle	ss disturbed or problemat	ic.
Restrictiv	ve Layer (if present):								
Туре:									
Depth (inc	ches):					Hy	dric Soil Preser	nt? Yes X	No
emarks: S	oil has been tilled withir	the past	3 years						
YDROLO	GY								
Wetland	Hydrology Indicators:								
Primary Ir	ndicators (any one indic	ator is su	fficient)					Secondary Indicators (2	or more required)
Surf	ace Water (A1)		Water-	Stained Le	eaves (B9) (except		Water-Stained Leaves	(B9) (MLRA 1, 2,
High	n Water Table (A2)		MLF	RA 1, 2, 4A	and 4B)			4A and 4B)	
Satu	uration (A3)		Salt Cr	rust (B11)				Drainage Patterns (B10	0)
Wat	er Marks (B1)		Aquation	c Invertebr	ates (B13	5)		Dry-Season Water Tab	ole (C2)
	iment Deposits (B2)		Hydrog	gen Sulfide	Odor (C	1)		Saturation Visible on A	erial Imagery (C9)
Sedi								Geomorphic Position (I	721
	Deposits (B3)		Oxidize	ed Rhizosp	heres ald	ng Living	Roots (C3)	_ Geomorphic Position (i	JZ)
Drift Alga	al Mat or Crust (B4)		Preser	ice of Red	uced Iron	(C4)		Shallow Aquitard (D3)	•
Drift Alga Iron	al Mat or Crust (B4) Deposits (B5)		Preser Recen	nce of Red t Iron Redu	uced Iron uction in F	(C4) Plowed So	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5)	,
Drift Alga Iron Surf	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6)		Preser Recent	nce of Red t Iron Redu d or Stress	uced Iron uction in F sed Plants	(C4) Plowed So (D1) (LF	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	6) (LRR A)
Drift Alga Iron Surf	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6) Indation Visible on Aerial		Preser Recen Stunte (B7) Other (nce of Red t Iron Redu	uced Iron uction in F sed Plants	(C4) Plowed So (D1) (LF	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5)	6) (LRR A)
Drift Alga Iron Surf	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6)		Preser Recen Stunte (B7) Other (nce of Red t Iron Redu d or Stress	uced Iron uction in F sed Plants	(C4) Plowed So (D1) (LF	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	6) (LRR A)
Drift Alga Iron Surf Inun Spar	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6) Idation Visible on Aerial Irsely Vegetated Concaveservations:	e Surfac	Preser Recen: Stunter (B7) Other (e (B8)	nce of Red t Iron Redu d or Stress Explain in	uced Iron uction in F sed Plants Remarks	(C4) Plowed So (D1) (LF	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	6) (LRR A)
Drift Alga Iron Surf Inun Spa Field Obs	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6) Idation Visible on Aerial Irsely Vegetated Concaverservations: Vater Present? Yes	ve Surfac	Preser Recen: Stunte: Other (e (B8)	nce of Red t Iron Redu d or Stress (Explain in	uced Iron uction in F sed Plants Remarks	(C4) Plowed So (D1) (LF	pils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	6) (LRR A)
Drift Alga Iron Surfi Inun Spai Field Obs Surface V Water tab	al Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6) Idation Visible on Aerial Irsely Vegetated Concaveservations:	ve Surface	Preser Recen: Stunte: Other (e (B8) No X Depti No X Depti	nce of Red t Iron Redu d or Stress Explain in	uced Iron uction in F sed Plants Remarks :	(C4) Plowed So (D1) (LF	bils (C6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D	6) (LRR A) ss (D7)

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

Remarks: Water table lies below depth criteria for wetland hydrology.

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty		Sampling I	Date:	6/19/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling I	Point:	13
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_			x, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°)		Long: 122.77460	6°	_ Datum:	WGS 84
Soil Map Unit Nam							NWI Classification:	none		
Are climatic / hydro	ologic conditions on the	ne site typical for tl	his time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	;)
Are Vegetation	, Soil						Normal Circumstance	es" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, impo	rtant featur	es, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No	l							
Hydric Soil Present					ampled Are		Yes X	No		
•	Present?			within a	a Wetland?					
	ble hydrology lacking			NPL appoins						
VEGETATION										
VEGETATION			Absolute	Dominant	Indicator	Domins	nce Test workshe	nt•		
			% Cover		Indicator Status?					
	se scientific names.)						of Dominant Specie OBL, FACW, or FA			
1				-					2	_(A)
2							umber of Dominant			
3						Species	Across All Strata:		2	_(B)
4							of Dominant Specie			
		Total Cover:	0			That Ar	e OBL, FACW, or FA	AC:1	100%	_(A/B)
Shrub Stratum						Provale	nce Index Worksh	not:		
4							tal % Cover of:		tiply by:	
··				-	· 	OBL sp			0	_
3.					· 	-	species		0	_
1					· 	FAC sp		x3 =	0	_
					· 		pecies		0	_
·		Total Cover:	0			UPL spe	·	x5 =	0	-
Herb Stratum						-	Totals: 0		0	(B)
Holcus lanatus	:		50	Υ	FAC		lence Index = B/A =			_(-/
Agrostis capilla		-		Y	FAC					=
3. Phalaris arund		-	5	-	FACW	Hydrop	hytic Vegetation In	dicators:		
Lotus cornicula			1		FAC	,	1 - Rapid Test for		egetation	
Persicaria amp			15		OBL	Х	2 - Dominance Tes		-9	
		-				#####	3 - Prevalence Ind			
7		-		-	-		4 - Morphological		Provide supp	ortina
				-			data in Remarks o			3
							5 - Wetland Non-V			
				•			Problematic Hydro			n)
								p.,,	(-,
		Total Cover:	121							
Woody Vine St	tratum					1Indicate	ors of hydric soil and	l wetland hydr	ology must	
							ent, unless disturbed			
2.										
		Total Cover:	0		· ——	Hydrop Vegeta	•			
% Rai	re Ground in Herb Str				0	Presen		Yes X	No	
Remarks:	2 2.00					30011		- 		
rtemarks.										

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Loc² (inches) Color (moist) Color (moist) Type¹ Texture Remarks 0-2 10 YR 4/3 100 SANDY LOAM 25 2-12 10 YR 5/2 60 7.5 YR 4/4 LOAMY SAND 10% COBBLES М 7.5 YR 4/4 5 C ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and 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: Shovel refusal-cobbles Depth (inches): 12 **Hydric Soil Present?** Yes X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, MLRA 1, 2, 4A and 4B) High Water Table (A2) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: Plas Newydd Farm- Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty	_ Sampling D	Date:	6/26/2014
Applicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling F	Point:	17
Investigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S1, T4N, R1W			
Landform (hillslope, terrace, etc.): Floodplain		Local re	elief (concav	e, convex, none): none		Slope (%):	0-1%
Subregion (LRR): Northwest Forests and Coast (LRR A	Lat:	45.850967°	,	Long: 122.77460	6°	Datum:	: WGS 84
Soil Map Unit Name: Sauvie silty clay loam	-			NWI Classification:		_	
Are climatic / hydrologic conditions on the site typical for t	this time of y	/ear?	Yes 2	X No	(If no, explain	in Remarks	 3)
Are Vegetation, Soil, or Hydrology		significantly	disturbed?	Are "Normal Circumstanc	es" Present?	Yes X	No
Are Vegetation , Soil , or Hydrology							
SUMMARY OF FINDINGS – Attach site map s	showing	sampling	point loca	ations, transects, impo	rtant featur	es, etc.	
Hydrophytic Vegetation Present? Yes No	ΣX	la tha Sa		_			
Hydric Soil Present? Yes X No)		ampled Are a Wetland?		No X		
Wetland Hydrology Present? YesNo	э <u>Х</u>						
Remarks: Plot is located in levee protected floodplain of the known disturbance of soil and vegetation, the delineation colonization by non-seeded species. Plot does not support	of wetland l	boundaries i	s largely bas	sed on observed direct hydro			
VEGETATION							
	Absolute			Dominance Test workshe	et:		
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Speci			
1				That Are OBL, FACW, or F.	AC:	1	_(A)
2				Total Number of Dominant			
3				Species Across All Strata:		2	_(B)
4				Percent of Dominant Specie			
Total Cover:	0			That Are OBL, FACW, or F.	AC:	50%	_(A/B)
Shrub Stratum 1	40 10	Y Y	UPL FAC FAC	Prevalence Index Worksh Total % Cover of: OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Index = B/A = Hydrophytic Vegetation Ir	Multi x1 =	tiply by: 0 0 0 0 0 0 0 0 //0!	- - - - - _(B)
4. Plantago lanceolata	20		FACU	1 - Rapid Test for		agotation	
5. Trifolium repens	5		FAC	2 - Dominance Te		getation	
6.				##### 3 - Prevalence Ind			
7.				4 - Morphological		rovide supp	ortina
3.				data in Remarks o			3
9.				5 - Wetland Non-\	•	,	
10.				Problematic Hydro	phytic Vegetat	tion¹ (Explain	n)
11					. , ,	` .	,
Total Cover:	105						
Woody Vine Stratum 1.				¹ Indicators of hydric soil and be present, unless disturbed			
2.				Lludranh: 41-			-
Total Cover:	: 0			Hydrophytic Vegetation			
% Bare Ground in Herb Stratum0 %			0	Present?	Yes	No X	
Remarks:						-	

SOIL								Sampling F	oint:	1
Profile De	escription: (Describe	to the de	epth needed to	document th	e indicat	tor or co	onfirm the abser	nce of indicators	i.)	
Depth	Matrix			Redox Featu	ıres					
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	 Texture		Remarks	
0-16	10 YR 4/2	60	5 YR 4/4	10	С	M	SILT LOAM		remano	
0 10	10 111 472		7.5 YR 4/4	15	C	M	<u> </u>			
			10 YR 6/2	10	D		_			
	_		5 YR 3/3			M				
	_		3 11(3/3		<u> </u>	IVI		_		
¹ Type: C=	Concentration, D=Dep	letion, RI	M=Reduced Matr	ix, CS=Cove	red or Co	ated Sa	nd Grains. ² Loc	ation: PL=Pore L	ining, M=Matrix.	
Hydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless	otherwise n	oted.)		Indicators f	or Problematic F	lydric Soils ³ :	
Histo	osol (A1)		San	dy Redox (S5	5)		_	2 cm Muck (A	\10)	
Histi	c Epipedon (A2)		Strip	ped Matrix (S	S6)		_	Red Parent N	Material (TF2)	
Blac	k Histic (A3)		Loai	my Mucky Mi	neral (F1)) (excep	t MLRA 1)	Other (Explai	in in Remarks)	
Hydr	rogen Sulfide (A4)		Loai	my Gleyed M	atrix (F2))				
Depl	leted Below Dark Surfa	ce (A11)	X Dep	leted Matrix ((F3)					
Thicl	k Dark Surface (A12)		Red	ox Dark Surfa	ace (F6)		³ Indica	tors of hydrophyti	c vegetation and	
Sand	dy Muck Mineral (S1)		Dep	leted Dark Su	urface (F	7)	wetl	and hydrology mu	ıst be present,	
Sand	dy gleyed Matrix (S4)			ox Depressio			un	less disturbed or	problematic.	
Restrictiv	e Layer (if present):		<u> </u>							
Type:										
Depth (inc	ches):						Hydric Soil Pres	ent?	Yes X	No
	oor horizonation; mixed									
HYDROLOG										
	Hydrology Indicators:									
	ndicators (any one indic	ator is su	fficient)					Secondary Ind	licators (2 or more	e required)
Surfa	ace Water (A1)		Wat	er-Stained Le	eaves (B9	excel) (excel	pt _	Water-Staine	ed Leaves (B9) (M	ILRA 1, 2,
High	Water Table (A2)		M	ILRA 1, 2, 4A	and 4B))	_	4A and 4	3)	
Satu	ration (A3)		Salt	Crust (B11)			_	Drainage Pat	terns (B10)	
Wate	er Marks (B1)		Aqu	atic Invertebr	ates (B13	3)		Dry-Season \	Water Table (C2)	
Sedi	ment Deposits (B2)		Hyd	rogen Sulfide	Odor (C	1)		Saturation Vi	sible on Aerial Im	agery (C9)
Drift	Deposits (B3)		Oxio	dized Rhizosp	heres ald	ong Livir	ng Roots (C3)	Geomorphic	Position (D2)	
Alga	l Mat or Crust (B4)		Pres	sence of Red	uced Iron	ı (C4)	_	Shallow Aqui	tard (D3)	
Iron	Deposits (B5)		Rec	ent Iron Redu	uction in F	Plowed S	Soils (C6)	FAC-Neutral	Test (D5)	
	ace Soil Cracks (B6)			nted or Stress			_		ounds (D6) (LRR	R A)
	dation Visible on Aerial	Imagery		er (Explain in			, <u> </u>		Hummocks (D7)	,
	rsely Vegetated Conca			o. (=/\pio		-,	_			
		ve ourido	(D0)							
	servations: Vater Present? Yes	2	No X De	epth (inches)						
	le Present? Yes			epth (inches)						
	Present? Yes			epth (inches)			Wetland Hyd	drology Present?	? Yes	No X
(includes	capillary fringe)		·			,				
Describe Re	ecorded Data (stream g	auge, mo	nitoring well, aer	ial photos, pr	evious in	spection	s), if available:	<u> </u>		
Dama-ili 14	Intertable Bee 1991	· ·	do formation 11	alania ·						
kemarks: W	/ater table lies below de	eptn critei	ia for wetland hy	urology.						

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty		_ Sampling [Date:	6/26/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	18
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°			Long: 122.77460	6°	Datum:	: WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam					NWI Classification:	none		
Are climatic / hydro	ologic conditions on the	ne site typical for t	his time of y	/ear?	Yes 2	X	No	(If no, explain	ı in Remarks	;)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstanc	es" Present?	Yes X	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any ar	nswers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1							
Hydric Soil Presen					ampled Are a Wetland?		Yes X	No		
Wetland Hydrology				Within	a wellanu?			_		
Remarks:	,									
VEGETATION										
VEGETATION			A1 1 1	D		Damin.	T	-4-		
			Absolute % Cover	Dominant Species?	Indicator Status?		ance Test workshe			
	se scientific names.)						r of Dominant Speci e OBL, FACW, or F.			
1					· 			<u> </u>	2	_(A)
2.							umber of Dominant			
3						Species	Across All Strata:		2	_(B)
4							of Dominant Specie			
		Total Cover:	0			That Ar	e OBL, FACW, or F.	AC:1	100%	_(A/B)
Shrub Stratum						Prevale	ence Index Worksh	eet·		
Salix lasiandra	9		50	Y	FACW		tal % Cover of:		Itiply by:	
2.	•			<u> </u>	· — —	OBL sp		x1 =	0	=
3.					· ——	-	species		0	_
4						FAC sp		x3 =	0	_
						-	pecies		0	_
·		Total Cover:	50	-		UPL sp		x5 =	0	-
Herb Stratum							Totals: 0		0	(B)
1. Phalaris arund	dinacea		80	Υ	FACW		lence Index = B/A =			- ` ′
2. Agrostis capilla			10		FAC					-
3. Lotus cornicula					FAC	Hydrop	hytic Vegetation Ir	ndicators:		
4. Persicaria am					OBL		1 - Rapid Test for		egetation	
					· ———	X	2 - Dominance Te		Ü	
6						#####	3 - Prevalence Ind	lex is ≤3.0 ¹		
7							4 - Morphological	Adaptation1 (F	rovide supp	orting
_							data in Remarks o			ŭ
•		-			-		5 - Wetland Non-\			
							Problematic Hydro	phytic Vegeta	tion ¹ (Explain	n)
				-						
		Total Cover:	92	-						
Woody Vine S	tratum					1Indicat	ors of hydric soil and	d wetland hvdr	oloav must	
1.	<u>.</u>						ent, unless disturbe			
2.						I local mana	butia			
		Total Cover:	0			Hydrop Vegeta	•			
% Ba	re Ground in Herb St				0	Presen		Yes X	_ No	
Remarks:						<u> </u>				

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Loc² (inches) Color (moist) Color (moist) Type¹ Texture Remarks 0-2 10 YR 4/2 100 SILT LOAM 2-6 7.5 YR 4/1 80 5 YR 3/3 15 SILT LOAM 5 С PL 5 YR 3/4 10 6-16 5N 80 5 YR 3/3 С PL SILT LOAM 5 7.5 YR 5/1 С М 5 YR 3/3 5 C Μ ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Black Histic (A3) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Applicant/Owner: Plas Newyd		014471104	,,-	Clark Coul	пц				mpling [6/26/2014
Applicatio Owner. I las Newyo	ld Farm, LLC					State:	WA	Sa	mpling F	Point:	17
Investigator(s): B. Haddawa	ay, T.Stout		Section	n, Township	, Range: S	S1, T4N	N, R1W				
Landform (hillslope, terrace, etc	c.): Floodplain		_ Local re	lief (concav	e, convex, r	none):	none			Slope (%	%): <u>0-1%</u>
Subregion (LRR): Northwest F	orests and Coast (LRR A	Lat:	45.850967°			Long:	122.774	606°		Dati	um: WGS 84
Soil Map Unit Name: Sau	vie silt loam, sandy substr					WI Cla	ssificatio	n: PEMO			
Are climatic / hydrologic condition	ons on the site typical for t	this time of y	/ear?	Yes	X	No		(If no,	explain	in Rema	arks)
Are Vegetation, Soi	il, or Hydrology		significantly	disturbed?	Are "No	rmal Ci	rcumsta	nces" Pre	esent?	Yes X	No
	il, or Hydrology					ed, exp	lain any	answers	in Rema	arks.)	
SUMMARY OF FINDINGS	S – Attach site map	showing	sampling	point loca	ations, tra	ansec	ts, im	portant	featur	es, etc.	
Hydrophytic Vegetation Present	t? Yes X No	0	la de a O		_						
Hydric Soil Present?	Yes X No	5		ampled Are a Wetland?		Yes		No)	(
Wetland Hydrology Present?	Yes No	ΣX	With the second	a woulding.		_					
Remarks: Plot is located in leve	ee protected floodplain of t	he Lewis an	ıl nd Columbia	Rivers in ar	n historically	/ tilled a	nd seed	ded pastu	re (withi	n 3 vears	s). Due to
known disturbance of soil and v colonization by non-seeded spe not appear to experience suffici Methods section. VEGETATION	ecies. Plot does not suppo	rt hydrophyt	tic plants, oth	ner than see	eded specie	s, or fe	ature h	ydrologica	ıl indicat	tors. Plot	location does
		Absolute	Dominant	Indicator	Dominan	ce Tes	t works	heet:			
To a Charles and the control of the		% Cover	Species?	Status?	Number o						
<u>Tree Stratum</u> (Use scientific n	names.)				That Are					•	(4)
1 2.					Total Num	abor of	Domino			2	(A)
3.			-		Species A					2	(B)
4.								_			(Б)
4.	Total Cover:		-		Percent of That Are (1	00%	(A/B)
	Total Gover.				That Aic V	ODL, 17	AOVV, 0	1170	<u> </u>	00 /0	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Shrub Stratum					Prevalenc	ce Inde	x Work	sheet:			
<u> </u>					Prevalence Total			sheet:	Mul	tiply by:	
1.					Total	I % Cov			Mul	tiply by:	
1. 2.					Total	l % Cov		x1 =_	Mul		
1 2 3					Total	I % Covicies				0	
1					Total OBL spec FACW sp	I % Covoies ecies cies	er of:	x1 = x2 =		0	
1	Total Cover:				OBL spec FACW sp FAC spec	I % Covicies ecies ecies	ver of:	x1 = x2 = x3 =		0 0 258	
1	Total Cover:				Total OBL spec FACW sp FAC spec FACU spe	I % Covicies ecies cies ecies ecies	ver of:	x1 = x2 = x3 = x4 =		0 0 258 80	
1	Total Cover:		Y	FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T	I % Covicies eccies eccies eccies eccies cies	86 20 106	x1 = x2 = x3 = x4 = x5 =		0 0 258 80 0 338	(B)
1	Total Cover:		Y	FAC FACU	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T	I % Covicies eccies eccies eccies eccies cies	86 20 106	x1 = x2 = x3 = x4 = x5 = (A)		0 0 258 80 0 338	(B)
1	Total Cover:	40	<u>Y</u>	$\overline{}$	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T	I % Covicies ecies ecies ecies cies otals: nce Ind	86 20 106 lex = B//	x1 = _ x2 = _ x3 = _ x4 = _ x5 = _ (A) _	3.:	0 0 258 80 0 338	(B)
1	Total Cover:	40		FACU	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevaled	I % Covides deci	86 20 106 dex = B//	x1 = _ x2 = _ x3 = _ x4 = _ x5 = _ (A) _	3.	0 0 258 80 0 338 2	`
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense	Total Cover:	40 20 40		FACU FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevaled	I % Covides peci	86 20 106 lex = B//	x1 = x2 = x3 = x4 = x5 = (A) A = Indicate	3 ors: ohytic Ve	0 0 258 80 0 338 2	`
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus	Total Cover:	40 20 40 5		FACU FAC FAC	Total OBL spector FACW spector FACU spector FACU spector UPL spector Column T Prevaled Hydrophy	I % Covides cies cies cies cies cotals: cotals	86 20 106	x1 = x2 = x3 = x4 = x5 = (A) A = Indicator of Hydron	3. ors: ohytic Ve	0 0 258 80 0 338 2	`
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6.		40 20 40 5 1		FACU FAC FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevaled Hydrophy	I % Covicies cecies cies cotals: nce Ind	86 20 106 dex = B// getation id Test fininance valence	x1 = x2 = x3 = x4 = x5 = (A) A = Indicated of the Hydrop Test is >5	3 ors: ohytic Ve 60% ≤3.0 ¹	0 0 258 80 0 338 2	
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6. 7.		40 20 40 5 1		FACU FAC FAC	Total OBL spect FACW sp FAC spect FACU spect Column T Prevalet Hydrophy X 2	I % Covides coic	86 20 106 dex = B// getation id Test fininance valence chologic	x1 =x2 =x3 =x4 =x5 =(A)A =TINDICATOR	3 ors: ohytic Ve 60% ≤3.0¹ tion1 (P	0 0 2258 80 0 338 2	
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6. 7. 88		40 20 40 5 1		FACU FAC FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevale Hydrophy X 2 3 4 4 5 6 8	I % Covides a coices co	86 20 106 lex = B// getation id Test fininance valence bhologic Remark land No	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is >5 Index is seal Adapta s or on a n-Vascular in the control of the control	3 ors: ohytic Ve 60% ≤3.0¹ tion1 (P separatur Plants	0 0 2258 80 0 3338 2 Provide size sheet)	upporting
1		40 20 40 5 1	Y	FACU FAC FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevale Hydrophy X 2 3 4 4 5 6 8	I % Covides a coices co	86 20 106 lex = B// getation id Test fininance valence bhologic Remark land No	x1 = x2 = x3 = x4 = x5 = (A) A = Indicate for Hydrop Test is >5 Index is = al Adapta s or on a	3 ors: ohytic Ve 60% ≤3.0¹ tion1 (P separatur Plants	0 0 2258 80 0 3338 2 Provide size sheet)	upporting
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6. 7. 8. 9. 10.		40 20 40 5 1	Y	FACU FAC FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevale Hydrophy X 2 3 4 4 5 6 8	I % Covides a coices co	86 20 106 lex = B// getation id Test fininance valence bhologic Remark land No	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is >5 Index is seal Adapta s or on a n-Vascular in the control of the control	3 ors: ohytic Ve 60% ≤3.0¹ tion1 (P separatur Plants	0 0 2258 80 0 3338 2 Provide size sheet)	upporting
1. 2. 3. 4. 5. Herb Stratum 1. Lolium perenne 2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6. 7. 8. 9. 10. 11.		40 20 40 5 1	Y	FACU FAC FAC	Total OBL spec FACW sp FAC spec FACU spec UPL spec Column T Prevale Hydrophy X 2 3 4 4 5 6 8	I % Covides a coices co	86 20 106 lex = B// getation id Test fininance valence bhologic Remark land No	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is >5 Index is seal Adapta s or on a n-Vascular in the control of the control	3 ors: ohytic Ve 60% ≤3.0¹ tion1 (P separatur Plants	0 0 2258 80 0 3338 2 Provide size sheet)	upporting
1		40 20 40 5 1	Y	FACU FAC FAC	Total OBL spector FACW spector FACU spector FACU spector UPL spector Column T Prevaled Hydrophy X 3 4 5 6 6 1 Indicators	I % Covides — ecies —	86 20 106 lex = B// getation id Test fininance valence chologic Remark land No natic Hy	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is > 5 Index is sor on a sor on a n-Vascular drophytic and wetla	3 ohytic Ve 50% ≤3.0¹ tion1 (P separatur Plants Vegetat	0 0 258 80 0 338 2 egetation Provide size sheet)	upporting plain)
1		40 20 40 5 1	Y	FACU FAC FAC	Total OBL spector FACW spector FACU spector FACU spector UPL spector Column T Prevaled Hydrophy X 2 5 6 1 Indicators be present	I % Covides I will be considered in the consider	86 20 106 lex = B// getation id Test fininance valence chologic Remark land No natic Hy	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is > 5 Index is sor on a sor on a n-Vascular drophytic and wetla	3 ohytic Ve 50% ≤3.0¹ tion1 (P separatur Plants Vegetat	0 0 258 80 0 338 2 egetation Provide size sheet)	upporting Dain)
2. Senecio jacobaea 3. Agrostis capillaris 4. Cirsium arvense 5. Lotus corniculatus 6. 7. 8. 9. 10	Total Cover:	40 20 40 5 1	Y	FACU FAC FAC	Total OBL spect FACW spect FACU spect FACU spect Column T Prevaled Hydrophy 1 Indicators be present	I % Covides I we cless	86 20 106 lex = B// getation id Test fininance valence chologic Remark land No natic Hy	x1 = x2 = x3 = x4 = x5 = (A) A = A = A Indicate for Hydrop Test is > 5 Index is sor on a sor on a n-Vascular drophytic and wetla	3 ohytic Ve 50% ≤3.0¹ tion1 (P separatur Plants Vegetat	0 0 258 80 0 338 2 egetation Provide size sheet)	upporting Dain)
1	Total Cover:	40 20 40 5 1	Y	FACU FAC FAC	Total OBL spect FACW spect FACU spect FACU spect Column T Prevaled Hydrophy	I % Covides I we cless	86 20 106 lex = B// getation id Test fininance valence chologic Remark land No natic Hy	x1 = x2 = x3 = x4 = x5 = (A) A = (A) A = (A) A = A = A A A A A A A A A A A A A A A	3 ohytic Ve 50% ≤3.0¹ tion1 (P separatur Plants Vegetat	0 0 258 80 0 338 2 egetation Provide size sheet)	upporting Dain)

SOIL								Sampling Po	oint:	19
Profile De	escription: (Describe	to the de	pth needed to doo	ument th	e indicat	or or con	firm the absence	of indicators.)		
Depth	Matrix		Re	dox Featu						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	_
0-2	10 YR 3/2	100					SILT LOAM			
2-8	10 YR 4/2	85	10 YR 4/4	10	С	M	SILT LOAM			
			10 YR 5/2	5	<u>D</u>	M		-		
8-10	10 YR 4/2	65	10 YR 4/4	30	<u>C</u>	M	SILT LOAM			
			10 YR 6/1	5	<u>D</u>	M				
10-16	10 YR 5/1	90	7.5 YR 4/4	10	С	<u>M</u>	SILT LOAM			
¹ Type: C=	=Concentration, D=Dep	letion, RN	/≡Reduced Matrix,	CS=Cove	red or Co	ated San	d Grains. ² Locatio	n: PL=Pore Lir	ning, M=Matrix	
Hydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless oth	nerwise n	oted.)		Indicators for I	Problematic Hy	dric Soils ³ :	
Histo	osol (A1)		Sandy	Redox (S5	5)			2 cm Muck (A	10)	
Histi	c Epipedon (A2)			d Matrix (S				Red Parent Ma		
	k Histic (A3)			Mucky Mir		(except	MLRA 1)	Other (Explain		
Hydr	rogen Sulfide (A4)		Loamy	Gleyed Ma	atrix (F2)					
Depl	leted Below Dark Surfa	ce (A11)	X Deplete	ed Matrix (F3)					
Thic	k Dark Surface (A12)		Redox	Dark Surfa	ace (F6)		³ Indicators	of hydrophytic	vegetation and	I
Sand	dy Muck Mineral (S1)		Deplete	ed Dark Su	ırface (F7	')	wetland	hydrology mus	t be present,	
Sand	dy gleyed Matrix (S4)		Redox	Depressio	ns (F8)		unless	s disturbed or p	roblematic.	
Restrictiv	/e Layer (if present):		<u> </u>							
Type:										
Depth (inc	ches):					Ну	dric Soil Present	?	Yes X	No
Remarks: Po	oor horizonation; mixed	matrix. S	oil has been tilled w	vithin the p	oast 3 yea	rs				
HYDROLOG	GY									
	GY Hydrology Indicators:									
Wetland I		ator is su	fficient)					Secondary Indic	cators (2 or mo	re required)
Wetland I Primary In	Hydrology Indicators:	ator is su		Stained Le	eaves (B9) (except		Secondary Indic		
Wetland In Primary In Surfa	Hydrology Indicators: ndicators (any one indic	ator is su	Water-	Stained Le					Leaves (B9) (
Wetland In Primary In Surfa	Hydrology Indicators: ndicators (any one indicators (A1)	ator is su	Water-					Water-Stained	Leaves (B9) (I	
Wetland I Primary In Surfa High Satu	Hydrology Indicators: ndicators (any one indicators (A1) ace Water (A1) water Table (A2)	ator is su	Water- MLR Salt Cri	A 1, 2, 4A	and 4B)			Water-Stained 4A and 4B	Leaves (B9) (I erns (B10)	MLRA 1, 2,
Wetland I Primary In Surfa High Satu Wate	Hydrology Indicators: ndicators (any one indic ace Water (A1) water Table (A2) aration (A3)	ator is su	Water-Salt Cri	A 1, 2, 4A ust (B11)	and 4B)	3)		Water-Stained 4A and 4B Drainage Patte	Leaves (B9) (leaves (B10) erns (B10) later Table (C2	MLRA 1, 2,
Wetland I Primary In Surfa High Satu Wate Sedi	Hydrology Indicators: ndicators (any one indicators (A1) ace Water (A1) Water Table (A2) uration (A3) er Marks (B1)	ator is su	Water-Salt Cru Aquatic Hydrog	A 1, 2, 4A ust (B11) Invertebra en Sulfide	and 4B) ates (B13 Odor (C	s) 1)		Water-Stained 4A and 4B Drainage Patte Dry-Season W	Leaves (B9) (l) erns (B10) ater Table (C2 ble on Aerial Ir	MLRA 1, 2,
Wetland I Primary In Surfa High Satu Wate Sedi Drift	Hydrology Indicators: ndicators (any one indicace Water (A1) water Table (A2) water (A3) er Marks (B1) iment Deposits (B2)	ator is su	Water-Salt Cru Aquatic Hydrog Oxidize	A 1, 2, 4A ust (B11) Invertebra en Sulfide	and 4B) ates (B13 Odor (C	i) 1) ong Living		Water-Stained 4A and 4B Drainage Patte Dry-Season W Saturation Visi	Leaves (B9) (I erns (B10) later Table (C2 ble on Aerial Ir osition (D2)	MLRA 1, 2,
Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga	Hydrology Indicators: ndicators (any one indicators (any one indicators (A1) ace Water (A1) water Table (A2) water Table (A2) water (A3) er Marks (B1) iment Deposits (B2) Deposits (B3)	ator is su	Water-s MLR Salt Cro Aquatic Hydrog Oxidize Presen	A 1, 2, 4A ust (B11) Invertebra en Sulfide d Rhizosp	ates (B13 Odor (Coheres alcouced Iron	i) 1) ong Living (C4)	Roots (C3)	Water-Stained 4A and 4B Drainage Patte Dry-Season W Saturation Visit Geomorphic P	Leaves (B9) (I erns (B10) ater Table (C2 ble on Aerial Ir osition (D2) ard (D3)	MLRA 1, 2,

Other (Explain in Remarks)

Depth (inches):

Depth (inches):

Depth (inches):

Remarks: Water table lies below depth criteria for wetland hydrology.

No X No X No X

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

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Field Observations:

Water table Present?

Saturation Present?

Surface Water Present?

(includes capillary fringe)

No X

Frost-Heave Hummocks (D7)

Wetland Hydrology Present?

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling [Date:	6/26/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	20
Investigator(s):	B. Haddaway, T.Sto	ut		Section	n, Township	, Range:	S1, T4N, R1W		· · · · · · · · · · · · · · · · · · ·	
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	nd Coast (LRR A)	Lat:	_ 45.850967°			Long: 122.77460)6°	- '	WGS 84
Soil Map Unit Nam	ne: Sauvie silt lo	am, sandy substra	atum				NWI Classification:	none	-	
Are climatic / hydro	ologic conditions on th	e site typical for the	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks)
Are Vegetation	, Soil		•		_		lormal Circumstand	_		
Are Vegetation	, Soil						eded, explain any a			
SUMMARY OF	FINDINGS - Att	_								
Hydrophytic Veget	ation Present?	Yes X No		la tha C	II A	_				
Hydric Soil Presen	t?	Yes X No			ampled Are a Wetland?	a	Yes X	No		
Wetland Hydrology	y Present?	Yes X No		Within	a Welland:					
Remarks: Seconda	ary hydrology indicato	rs applied; fieldwo	rk occuring	when soil s	aturation wo	ould not ty	pically be observal	ole.		
VEGETATION										·
			Absolute	Dominant	Indicator	Domina	nce Test workshe	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Number	of Dominant Spec	ies		
1.	,					That Are	e OBL, FACW, or F	AC:	2	(A)
2.				-		Total Nu	ımber of Dominant			
3.						Species	Across All Strata:		2	(B)
4.		_		-	· 	Percent	of Dominant Speci			. ` '
		Total Cover:	0				e OBL, FACW, or F		00%	_(A/B)
Shrub Stratum						Prevale	nce Index Worksh	neet:		
1.						Tot	tal % Cover of:	Mul	tiply by:	
2.						OBL spe		x1 =	0	•
3.							species		0	•
4.		_				FAC spe	ecies	x3 =	0	-
5.		_				FACU s	pecies	x4 =	0	-
		Total Cover:	0			UPL spe		x5 =	0	-
Herb Stratum						Column	Totals: 0	(A)	0	(B)
1. Phalaris arund	linacea		5		FACW	Preva	lence Index = B/A =	#DI\	//0!	-
2. Agrostis capilla	aris	<u> </u>	30	Υ	FAC					•
3. Lotus cornicula	atus	<u>.</u>	5		FAC	Hydrop	hytic Vegetation I	ndicators:		
4. Juncus effusus	S		40	Υ	FACW		1 - Rapid Test for	Hydrophytic Ve	egetation	
5. Festuca arund	linacea		10		FAC	X	2 - Dominance Te	est is >50%		
6. Lolium perenn	е		5		FAC	#####	3 - Prevalence Inc	dex is ≤3.0 ¹		
7. Trifolium reper	าร		5		FAC		4 - Morphological	Adaptation1 (P	rovide suppo	orting
8. Rumex crispus	S		0.1		FAC		data in Remarks	or on a separat	e sheet)	
9							5 - Wetland Non-	Vascular Plants	, ¹	
10							Problematic Hydro	ophytic Vegetat	tion ¹ (Explain	1)
		Total Cover:	100.1							
Woody Vine S	<u>tratum</u>						ors of hydric soil an			
1				-		be prese	ent, unless disturbe	d or problemat	iC.	
2						Hydrop	hytic			
		Total Cover:				Vegetat	ion			
% Ba	re Ground in Herb Str	atum0 %	Cover of Bi	otic Crust	0	Present	?	Yes X	No	
Remarks:										

Matrix		Red	lox Featu	res		firm the abs				
es) Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textur	e.		Remark	'S
10 YR 5/2	100		,,,	.) 0		SILT LOA				
10 YR 5/1	85	7.5 YR 4/4	10	С	M	SILT LOA				
		10 YR 6/1	5	D	M					
10 YR 5/2	90	5 YR 4/4	5	С	M	SILT LOA	M			
		10 YR 6/1	5	D	M					
3/N	98	5 YR 3/4	2	С	M	SILT LOA	M			
4/N	95	5 YR 4/3	5	С	М	SILT LOA				
: C=Concentration, D=Dep					ated Sand				re Lining, M=Mat	
Histosol (A1)	able to a		erwise in Redox (S5	-		illulcator		2 cm Muck	-	•
Histic Epipedon (A2)			Matrix (S						nt Material (TF2)	
Black Histic (A3)				neral (F1)	(evcent	MI PA 1)			plain in Remarks	
Hydrogen Sulfide (A4)			-	atrix (F2)	(except	WILKA I)		Other (EX	Jiaiii iii Neiliaiks)
Depleted Below Dark Surfac	oo (A11)		d Matrix (, ,						
Depleted Below Bark Surfac Thick Dark Surface (A12)	SE (ATT)		ark Surfa			³ Indi	icatore	of hydroph	nytic vegetation a	and
Sandy Muck Mineral (S1)				urface (F7	`				must be present	
Sandy gleyed Matrix (S4)			epressio)				or problematic.	,
ictive Layer (if present):		<u> </u>		- (- /						
(inches):					Ну	dric Soil Pr	esent	?	Yes X	No
					Ну	dric Soil Pr	esent?	?	Yes <u>X</u>	No
(inches):		Water-S MLRA Salt Cru Aquatic Hydroge Oxidized	A 1, 2, 4A st (B11) Invertebra en Sulfide I Rhizosp	eaves (B9 and 4B) ates (B13 Odor (C' oheres alo) (except))) ng Living		<u>s</u>	Secondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph	Indicators (2 or rined Leaves (B9	more require) (MLRA 1 ,
s: PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators): Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presence	A 1, 2, 4A st (B11) Invertebra n Sulfide d Rhizosp e of Redu	ates (B13 Odor (C´ oheres alo) (except)) ng Living (C4)	Roots (C3)	<u>s</u>	Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad	Indicators (2 or rained Leaves (B9 14B) Patterns (B10) on Water Table (1 Visible on Aerianic Position (D2) quitard (D3)	more require) (MLRA 1 ,
PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I	A 1, 2, 4A st (B11) Invertebra on Sulfide I Rhizosp e of Redu ron Redu	ates (B13 Odor (C ² oheres alo uced Iron action in F) (except)) ng Living (C4) lowed Sc	Roots (C3)	<u>s</u>	Secondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac	Indicators (2 or r ined Leaves (B9 I 4B) Patterns (B10) on Water Table (I Visible on Aeria nic Position (D2)	nore require) (MLRA 1 , C2) I Imagery (C
LOGY Ind Hydrology Indicators: ry Indicators (any one indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	ator is su	Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebra in Sulfide if Rhizosp e of Redu ron Redu or Stress	and 4B) ates (B13 Odor (C ² wheres alouced Iron action in Fied Plants) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)		Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or rined Leaves (B9 I 4B) Patterns (B10) on Water Table (Invisible on Aerianic Position (D2) quitard (D3) ral Test (D5)	nore require) (MLRA 1, C2) I Imagery (C
s: PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators): Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	ator is su	Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted (B7) Other (E	A 1, 2, 4A st (B11) Invertebra in Sulfide if Rhizosp e of Redu ron Redu or Stress	ates (B13 Odor (C ² oheres alo uced Iron action in F) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)		Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or rained Leaves (B9 I 4B) Patterns (B10) on Water Table (a Visible on Aerianic Position (D2) quitard (D3) ral Test (D5)	more require) (MLRA 1 , C2) I Imagery (C
PLOGY Ind Hydrology Indicators: Try Indicators (any one indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concav	ator is su	Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted (B7) Other (E	A 1, 2, 4A st (B11) Invertebra in Sulfide if Rhizosp e of Redu ron Redu or Stress	and 4B) ates (B13 Odor (C ² wheres alouced Iron action in Fied Plants) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)		Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or rined Leaves (B9 I 4B) Patterns (B10) on Water Table (Invisible on Aerianic Position (D2) quitard (D3) ral Test (D5)	more require) (MLRA 1 , C2) I Imagery (C
s: PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators): Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial	Imagery re Surfac	Water-S MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted (B7) Other (E	A 1, 2, 4A st (B11) Invertebra in Sulfide if Rhizosp e of Redu ron Redu or Stress	and 4B) ates (B13 Odor (C ² oheres alc uced Iron uction in F ed Plants Remarks) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)		Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or rined Leaves (B9 I 4B) Patterns (B10) on Water Table (Invisible on Aerianic Position (D2) quitard (D3) ral Test (D5)	more require) (MLRA 1 , C2) I Imagery (C
PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) ron Deposits (B5) Surface Soil Cracks (B6) nundation Visible on Aerial Sparsely Vegetated Concav Observations: ce Water Present? Yes table Present? Yes	Imagery	Water-S MLRA	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp e of Redu ron Redu or Stress explain in (inches): (inches):	and 4B) ates (B13 Odor (C ² oheres alc uced Iron uction in F ed Plants Remarks) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3) sils (C6)	<u>s</u>	Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neuti Raised An Frost-Heav	Indicators (2 or rained Leaves (B9 I 4B) Patterns (B10) on Water Table (and Visible on Aerianic Position (D2) quitard (D3) ral Test (D5) at Mounds (D6) (Ive Hummocks (I	more require) (MLRA 1, C2) I Imagery (C
PLOGY Ind Hydrology Indicators: ry Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concav Observations: ce Water Present? Yes	Imagery	Water-S MLRA	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp e of Redu ron Redu or Stress explain in	and 4B) ates (B13 Odor (C ² oheres alc uced Iron uction in F ed Plants Remarks) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	<u>s</u>	Gecondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ac FAC-Neuti Raised An Frost-Heav	Indicators (2 or rained Leaves (B9 I 4B) Patterns (B10) on Water Table (and Visible on Aerianic Position (D2) quitard (D3) ral Test (D5) at Mounds (D6) (Ive Hummocks (I	more require) (MLRA 1 , C2) I Imagery (C

Project/Site. Plas Newyord Farm- Lancaster Lake S	Siuu Area	City/Courity.	Clark Coul		2014
Applicant/Owner: Plas Newydd Farm, LLC				State: WA Sampling Point:	21
Investigator(s): B. Haddaway, T.Stout		Section	n, Township	, Range: S1, T4N, R1W	
Landform (hillslope, terrace, etc.): Floodplain		Local re	lief (concav	e, convex, none): none Slope (%): 0-1%	
Subregion (LRR): Northwest Forests and Coast (LRR A) Lat:	_ 45.850967°		Long: 122.774606° Datum: WGS	84
Soil Map Unit Name: Sauvie silt loam, sandy substra	-			NWI Classification: PEMC	
Are climatic / hydrologic conditions on the site typical for t		vear?	Yes		
			_	Are "Normal Circumstances" Present? Yes X No	
Are Vegetation, Soil, or Hydrology					
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Yes X No)				
Hydric Soil Present? Yes X No			ampled Are	YAS NO X	
Wetland Hydrology Present? Yes No		within a	a Wetland?	· · · · · · · · · · · · · · · · · · ·	
, , , , , <u></u>				n historically tilled and seeded pasture (within 3 years). Due to	
colonization by non-seeded species. Plot does not support elevation that appears to not experience soil saturation subsethods sections.	rt hydrophy	tic plants oth	er than seed	sed on observed direct hydrology (water table/saturation) and ded species, or feature hydrological indicators. Plot is at an as when compared to river stage data as described in the repor	rt
VEGETATION					
	Absolute			Dominance Test worksheet:	
Tree Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Species	
1.				That Are OBL, FACW, or FAC: 2 (A)	
2.				Total Number of Dominant	
3.		-		Species Across All Strata: 3 (B)	
4.				Percent of Dominant Species	
Total Cover:	0	-		That Are OBL, FACW, or FAC:(A/B)	
Shruh Stratum				Prevalence Index Worksheet:	
Shrub Stratum					
1				Total % Cover of: Multiply by:	
2				OBL species x1 = 0	
3.			· 	FACW speciesx2 =0	
4				FAC speciesx3 =0	
5.				FACU speciesx4 =0	
Total Cover:	0			UPL speciesx5 = 0	
Herb Stratum				Column Totals: (A) (B)	
1. Lolium perenne	30		FAC	Prevalence Index = B/A = #DIV/0!	
2. Bromus commutatus	50		UPL		
3. Agrostis stolonifera	25	Υ	FAC	Hydrophytic Vegetation Indicators:	
4. Plantago lanceolata	8		FACU	1 - Rapid Test for Hydrophytic Vegetation	
5. Hypochaeris radicata	1		FACU	X 2 - Dominance Test is >50%	
6. Geranium dissectum	1		UPL	##### 3 - Prevalence Index is ≤3.0 ¹	
7				4 - Morphological Adaptation1 (Provide supporting	
8				data in Remarks or on a separate sheet)	
9				5 - Wetland Non-Vascular Plants ¹	
10				Problematic Hydrophytic Vegetation ¹ (Explain)	
11.					
Total Cover:	115				
Woody Vine Stratum 1.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2.					
Total Cover:	0		-	Hydrophytic	
	Cover of Bi		0	Vegetation Present? Yes X No	
Remarks:	OUVEL OF DE	ouc orust	<u> </u>	162 V NO	
romano.					

Brofile De								Sampling		21
	scription: (Describ	e to the de	-			or or co	nfirm the abser	nce of indicator	's.)	
Depth	Matrix		-	Redox Featu		2	_			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-2	10 YR 4/2	100	10.1/0.1/1				SILT LOAM			
2-6	10 YR 5/1	90	10 YR 4/4		<u>C</u>	<u>M</u>	SILT LOAM		NO NO LINE DOO	
6-16	10 YR 5/2	85	5 YR 3/4		<u>C</u>	PL	SILT LOAM	CONTAIR	NS NO LIVE ROOT	S
			10 YR 6/1		D	M	_			
-							_			
			1			· 	_			
							_			
¹ Type: C=	Concentration, D=D	epletion, RI	M=Reduced Matr	x, CS=Cove	red or Co	ated Sar	d Grains. ² Loc	cation: PL=Pore	Lining, M=Matrix.	
Hydric Soi	il Indicators: (App	licable to a	III LRRs, unless	otherwise n	oted.)		Indicators f	for Problematic	Hydric Soils ³ :	
Histos	sol (A1)		Sand	dy Redox (S	5)			2 cm Muck ((A10)	
Histic	Epipedon (A2)		Strip	ped Matrix (S6)		_	Red Parent	Material (TF2)	
Black	Histic (A3)		Loar	ny Mucky Mi	neral (F1)	(except	MLRA 1)	Other (Expla	ain in Remarks)	
Hydro	ogen Sulfide (A4)		Loar	ny Gleyed M	atrix (F2))				
Deple	eted Below Dark Sur	face (A11)	X Dep	eted Matrix ((F3)					
Thick	Dark Surface (A12))	Red	ox Dark Surf	ace (F6)		³ Indica	ators of hydrophy	tic vegetation and	
Sand	y Muck Mineral (S1)		Dep	eted Dark Si	urface (F	7)	wetl	and hydrology m	ust be present,	
Sand	y gleyed Matrix (S4)		Red	ox Depressio	ns (F8)		un	nless disturbed or	r problematic.	
	e Layer (if present)	:								
Restrictive										
Restrictive Type: Depth (inch			Soil has been tille	d within the p	oast 3 yea		ydric Soil Pres	sent?	Yes X	No
Restrictive Type: Depth (inch Remarks: Po	nes):		Soil has been tille	d within the p	oast 3 yea		ydric Soil Pres	sent?	Yes X	No
Restrictive Type: Depth (inch Remarks: Po	nes):	ed matrix. §	Soil has been tille	d within the p	oast 3 yea		ydric Soil Pres	sent?	Yes X	No
Restrictive Type: Depth (inch Remarks: Po	hes): or horizonation; mix	ed matrix. §		d within the p	oast 3 yea		ydric Soil Pres		Yes X	
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc	hes): or horizonation; mix sY lydrology Indicator	ed matrix. §	fficient)	d within the p		ars		Secondary In		required)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc	hes): for horizonation; mix sY lydrology Indicator dicators (any one inc	ed matrix. §	fficient) Wat		eaves (B9	ars		Secondary In	dicators (2 or more led Leaves (B9) (M	required)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High	hes):	ed matrix. §	fficient) Wat M Salt	er-Stained Le LRA 1, 2, 4 <i>A</i> Crust (B11)	eaves (B9	ers e) (excep		Secondary In Water-Stain 4A and 4	dicators (2 or more led Leaves (B9) (M 4B) atterns (B10)	required)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate	hes):	ed matrix. §	fficient) Wate Salt Aque	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr	eaves (B9 A and 4B) rates (B13	ers 9) (excep		Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season	dicators (2 or more ed Leaves (B9) (M 4B) atterns (B10) Water Table (C2)	required) LRA 1, 2,
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate	hes):	ed matrix. §	fficient) Wate M Salt Aque	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide	eaves (B9 A and 4B) rates (B13	9) (excep	t	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V	edicators (2 or more led Leaves (B9) (M 4B) atterns (B10) Water Table (C2) /isible on Aerial Ima	required) LRA 1, 2,
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [hes):	ed matrix. §	fficient) Wat Salt Aqua Hyda	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp	eaves (B9 A and 4B) rates (B13 e Odor (C	ers (excep 3) 1) ong Living		Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic	dicators (2 or more led Leaves (B9) (M 4 B) atterns (B10) Water Table (C2) /isible on Aerial Ima	required) LRA 1, 2,
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal	hes): or horizonation; mix by lydrology Indicator dicators (any one incide Water (A1) Water Table (A2) ration (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)	ed matrix. §	fficient) Wate Salt Aqua Hyde Oxid Pres	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red	eaves (B9 A and 4B) rates (B13 e Odor (C oheres ald uced Iron	ars (C4)	t	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Imac Position (D2) uitard (D3)	required) LRA 1, 2,
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [hes):	ed matrix. §	fficient) Wate Salt Aqua Hyde Oxid Pres Reco	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Red	eaves (B9 and 4B) rates (B13 e Odor (C oheres ald uced Iron uction in F	3) (excep 3) 1) 2) (C4) Plowed S	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra	dicators (2 or more led Leaves (B9) (Materns (B10)) Water Table (C2) Visible on Aerial Imaterns (D2) Litard (D3) Il Test (D5)	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa	hes):	ed matrix. S	fficient) Mate M Salt Aqua Hydr Oxid Pres Reco Stur	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Redu ted or Stress	eaves (B9 and 4B) ates (B13 odor (Copheres alo uced Iron uction in F	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Inund	hes):	ed matrix. S s: dicator is su	fficient) — Wate	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Red	eaves (B9 and 4B) ates (B13 odor (Copheres alo uced Iron uction in F	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (Materns (B10)) Water Table (C2) Visible on Aerial Imaterns (D2) Litard (D3) Il Test (D5)	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High ' Satur. Wate Sedin Drift [Algal Iron [Surfa Inund Spars	hes): or horizonation; mix by lydrology Indicator dicators (any one incice Water (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerisely Vegetated Concessions	ed matrix. S s: dicator is su	fficient) — Wate	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Redu ted or Stress	eaves (B9 and 4B) ates (B13 odor (Copheres alo uced Iron uction in F	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High ' Satur. Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse	hes): Incor horizonation; mix Incor horizona	ed matrix. S s: dicator is su ial Imagery ave Surfac	### Wate	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Redu ted or Stress er (Explain in	eaves (B9 A and 4B) eates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants Remarks	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Wi	hes): Incor horizonation; mix Incor horizona	ed matrix. \$ s: dicator is su ial Imagery ave Surfac	### Wate	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Red ted or Stress er (Explain in	eaves (B9 A and 4B) eates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants Remarks	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	t g Roots (C3) oils (C6)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Imac Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High ' Satur. Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse	hes):	ed matrix. S s: dicator is su ial Imagery ave Surfac	### Wate	er-Stained Le LRA 1, 2, 4A Crust (B11) atic Invertebr ogen Sulfide ized Rhizosp ence of Red ent Iron Redu ted or Stress er (Explain in	eaves (B9 A and 4B) rates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants Remarks	ars (excep (a) (b) (c) (c) (c) (c) (c) (c) (c	g Roots (C3)	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Image Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)
Restrictive Type: Depth (inch Remarks: Po HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Water table Saturation (includes c	hes):	ed matrix. S s: dicator is su dicator is su eave Surfac es es es es	### Wate	er-Stained Lecter (B11) atic Invertebrogen Sulfiderized Rhizospence of Reducted or Stresser (Explain in Epth (inches) epth (inches) epth (inches)	eaves (B9 A and 4B) eates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants Remarks	ars (C4) Plowed S (D1) (Ll	t g Roots (C3) oils (C6) RR A) Wetland Hyd	Secondary In Water-Stain 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutra Raised Ant I Frost-Heave	dicators (2 or more led Leaves (B9) (M4B) atterns (B10) Water Table (C2) /isible on Aerial Image Position (D2) uitard (D3) al Test (D5) Mounds (D6) (LRR	required) LRA 1, 2, agery (C9)

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling D	Date:	6/26/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	22
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°	•		Long: 122.774606	3°	Datum:	WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam	· ·				NWI Classification:	none		
Are climatic / hydro	ologic conditions on the	ne site typical for the	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	lormal Circumstance			
Are Vegetation	, Soil						eded, explain any an	swers in Rema	arks.)	, <u></u>
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	transects, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen		Yes X No			ampled Are a Wetland?	а	Yes X	No		
Wetland Hydrology	y Present?	Yes X No		WILIIII	a wellanu:					
Remarks: Samplin	g occuring when soil	saturation wouldn	t typically b	e observabl	e. Hydrology	/ based o	n secondary indicato	ors		
VEGETATION										
			Absolute	Dominant	Indicator	Domina	nce Test workshee	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Number	of Dominant Specie	es		
1.	,			-		That Are	e OBL, FACW, or FA	AC:	2	(A)
2.						Total Nu	umber of Dominant			,
3.						Species	Across All Strata:		2	(B)
4.						Percent	of Dominant Specie			,
		Total Cover:	0				e OBL, FACW, or FA		00%	(A/B)
Shrub Stratum						Prevale	nce Index Worksho	oot:		
1.							tal % Cover of:		tiply by:	
2.		_				OBL spe			0	-
3.				-	· 	1	species		0	-
4					· 	FAC spe		x3 =	0	-
5.				-	· 	-		x4 =	0	-
·		Total Cover:	0			UPL spe		x5 =	0	•
Herb Stratum							-	(A)	0	(B)
Holcus lanatus	S		10		FAC		lence Index = B/A =			.(-/
2. Agrostis capilla			30	Υ	FAC				-	•
Persicaria amp			5	-	OBL	Hvdrop	hytic Vegetation In	dicators:		
Juncus effusus			10	-	FACW		1 - Rapid Test for I		egetation	
5. Festuca aruno	linacea		5	-	FAC	X	2 - Dominance Tes		Ü	
6. Lolium perenn	е		50	Υ	FAC	#####	3 - Prevalence Inde	ex is ≤3.0 ¹		
7. Trifolium reper	าร		5		FAC		4 - Morphological A	Adaptation1 (P	rovide suppo	orting
8. Agrostis stolor			20	-	FAC		data in Remarks o			Ü
9.							5 - Wetland Non-V	ascular Plants	1	
10.							Problematic Hydro	phytic Vegetat	ion ¹ (Explair	1)
							•			
		Total Cover:	135							
Woody Vine S	<u>tratum</u>						ors of hydric soil and			
1.						be prese	ent, unless disturbed	ı or problemati	C.	
2						Hydrop				
		Total Cover:				Vegetat				
% Ba	re Ground in Herb Str	ratum <u>0</u> %	Cover of Bi	otic Crust	0	Present	17	Yes X	No	
Remarks:			·							·
1										

SOIL Sampling Point: 22

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

Profile De s Depth	Matrix			Redo	ox Featu	res							
nches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	- Texture)		Re	marks	
-2	10 YR 4/2	100						SILT LOAM	<u>и</u>				
-5	10 YR 4/2	90	10 YR 4	/4	10	С	M	SILT LOAM	<u>И</u>				
-9	10 YR 5/2	80	5YR 4/3		20	С	M	SILT LOAM	<u> И</u>				
-12	4/N	95	5 YR 4/4		5	С	M	SCL					
2-16	10 YR 6/1	80	7.5 YR 3		20	С	М	SCL					
Гуре: С=0	Concentration, D=Dep	letion, RN	√=Reduc∈	ed Matrix, C	S=Cover	red or Coa	ated San	d Grains. ² Lo	ocation: F	PL=Pore	Lining, M	=Matrix.	
lydric Soi	il Indicators: (Applic	able to a	II LRRs, ι	ınless othe	rwise n	oted.)		Indicators	for Prob	lematic	Hydric S	oils³:	
Histos	sol (A1)			Sandy Re	edox (S5	5)			2 cı	m Muck	(A10)		
Histic	Epipedon (A2)			Stripped I	Matrix (S	86)			Red	d Parent	t Material (TF2)	
	Histic (A3)			-			(except	MLRA 1)	Oth	er (Expl	lain in Rem	narks)	
	ogen Sulfide (A4)			Loamy G	-			,		` .		,	
	eted Below Dark Surface	ce (A11)	X	_	-								
	Dark Surface (A12)) (Redox Da	,	•		³ Indic	ators of h	vdrophy	ytic vegeta	tion and	
	y Muck Mineral (S1)			_ Depleted		` '	' \				nust be pre		
	y gleyed Matrix (S4)			Redox De		•	,		-		or problema		
	E Layer (if present):			_ Redox De	срі сэзіо	113 (1 0)			ii iicəə diə	turbeu c	n problema	auc.	
	2 Lay 6: (p. 666).												
epth (inch	nes):						Н	ydric Soil Pre	esent?		Yes X		No
epth (inch narks: DROLOG	Υ						H	ydric Soil Pre	esent?		Yes X		No
epth (inch narks: DROLOG	·Y lydrology Indicators:		fficient)				H	ydric Soil Pre		ondary Ir		2 or mor	
epth (inch narks: DROLOG /etland H rimary Inc	y lydrology Indicators: dicators (any one indica		fficient)	Water-Sta	ained Le	eaves (B9			Seco		Yes X		e required
DROLOG Vetland H	lydrology Indicators: dicators (any one indicators (A1)		fficient)	_		•) (excep		Seco Wa		ndicators (;		e required
DROLOG /etland H rimary Inc Surface High	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2)		fficient)	MLRA	1, 2, 4A	eaves (B9) (excep		Secc Wa	ter-Stair 4A and	ndicators (: ned Leaves 4B)	s (B9) (N	e required
DROLOG Vetland H rimary Inc Surfa High V Satur	lydrology Indicators: dicators (any one indicators (A1) water Table (A2) ation (A3)		fficient)	MLRA Salt Crus	1, 2, 4A t (B11)	and 4B)) (excep		Seco Wa Dra	ter-Stair 4A and iinage P	ndicators (; ned Leave: 4B) latterns (B	s (B9) (N 10)	e required
DROLOG Vetland H rimary Inc High V Satura Watel	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1)		fficient)	MLRA Salt Crus Aquatic Ir	1, 2, 4A it (B11) nvertebra	and 4B)) (excep		Seco Wa Dra Dry	ter-Stair 4A and inage P -Seasor	ndicators (; ned Leaves 4B) latterns (B ²	s (B9) (N 10) able (C2)	e required
DROLOG Vetland H rimary Inc Surfar High V Satura Water Sedin	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2)		fficient)	MLRA Salt Crus Aquatic Ir Hydroger	1, 2, 4A et (B11) nvertebra n Sulfide	and 4B) ates (B13 Odor (C1) (excep	<u> </u>	Seco Wa Dra Dry Sat	ter-Stair 4A and inage P -Seasor uration	ndicators (: ned Leaves 4B) latterns (B' n Water Ta Visible on A	s (B9) (N 10) able (C2) Aerial Im	e required
DROLOG Vetland H rimary Inc Surfac High V Satura Wate Sedin Drift [ly lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)		fficient)	MLRA Salt Crus Aquatic Ir Hydrogen Oxidized	1, 2, 4A et (B11) nvertebra n Sulfide Rhizosp	and 4B) ates (B13 Odor (C1 heres alo) (except)) l) ng Living	· · · · · · · · · · · · · · · · · · ·	Seco Wa Dra Dry Sat X Geo	ter-Stair 4A and inage P -Seasor uration v omorphi	ndicators (: ned Leave: 4B) latterns (B' n Water Ta Visible on a	s (B9) (N 10) able (C2) Aerial Im (D2)	e required
DROLOG Vetland H rimary Inc Surfa High V Satura Water Sedin Drift E Algal	lydrology Indicators: dicators (any one indicators (Al) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		fficient)	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence	1, 2, 4A it (B11) invertebra in Sulfide Rhizosp e of Redu	ates (B13 Odor (C1 heres alo) (except)) I) Ing Living (C4)	Roots (C3)	Seco Wa Dra Dry Sat X Geo Sha	ter-Stair 4A and inage P -Seasor uration ' omorphi allow Aq	ndicators (: ned Leaves 4B) latterns (B' n Water Ta Visible on a c Position uitard (D3)	s (B9) (N 10) able (C2) Aerial Im (D2)	e required
Surfary Inc. Surfar High V Saturi Water Sedin Drift I Algal Iron I	dicators (any one indicators: dicators (any one indicators (ary one indicators (ary one indicators) (ary one indic		fficient)	MLRA Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir	1, 2, 4A at (B11) invertebra in Sulfide Rhizosp e of Redu	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P) (except)) I) ng Living (C4) Plowed Sc	Roots (C3)	Secondary War Draw Dry Satt X Geed Sha X FAC	ter-Stair 4A and inage P -Seasor uration ' cmorphi allow Aq C-Neutra	ndicators (2 ned Leaves 4B) latterns (Bandal Water Ta Visible on A c Position uitard (D3)	s (B9) (N 10) able (C2) Aerial Im (D2))	e required
DROLOG Vetland H rimary Inc Surfac High V Satura Watel Sedin Drift [Algal Iron [Surfac	lydrology Indicators: dicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6)	ator is sut		MLRA Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ire Stunted o	1, 2, 4A at (B11) invertebra in Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Secc Wa Dra Dry Sat X Geo Sha X FAO	ter-Stain 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant	ndicators (; ned Leaves 4B) ratterns (Br n Water Ta Visible on A c Position uitard (D3) al Test (D5	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required
DROLOG Vetland H rimary Inc Surfac High V Satura Wate Sedin Drift [Algal Iron [Surfac Inund	ly lydrology 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) ce Soil Cracks (B6) lation Visible on Aerial	ator is suf	(B7)	MLRA Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir	1, 2, 4A at (B11) invertebra in Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Secc Wa Dra Dry Sat X Geo Sha X FAO	ter-Stain 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant	ndicators (2 ned Leaves 4B) latterns (Bandal Water Ta Visible on A c Position uitard (D3)	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required ILRA 1, 2
DROLOG Vetland H rimary Inc Surfar High V Satura Vate Sedin Drift E Algal Iron E Surfar Inund Spars	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concav	ator is suf	(B7)	MLRA Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ire Stunted o	1, 2, 4A at (B11) invertebra in Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P ed Plants) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Secc Wa Dra Dry Sat X Geo Sha X FAO	ter-Stain 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant	ndicators (; ned Leaves 4B) ratterns (Br n Water Ta Visible on A c Position uitard (D3) al Test (D5	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required
DROLOG Vetland H rimary Inc Surfa High V Satura Vate Sedin Drift E Algal Iron E Surfa Inund Spars ield Obse	dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B3) In Mat or Crust (B4) Deposits (B5) In Cracks (B6) In Marks (B6) In Ma	Imagery ve Surface	(B7) e (B8)	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Secc Wa Dra Dry Sat X Geo Sha X FAO	ter-Stain 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant	ndicators (; ned Leaves 4B) ratterns (Br n Water Ta Visible on A c Position uitard (D3) al Test (D5	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required
DROLOG Vetland H Timary Inc Surfar High V Satura Vate Sedin Drift E Algal Iron E Surfar Inund Spars Surface Water	lydrology Indicators: dicators (any one indicators ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Yes	Imagery	(B7) e (B8)	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Secc Wa Dra Dry Sat X Geo Sha X FAO	ter-Stain 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant	ndicators (; ned Leaves 4B) ratterns (Br n Water Ta Visible on A c Position uitard (D3) al Test (D5	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required
DROLOG Vetland H Timary Inc Surfar High V Satura Vate Sedin Drift E Algal Iron E Surfar Inund Spars Surface Water	lydrology Indicators: dicators (any one indicators water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Yes e Present?	Imagery	(B7) e (B8)	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Seco Wa Dra Dry Sat X Geo Sha X FAO Rai Fro	ter-Stair 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant st-Heav	ndicators (3 ned Leaves 4B) latterns (B' n Water Ta Visible on a c Position luitard (D3) al Test (D5 Mounds (I e Hummod	s (B9) (N 10) able (C2) Aerial Im (D2)) 5) D6) (LRF	e required
DROLOG Vetland H rimary Inc Surfar High V Satura Water Sedin Drift E Algal Iron E Surfar Inund Spars ield Obse urface Water table aturation	lydrology Indicators: dicators (any one indicators water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Yes e Present?	Imagery	(B7)	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3)	Seco Wa Dra Dry Sat X Geo Sha X FAO Rai Fro	ter-Stair 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant st-Heav	ndicators (3 ned Leaves 4B) latterns (B' n Water Ta Visible on a c Position luitard (D3) al Test (D5 Mounds (I e Hummod	s (B9) (N 10) able (C2) Aerial Im (D2))))))))))))))	e required
DROLOG Vetland H Timary Inc Surfa High V Satura Vate Sedin Drift E Algal Iron E Surfa Inund Spars ield Obse staturation ncludes c	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Present? Yes Present? Yes	Imagery	(B7) e (B8) No X No X No X	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3) pils (C6) RR A) Wetland Hy	Seco Wa Dra Dry Sat X Geo Sha X FAO Rai Fro	ter-Stair 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant st-Heav	ndicators (3 ned Leaves 4B) latterns (B' n Water Ta Visible on a c Position luitard (D3) al Test (D5 Mounds (I e Hummod	s (B9) (N 10) able (C2) Aerial Im (D2))))))))))))))	e required
DROLOG Vetland H Timary Inc Surfa High V Satura Vate Sedin Drift E Algal Iron E Surfa Inund Spars ield Obse staturation ncludes c	lydrology Indicators: dicators (any one indicators A3)) water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Present? Present? Yes apillary fringe)	Imagery	(B7) e (B8) No X No X No X	MLRA Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	1, 2, 4A t (B11) nvertebra n Sulfide Rhizosp e of Redu on Redu or Stress xplain in (inches): (inches):	and 4B) ates (B13 Odor (C1 heres alo uced Iron uction in P ed Plants Remarks) (exception) I) Ing Living (C4) Plowed So	Roots (C3) pils (C6) RR A) Wetland Hy	Seco Wa Dra Dry Sat X Geo Sha X FAO Rai Fro	ter-Stair 4A and inage P -Seasor uration v omorphi allow Aq C-Neutra sed Ant st-Heav	ndicators (3 ned Leaves 4B) latterns (B' n Water Ta Visible on a c Position luitard (D3) al Test (D5 Mounds (I e Hummod	s (B9) (N 10) able (C2) Aerial Im (D2))))))))))))))	e required

Project/Site. Plas No	ewydd Farm- Lancaster Lake S	Stud Area	City/County.	. Clark Cour	ıty	Sampling	Date.	0/20/2014
Applicant/Owner: Plas No	ewydd Farm, LLC				State: WA	Sampling	Point:	23
Investigator(s): B. Had	daway, T.Stout		Section	n, Township,	, Range: S1, T4N, R1W			
Landform (hillslope, terrace	e, etc.): Floodplain		Local re	elief (concave	e, convex, none): none		Slope (%)): 0-1%
Subregion (LRR): Northw	est Forests and Coast (LRR A) Lat:	45.850967°	o	Long: 122.7746	06°	_ Datur	n: WGS 84
	Sauvie silt loam, sandy substr	-			NWI Classification	n: PEMC	_	
·	nditions on the site typical for t	his time of	/ear?	Yes >		(If no, explain	n in Remarl	(s)
•	, Soil, or Hydrology			_				•
	, Soil, or Hydrology							
	NGS – Attach site map s						,	
Hydrophytic Vegetation Pre	esent? YesNo	X	lo the S	ampled Area	_			
Hydric Soil Present?	Yes X No)		ampied Area	YAS	No X		
Netland Hydrology Presen	t? Yes No	Х						
known disturbance of soil a	levee protected floodplain of t and vegetation and dynamic na upport hydrophytic plants or fea	ture of larg	e river syste	ms, the delin				
VEGETATION								
		Absolute	Dominant	Indicator	Dominance Test worksh	eet:		
Tree Stratum (Use scient	tific names.)	% Cover	Species?	Status?	Number of Dominant Spec	cies		
1.	,		-	-	That Are OBL, FACW, or I	FAC:	2	(A)
2.					Total Number of Dominan	t		(' ')
3.			-		Species Across All Strata:		4	(B)
4.	-				Daniel of Daniel and One			(_)
	Total Cover:	0		-	Percent of Dominant Spec That Are OBL, FACW, or I		50%	(A/B)
Shrub Stratum					Prevalence Index Works	heet:		
1					Total % Cover of:	Mu	ıltiply by:	
2.					OBL species	x1 =	0	
3					FACW species	x2 =	0	
1.					FAC species 86	x3 =	258	
5.	<u> </u>				FACU species 60	x4 =	240	
	Total Cover:	0			UPL species	x5 =	0	
Herb Stratum					Column Totals: 146	(A)	498	(B)
1. Senecio jacobaea		10		FACU	Prevalence Index = B/A	_ ` `	.4	``
2. Trifolium repens		10		FAC				
B. Agrostis capillaris		40	Y	FAC	Hydrophytic Vegetation	Indicators:		
Plantago lanceolata		20		FACU	1 - Rapid Test fo		'egetation	
5. Trifolium pratense		20		FACU	2 - Dominance T		5	
6. Holcus lanatus		30		FAC	3 - Prevalence In			
7. Festuca arundinacea		5	<u>.</u>	FAC	4 - Morphologica		Provide sur	norting
B. Equisetum arvense		1		FAC	data in Remarks			Portung
	ım					•		
				17100				nin)
•					FIODICITIALIC MYO	opriyac vegeta	iuon (⊏xple	aii1)
· · · · · · · · · · · · · · · · · · ·	Total Course	146						
Woody Vine Stratum	Total Cover.	140			¹ Indicators of hydric soil ar be present, unless disturbe			t
					Hydronbytic			
	Total Cover:	0		-				
% Bare Grour			otic Crust	0		Yes	No X	
	<u>0</u> /0	20101 OI DI	Jao Oradi					
Woody Vine Stratum 1.	Total Cover:		otic Crust	FACU 0		rophytic Vegeta	ation ¹ (Expla rology must tic.	·

SOIL			Sampling Point:	23
Profile Desc	ription: (Describe to the de	pth needed to document the indicator or confirm the	e absence of indicators.)	
Depth	Matrix	Redox Features		

Depth	Matrix		Re	dox Featu	res				,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc	Texture		Remarks	S
0-8	10 YR 5/2		5 YR 4/4	10	С	М	SANDY LC			
			10 YR 5/1	5	D	М				
8-16	7.5 YR 5/2	80	5 YR 4/3	10	С	М	SANDY LC	AM		
			10 YR 4/4	5	С	М				
			10 YR 5/1	5	D	М				
1 _{Type: C=}	Concentration D=Der	lotion DM	I-Poduced Matrix	CS=Covo	rod or Co	natad S	and Crains 2Lo	ootion: DI	L=Pore Lining, M=Matr	
турс. О-	-concentration, b-bep	olotion, raivi	-reduced Matrix,	00-0070	100 01 00	balca o				
-	il Indicators: (Applic	able to all					Indicators		ematic Hydric Soils ³ :	
	osol (A1)			Redox (S5			-		Muck (A10)	
	Epipedon (A2)			d Matrix (S					Parent Material (TF2)	
	(Histic (A3)			-			pt MLRA 1)	Othe	er (Explain in Remarks)	
	ogen Sulfide (A4)			Gleyed Ma		()				
	eted Below Dark Surfa	ce (A11)		ed Matrix (,		3			
	Dark Surface (A12)			Dark Surfa	, ,			-	drophytic vegetation a	nd
	ly Muck Mineral (S1)			ed Dark Su		7)			ology must be present,	
	ly gleyed Matrix (S4)		Redox	Depressio	ns (F8)		u	nless distu	urbed or problematic.	
Restrictive	e Layer (if present):									
Type:										
Depth (incl	hes):						Hydric Soil Pre	sent?	Yes X	No
YDROLOG Wetland H	sY lydrology Indicators:	•								
	dicators (any one indic		ficient)					Secon	ndary Indicators (2 or m	ore required)
	ace Water (A1)		· · · · · · · · · · · · · · · · · · ·	Stained Le	aves (B9	9) (exc e	ept		er-Stained Leaves (B9)	
	Water Table (A2)			A 1, 2, 4A					A and 4B)	(,
	ration (A3)			ust (B11)		,	•		nage Patterns (B10)	
	er Marks (B1)			Invertebr	ates (B1	3)	•		Season Water Table (C	(2)
	ment Deposits (B2)			en Sulfide			-		ration Visible on Aerial	•
	Deposits (B3)				•	•	ing Roots (C3)		morphic Position (D2)	
	Mat or Crust (B4)			ce of Red		•	9		low Aquitard (D3)	
	Deposits (B5)					` '	Soils (C6)		-Neutral Test (D5)	
	ace Soil Cracks (B6)			or Stress					ed Ant Mounds (D6) (L	.RR A)
	dation Visible on Aerial	Imagery (Explain in		, ,			t-Heave Hummocks (D	
	sely Vegetated Conca					-,	-		(-	- /
	ervations:		(- /				1			
	ater Present? Yes	S	No X Dept	n (inches):						
	e Present? Yes			n (inches):						
Saturation		s	No X Dept	n (inches):			Wetland Hy	drology P	Present? Yes	No X
	capillary fringe) corded Data (stream g	lauge, mor	nitoring well, aerial	photos pr	evious in	spectio	ons) if available:			
					- 1.5u3 iii	. 5 0 0 110	,, ii avallabic.			
Remarks: W	ater table lies below de	epth criteria	a for wetland hydro	logy.						

Project/Site:	Plas Newydd Farm	- Lancaster Lake S	Stud Area	City/County:	: Clark Cour	nty			San	npling D	ate:	6/26/2014
Applicant/Owner:	Plas Newydd Farm	, LLC					State:	WA	San	npling P	oint:	24
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	S1, T4	N, R1W				
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none			Slope (%)	: <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	45.850967°	0		Long:	122.77460)6°		Datum	n: WGS 84
Soil Map Unit Nam								ssification:	none			
Are climatic / hydro	ologic conditions on t	he site typical for the	his time of y	/ear?	Yes	X	No		_(If no,	explain	in Remark	(s)
Are Vegetation	, Soil						lormal C	ircumstand	es" Pre	sent?	Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any a	nswers	in Rema	rks.)	
SUMMARY OF	FINDINGS – At	tach site map s	showing	sampling	point loca	ations, 1	ransec	ts, impo	rtant f	feature	s, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1									
Hydric Soil Presen		Yes X No			ampled Are		Yes	Х	No			
Wetland Hydrolog		Yes X No		within	a Wetland?		•					
Remarks:	,											
VEGETATION												
VEGETATION						I 						
			Absolute % Cover	Dominant Species?	Indicator Status?			t workshe				
,	se scientific names.)		70 COVE	Opecies:	Olalus !			nant Spec ACW, or F				
1				-			,	•	_		2	(A)
2					·			Dominant All Strata:			_	(5)
3.					·	Opecies	ACIOSS	All Strata.	_		2	(B)
4		T.1.1.0			- ——			nant Speci			2001	(A (D)
		Total Cover:	0			I nat Are	OBL, F	ACW, or F	AC: _	10	00%	(A/B)
Shrub Stratum						Provalo	nco Inde	ex Worksh	noot:			
1.							al % Co		ieet.	Multi	ply by:	
2.					·	OBL spe		vei oi.			0	_
3.							-				0	_
4.						FAC spe			_		0	_
5.					·						0	_
		Total Cover:	0			UPL spe			x5 =		0	_
Herb Stratum						Column	Totals:	0	_		0	(B)
1. Holcus lanatus	S		60	Υ	FAC			dex = B/A =		#DIV	/0!	<u> </u>
2. Agrostis capilla	aris		20	-	FAC							
3. Persicaria am	phibia		0.01		OBL	Hydrop	hytic Ve	getation lı	ndicato	rs:		
4. Equisetum arv	vense		0.01		FAC		1 - Rap	id Test for	Hydrop	hytic Ve	getation	
5. Festuca arund	dinacea		5		FAC	X		ninance Te				
6. Lotus cornicul	atus		30	Y	FAC	#####		valence Ind				
7. Alopecurus pr	atensis		5		FAC			phological	-	•	•	porting
8								Remarks		•		
					·			land Non-				
				-			Probler	matic Hydro	ophytic \	Vegetati	on' (Expla	ıin)
11			400.00		·							
\\\ d \\\: O	·	Total Cover:	120.02			1						
Woody Vine S	<u>stratum</u>							dric soil an ss disturbe				
1 2.								oo alatai De	a or pro	cmall	<u>~</u>	
<u></u>		Total Cover:	0			Hydrop						
% Pa	re Ground in Herb Si			otic Crust	0	Vegetat Present			Yes X		No	
Remarks:	ine Oround in Field S		OUVEL OF DI	one orași		1 163611	•		163 ^			
inciliaiks.												

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix Redox Features Depth (inches) Color (moist) Color (moist) Type¹ Loc² Texture Remarks 0-6 10 YR 5/2 30 5 YR 4/4 10 С М SANDY LOAM 50% COBBLE 7.5 YR 3/3 5 С M 5 D 10 YR 5/1 Μ 6-16 7.5 YR 5/2 5 YR 4/3 10 PL SANDY LOAM 85 Μ 7.5 YR 4/4 5 С Μ ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes Depth (inches): Yes X No (includes capillary fringe)

Remarks:

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

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling D	Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	25
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°			Long: 122.774606	5°	Datum:	WGS 84
Soil Map Unit Nam	ne: Washougal I	oam	· ·				NWI Classification:	none	-	
Are climatic / hydro	ologic conditions on the	ne site typical for th	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	lormal Circumstance			
Are Vegetation	, Soil						ded, explain any an	swers in Rema	arks.)	,
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, t	ransects, impo	tant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen		Yes X No			ampled Area a Wetland?	а	Yes X	No		
Wetland Hydrology	y Present?	Yes X No		WILIIII	a wellanu:		·			
Remarks: Samplin	g occurred when soil	saturation wouldn	't typically t	e observabl	le; hydrology	/ based or	n secondary indicato	ors		
VEGETATION										
			Absolute	Dominant	Indicator	Domina	nce Test workshee	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Number	of Dominant Specie	es		
1.	,			-		That Are	OBL, FACW, or FA	AC:	1	(A)
2.						Total Nu	ımber of Dominant			,
3.						Species	Across All Strata:		1	(B)
4.				-		Percent	of Dominant Specie			,
		Total Cover:	0				e OBL, FACW, or FA		00%	(A/B)
Shrub Stratum							nce Index Workshe			
1							al % Cover of:		tiply by:	-
2.				-		OBL spe			0	-
3							species		0	-
4				-		FAC spe		x3 =	0	_
5								x4 =	0	-
		Total Cover:	0			UPL spe		x5 =	0	-
Herb Stratum					E 4 O 14 /			(A)		(B)
1. Phalaris arund			100	Y	FACW	Preval	ence Index = B/A =	#DI\	//0!	-
2. Lotus cornicula			5		FAC					
3. Cirsium arvens			2		FAC	Hydrop	hytic Vegetation In			
4. Galium aparin			5		FACU		1 - Rapid Test for I		getation	
5. Rubus armeni	acus		5	-	FACU	<u> </u>	2 - Dominance Tes			
6				-	. ———	#####				
·							4 - Morphological A			orting
8				-			data in Remarks of	•	. ,	
9.				-			5 - Wetland Non-V			
							Problematic Hydro	phytic Vegetat	ion (Explain	1)
11				-	. ———					
		Total Cover:	117			1				
Woody Vine S 1.	<u>tratum</u>						ors of hydric soil and ent, unless disturbed			
2.					-	·		,		
-		Total Cover:	0			Hydrop Vegetat				
% Ra	re Ground in Herb Str			otic Crust	0	Present		Yes X	No	
Remarks:				5.400				<u>//</u>		
ivemaiks.										

	scription: (Describe	to the de	enth needed to do	cument th	e indica	or or co	ofirm the absen	Sampling F		
Depth	Matrix	to the ac	-	edox Featu		.01 01 001	mini the absent	cc or maicators	·.,	
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	- Texture		Remark	e
i-4	10 YR 3/2	100	Color (Moist)		Турс		SILT LOAM	_	reman	3
-7 -7	10 YR 4/2	85	10 YR 4/4	5	С	M	SILT LOAM	_		
			5 YR 3/4	5	C	M				
	-		10 YR 5/1	5	D	M		_		
-16	10 YR 4/2	90	10 YR 4/4	5	С	M	SILT LOAM	_		
			10 YR 5/1	5	D	М				
ype: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix	, CS=Cove	red or Co	ated San	d Grains. ² Loca	ation: PL=Pore L	_ining, M=Mati	ix.
vdric So	il Indicators: (Applic	cable to a	II I RRs unless o	therwise n	oted)		Indicators fo	or Problematic F	Hydric Soils ³ :	
	sol (A1)			Redox (S	-			2 cm Muck (A	-	
_	Epipedon (A2)			ed Matrix (Material (TF2)	
	Histic (A3)			Mucky Mi) (except	MLRA 1)		in in Remarks)
	ogen Sulfide (A4)			Gleyed M			, <u> </u>	_ ` '	•	
	eted Below Dark Surfa	ace (A11)		ted Matrix (•				
Thick	Dark Surface (A12)		Redox	Dark Surf	ace (F6)		³ Indicato	ors of hydrophyti	ic vegetation a	ind
Sand	y Muck Mineral (S1)		Deple	ted Dark Si	urface (F	7)	wetla	nd hydrology mu	ust be present	
Sand	y gleyed Matrix (S4)		Redox	Depression	ns (F8)		unle	ess disturbed or	problematic.	
estrictive	e Layer (if present):									
ype:										
	hes):					н	ydric Soil Prese	ent?	Yes X	No
narks:						н	ydric Soil Prese	ent?	Yes X	No
narks:		:				Н	ydric Soil Prese	ent?	Yes X	No
DROLOG Vetland H	iY Iydrology Indicators: dicators (any one indic							Secondary Ind	dicators (2 or r	nore required
DROLOG /etland H rimary Ind	sy lydrology Indicators: dicators (any one indic nce Water (A1)		Water	-Stained Le		excep		Secondary Ind	dicators (2 or r	nore required
DROLOG /etland H rimary Ind Surfa High	dicators (any one indicators (any one indicators (A1) Water Table (A2)		Water ML I	RA 1, 2, 4A		excep		Secondary Ind Water-Staine 4A and 4	dicators (2 or r ed Leaves (B9	nore required
DROLOG Vetland H rimary Ind Surfa High V	dicators (any one indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3)		Water MLI Salt C	RA 1, 2, 4A rust (B11)	and 4B	9) (excep		Secondary Ind Water-Staine 4A and 4I Drainage Pat	dicators (2 or red Leaves (B9 B) tterns (B10)	nore required
DROLOG Vetland H rimary Inc Surfa High Satur Wate	lydrology Indicators: dicators (any one indicators (A1) water Table (A2) ration (A3) or Marks (B1)		Water MLi Salt C Aquati	RA 1, 2, 4 A rust (B11) c Invertebr	and 4B	9) (excep)		Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (nore required) (MLRA 1, 2
DROLOG Vetland H rimary Inc Surfa High Satur Wate Sedin	dicators (any one indicators: dicators (any one indicators (any one indicators (A1)) Water Table (A2) Pation (A3) Patrion (A3) Patrion (B1) Patrion (B2)		Water MLi Salt C Aquati Hydro	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide	and 4B rates (B13 Odor (C	9) (excep)	t	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (visible on Aeria	nore required) (MLRA 1, 2
DROLOG /etland H rimary Inc Surfa High Satur Wate Sedin Drift [dicators (any one indicators) dicators (any one indicators) dice Water (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3)		Water MLI Salt C Aquati Hydro Oxidiz	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp	and 4B rates (B13 e Odor (Coheres al	9) (excep) 3) 1) ong Living		Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (disible on Aeria Position (D2)	nore required) (MLRA 1, 2
DROLOG Vetland H rimary Inc Surfa High Satur Wate Sedin Drift [Algal	dicators (any one indicators: dicators (any one indicators (A1)) Water Table (A2) ration (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		Water MLI Salt C Aquati Hydro Oxidiz Prese	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red	ates (B1: Odor (Cobheres alduced Iron	9) (excep) 3) 1) ong Living	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (isible on Aeria Position (D2)	nore required) (MLRA 1, 2
DROLOG Vetland H rimary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [dicators (any one indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		Water MLI Salt C Aquati Hydro Oxidiz Prese Recer	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	and 4B rates (B13 Odor (Cobheres alouced Iron ruction in I	9) (excep) 3) 1) ong Living i (C4) Plowed Se	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (isible on Aeria Position (D2) itard (D3) Test (D5)	nore required) (MLRA 1, 2 C2) Imagery (C9
DROLOG Vetland H rimary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [Surfa	dicators (any one indicators: dicators (any one indicators (any one indicators) (are Water (A1)) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) are Soil Cracks (B6)	cator is su	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	P) (except) 3) 1) 2) 2) 3) 1) 2) 3) 4) 4) 4) 4) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (disible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (I	C2) Imagery (C9
DROLOG Vetland H rimary Inc Surfa High Satura Wate Sedin Drift [Algal Iron [Surfa Inund	dicators (any one indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ice Soil Cracks (B6) dation Visible on Aerial	cator is su	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	P) (except) 3) 1) 2) 2) 3) 1) 2) 3) 4) 4) 4) 4) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (isible on Aeria Position (D2) itard (D3) Test (D5)	C2) Imagery (C9
DROLOG Vetland H rimary Inc Surfa High V Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars	dicators (any one indicators: dicators (any one indicators (any one indicators) dice Water (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) dec Soil Cracks (B6) dation Visible on Aerial sely Vegetated Concar	cator is su	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	and 4B rates (B13 rates (Cooperes alouced Iron uction in I	P) (except) 3) 1) 2) 2) 3) 1) 2) 3) 4) 4) 4) 4) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (disible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (I	C2) Imagery (C9
DROLOG Vetland H rimary Inc Surfa High V Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars ield Obse	dicators (any one indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ice Soil Cracks (B6) dation Visible on Aerial	cator is su I Imagery ve Surfac	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8)	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in	and 4B ates (B13 Odor (Coheres ald uced Iror uction in I sed Plant Remarks	P) (except) 3) 1) 2) 2) 3) 1) 2) 3) 4) 4) 4) 4) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	g Roots (C3) X	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (disible on Aeria Position (D2) itard (D3) Test (D5) Mounds (D6) (I	C2) Imagery (C9
Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars	dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ration (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ince Soil Cracks (B6) Idation Visible on Aerial (B6) Idation Vegetated Concatervations:	I Imagery ve Surfac	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8) No X Dep	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	and 4B rates (B13 rate	P) (except) 3) 1) 2) 2) 3) 1) 2) 3) 4) 4) 4) 4) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	g Roots (C3) X poils (C6) X RR A)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or red Leaves (B9 B) tterns (B10) Water Table (Good of the content of	C2) Imagery (C9

Remarks:

Project/Site:	Plas Newydd Farm- Lanca	ster Lake S	tud Area	City/County:	Clark Cou	nty			Samplin	g Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm, LLC						State:	WA	Samplin	g Point:	26
Investigator(s):	B. Haddaway, T.Stout			Section	n, Township	, Range:	S1, T4	N, R1W			
Landform (hillslope	e, terrace, etc.): Flood	Iplain		_ Local re	elief (concav	e, convex	, none):	none		Slope (%):	: 0-1%
Subregion (LRR):	Northwest Forests and Co.	ast (LRR A)	Lat:	45.850967°)		Long:	122.77460	6°	Datum	n: WGS 84
Soil Map Unit Nam	e: Washougal loam						NWI Cla	ssification:	PEMC		
Are climatic / hydro	ologic conditions on the site	typical for tl	nis time of	year?	Yes	X	No		(If no, expla	ain in Remark	s)
Are Vegetation	, Soil, or H					Are "N	Iormal C	ircumstanc	es" Present	? Yes <u>X</u>	No
Are Vegetation	, Soil, or H	lydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any ar	swers in Re	marks.)	
SUMMARY OF	FINDINGS - Attach s	ite map s	howing	sampling	point loc	ations, 1	ransec	ts, impo	rtant feat	ures, etc.	
Hydrophytic Vegeta	ation Present? Yes 2	X No		1.4.0							
Hydric Soil Present	t? Yes 2	X No			ampled Are a Wetland?		Yes		No X		
Wetland Hydrology	Present? Yes	No	Χ								
relic hydric soils, ar Prevelance index s hydrological indicar Methods section.	icated in levee protected floo nd the presence of plant cor score),the delineation of wet tors. Plot appears to lack we	nmunities to land bound	nat meet w aries is larg	etland indica jely based o	ator, but do i n hydrologic	nclude se al indicato	veral spe ors. Plot	ecies that a does not su	re primarily upport hydro	upland (note 3 phytic plants o	3.7 or feature
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshe	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?			nant Speci			
1. Fraxinus latifol	ia		10	Υ	FACW	That Are	e OBL, F	ACW, or F	AC:	4	(A)
2. Quercus garry	ana		50	Υ	FACU			Dominant			
 Pseudotsuga r 	menziesii		5		FACU	Species	Across	All Strata:		7	(B)
4						Percent	of Domi	nant Specie	es		
	Т	otal Cover:	65			That Are	e OBL, F	ACW, or F	AC:	57%	_(A/B)
Shrub Stratum					E4.011			ex Worksh			
1. Rubus armenia			80		FACU	-	tal % Co	ver of:		/lultiply by:	_
2. Acer circinatur	n		20	<u>Y</u>	FAC	OBL spe			_x1 =	0	_
3				-	·	FACW s		10	_x2 =	20	_
4						FAC spe		40 150	_x3 = x4 =	120 600	_
5	Т	otal Cover:	100			UPL spe		130	_x4 = x5 =	0	_
Herb Stratum	'	otal Gover.	100			Column		200	(A)	740	— (B)
1. Lotus cornicula	atus		10	Υ	FAC				· · /	3.7	_(5)
Galium aparine				Y	FACU	11014	101100 1110	ion Birt		<u> </u>	_
Cirsium arvens				Y	FAC	Hydrop	hvtic Ve	getation In	dicators:		
4.						,	•	•	Hydrophytic	Vegetation	
					· 	X		ninance Te		J	
6							3 - Prev	valence Ind	ex is ≤3.0 ¹		
7							4 - Mor	phological a	Adaptation1	(Provide supp	porting
								_	r on a sepa		
_							5 - Wet	land Non-V	/ascular Pla	nts ¹	
							Probler	natic Hydro	phytic Vege	etation ¹ (Expla	in)
	Т	otal Cover:	35								
Woody Vine St	<u>tratum</u>								d wetland hy d or problem	drology must natic.	
2						Hydrop	hytic				
		otal Cover:				Vegetat	-				
% Baı	re Ground in Herb Stratum _	0 %	Cover of Bi	otic Crust	0	Present	?		Yes X	No	
Remarks: Vegetati	on does not meet Prevalend	ce Index									

10 YR 5/1 5 D M	Remarks
10 YR 3/2 100 SILT LOAM 10 YR 4/2 90 10 YR 4/4 5 C M SILT LOAM 10 YR 5/1 5 D M	Remarks
10 YR 4/2 90 10 YR 4/4 5 C M SILT LOAM 10 YR 5/1 5 D M	
10 YR 5/1 5 D M	
	
e: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Po	re Lining, M=Matrix.
ric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problemat	•
Histosol (A1) Sandy Redox (S5) 2 cm Muc	` '
	nt Material (TF2)
	plain 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) ³ Indicators of hydrop	•
Sandy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology	must be present,
Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed	or problematic.
rictive Layer (if present):	
th (inches): Hydric Soil Present?	Yes X No
OLOGY	
land Hydrology Indicators:	
•	Indicators (2 or more require
nary Indicators (any one indicator is sufficient) Secondary	ained Leaves (B9) (MLRA 1,
	inica Ecaves (BS) (INEIXA 1,
	, , ,
Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and	, , ,
Surface Water (A1)Water-Stained Leaves (B9) (exceptWater-Stained Leaves (B9) (exceptHigh Water Table (A2)MLRA 1, 2, 4A and 4B)4A and 4A and 4B)Saturation (A3)Salt Crust (B11)Drainage	d 4B)
Surface Water (A1)Water-Stained Leaves (B9) (exceptWater-StaHigh Water Table (A2)MLRA 1, 2, 4A and 4B)4A and 4BSaturation (A3)Salt Crust (B11)DrainageWater Marks (B1)Aquatic Invertebrates (B13)Dry-Seas	d 4B) Patterns (B10) on Water Table (C2)
Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Seas Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation	d 4B) Patterns (B10) on Water Table (C2)
Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2)
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) Algal Mat or Crust (B4) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Presence of Reduced In (C1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Presence of Reduced In (C1) Water-Stained Leaves (B9) (except A part of the stained Leaves (B9) (except Presence of Reduced In (C1) Water-Stained Leaves (B9) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of the stained Leaves (B1) (except A part of	d 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (Chic Position (D2) equitard (D3)
Surface Water (A1) Water-Stained Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B12) (except Water Leaves (B1	d 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5)
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) Aquatic Invertebrates (B13) Dry-Seas 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) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Page 14 A and 4B) Drainage Saturation Oxidized Rhizospheres along Living Roots (C3) Geomorp Shallow A Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neuronal Raised And And And And And And And And And An	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A)
Surface Water (A1) Water-Stained Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B9) (except Water Leaves (B1)) (except Wat	d 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5)
Surface Water (A1) Water-Stained Leaves (B9) (except Leaves (B9) (except Water-Stained Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9)) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9)) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B9) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1)) (except Leaves (B1	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except A and 4B) A and 4B Ory-Sease Squartion (C1) Saturation Oxidized Rhizospheres along Living Roots (C3) Geomorphy Saturation Secundary Roots (C3) Fachalised Arguer (B4) Other (Explain in Remarks) Frost-Heaves (B4) Sparsely Vegetated Concave Surface (B8)	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A)
Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 5A are Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Seas Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow All Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neur Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised All Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heat	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A)
Surface Water (A1) Water-Stained Leaves (B9) (except Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Sease Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphy Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Allow Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) FAC-Neuronal Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised And Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heat Sparsely Vegetated Concave Surface (B8) d Observations: face Water Present? Yes No X Depth (inches):	d 4B) Patterns (B10) on Water Table (C2) n Visible on Aerial Imagery (Chic Position (D2) equitard (D3) tral Test (D5) nt Mounds (D6) (LRR A) ave Hummocks (D7)

Project/Site:	Plas Newydd Farm	- Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty			Samp	oling Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm	, LLC					State:	WA	Samp	oling Point:	27
Investigator(s):	B. Haddaway, T.St	out		Section	n, Township	, Range:	S1, T4I	N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	, none):	none		Slope (%): <u>0-1%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A)	Lat:	45.850967°)		Long:	122.77460	6°	Datu	m: WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam					NWI Cla	ssification:	none		
Are climatic / hydro	ologic conditions on t	he site typical for t	nis time of y	/ear?	Yes 2	X	No		(If no, ex	xplain in Remai	ks)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	lormal C	ircumstance	es" Prese	ent? Yes X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	swers in	Remarks.)	
SUMMARY OF	FINDINGS - At	tach site map s	showing	sampling	point loca	ations, 1	ransed	cts, impo	rtant fe	atures, etc.	
Hydrophytic Veget	ation Present?	Yes X No									
Hydric Soil Presen		Yes X No			ampled Are	а	Yes	Χ	No		
Wetland Hydrolog		Yes X No		within	a Wetland?		•				
Remarks:											
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nca Tas	st workshe	at·		
T Ot (11	:::		% Cover		Status?			inant Specie			
,	se scientific names.)							ACW, or FA		2	(A)
1.						Total Ni	ımbar of	Dominant			(A)
2. 3.					· ——			Dominant All Strata:		2	(B)
3. 4					· ——						(D)
٠		Total Cover:	0		· 			nant Specie ACW, or F		100%	(A/B)
		Total Cover.				mat Ait	OBL, I	ACW, OI 17	-to	100 /6	(A/D)
Shrub Stratum						Prevale	nce Inde	ex Worksh	eet:		
Salix lasiandra	9		30	Υ	FACW		tal % Co			Multiply by:	
2.	•			-		OBL spe			x1 =	0	
3.				-						0	
4.						FAC spe				0	
5.						FACU s				0	
		Total Cover:	30			UPL spe	ecies		x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Phalaris arund	dinacea		100	Υ	FACW	Preva	lence Ind	dex = B/A =		#DIV/0!	
2											
3						Hydrop	hytic Ve	getation In	dicators	:	
4										tic Vegetation	
5						X		ninance Te			
6						#####		valence Ind			
7									•	n1 (Provide su	pporting
										parate sheet)	
								tland Non-V			
					· 		Probler	matic Hydro	phytic Ve	egetation ¹ (Exp	ain)
11											
		Total Cover:	100			1					
Woody Vine S	<u>stratum</u>							dric soil and ss disturbed		hydrology mus	t
1.					-	ne brese	ent, unie	ss disturbed	or probi	emanc.	
2		Total Carre			. ———	Hydrop					
0/ D-	ro Ground in Harb Ca	Total Cover:		otio Crust	0	Vegetat Present			Voc V	Al-	
	re Ground in Herb St	.iatuiii <u> </u>	Cover of Bl	otic Crust	<u> </u>	Fresent	ır		Yes X	No	
Remarks:											

D = 41-	N 4 = 4			Daday Faat						
Depth _	Matrix			Redox Featu		. 2	-			
(inches)	Color (moist)	<u>%</u>	Color (Type ¹	Loc ²		<u> </u>	Remarks	
0-6 4	4/N	85	7.5 YR 3/		<u>C</u>	<u>M</u>	SCL			
			7.5 YR 3/		<u>C</u>	PL				
6-16 <u>4</u>	4/N	60	5 YR 3/4	30	<u>C</u>	<u>M</u>	SCL			
			5 YR 3/4		<u>C</u>	PL	_			
Гуре: С=Соі	ncentration, D=De	oletion, RI	M=Reduced	d Matrix, CS=Cove	red or Co	ated Sa	ind Grains. ² Lo	ocation: PL=Pore L	ining, M=Matrix.	
ydric Soil Ir	ndicators: (Applic	cable to a	II LRRs, u	nless otherwise n	oted.)		Indicators	for Problematic I	Hydric Soils ³ :	
Histosol	(A1)			Sandy Redox (S	5)			2 cm Muck (A	\ 10)	
Histic Ep	pipedon (A2)			Stripped Matrix (S	S6)			Red Parent N	/laterial (TF2)	
Black Hi	istic (A3)			Loamy Mucky Mi	neral (F1)	(excep	ot MLRA 1)	Other (Explai	n in Remarks)	
Hydroge	en Sulfide (A4)		X	Loamy Gleyed M	atrix (F2))	•			
Depleted	d Below Dark Surfa	ce (A11)	<u>-</u>	Depleted Matrix ((F3)					
Thick Da	ark Surface (A12)			Redox Dark Surfa	ace (F6)		³ Indic	ators of hydrophyti	c vegetation and	
	Muck Mineral (S1)			Depleted Dark St		7)		tland hydrology mu	=	
_	leyed Matrix (S4)			Redox Depression		,		inless disturbed or		
estrictive La				•	• ,					
	ayei (ii pieseiii).									
	ayer (ii present).									
ype: epth (inches							Hydric Soil Pre	esent?	Yes <u>X</u>	No
ype: Depth (inches marks:							Hydric Soil Pre	esent?	Yes <u>X</u>	No
ype: lepth (inches marks:	5):						Hydric Soil Pre	esent?	Yes X	No
ype: Depth (inches marks: DROLOGY Vetland Hyd	s):		fficient)				Hydric Soil Pre			
ype: pepth (inches marks: DROLOGY Vetland Hyd rimary Indica	Irology Indicators		fficient)	Water-Stained L	eaves (BQ			Secondary Ind	licators (2 or more	e requirec
ype: epth (inches marks: DROLOGY Vetland Hyd rimary Indica Surface	Irology Indicators ators (any one indic		fficient)	Water-Stained Le) (exce		Secondary Ind	licators (2 or more	e requirec
DROLOGY Vetland Hyd Surface High Wa	Irology Indicators ators (any one indic Water (A1) ater Table (A2)		fficient)	MLRA 1, 2, 4A) (exce		Secondary Ind Water-Staine 4A and 4	licators (2 or more d Leaves (B9) (M	e requirec
ppe: pepth (inches marks: DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatio	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3)		fficient)	MLRA 1, 2, 44 Salt Crust (B11)	and 4B))) (exce		Secondary Ind Water-Staine 4A and 4I	licators (2 or more d Leaves (B9) (M B) tterns (B10)	e required
pype: pepth (inches marks: DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatio Water M	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) farks (B1)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr	and 4B))) (exce		Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V	dicators (2 or more d Leaves (B9) (M B) terns (B10) Water Table (C2)	e required
DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatic Water M Sedimer	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	and 4B) rates (B13 rates (C1	(exce	pt	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V	dicators (2 or more and Leaves (B9) (M B) terns (B10) Water Table (C2) sible on Aerial Im	e required
DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatic Water M Sedimen Drift Dep	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	and 4B) rates (B13 e Odor (C2 cheres alo	i) (exce	pt	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic	licators (2 or more de Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2)	e required
DROLOGY Vetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	ates (B13 e Odor (C´ oheres alo	(C4)	pt	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui	licators (2 or more de Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3)	e required
DROLOGY Vetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		fficient)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	ates (B13 Odor (C2 Oheres alo uced Iron uction in F	(C4)	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral	dicators (2 or more ded Leaves (B9) (MB) terns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5)	e required ILRA 1, 2
DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	cator is su		MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	3) 1) 1) ong Livir (C4) Plowed S	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or more of Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5) Hounds (D6) (LRR	e required ILRA 1, 2
DROLOGY Vetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	cator is su	(B7)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	3) 1) 1) ong Livir (C4) Plowed S	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or more ded Leaves (B9) (MB) terns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5)	e required ILRA 1, 2
Type: Depth (inches marks: DROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	cator is su	(B7)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	3) 1) 1) ong Livir (C4) Plowed S	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or more of Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5) Hounds (D6) (LRR	e required ILRA 1, 2
Type: Depth (inches marks: TOROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observa	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	cator is su I Imagery ve Surfac	(B7) e (B8)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F sed Plants Remarks	3) 1) 1) ong Livir (C4) Plowed S	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or more of Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5) Hounds (D6) (LRR	e required
Type: Depth (inches marks: TOROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Observa	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca vations: er Present? Ye	I Imagery ve Surfac	(B7)e (B8)	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	and 4B) rates (B13 rates (C ² oheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed S (D1) (Living)	pt ing Roots (C3) Soils (C6)	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or more of Leaves (B9) (MB) Iterns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5) Hounds (D6) (LRR	e required
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DROLOGY Vetland Hyd rimary Indica Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely ield Observatoricurface Water Vater table P aturation Pre ncludes capi	Irology Indicators ators (any one indic Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca vations: er Present? Ye Present? Ye esent? Ye	I Imagery ve Surfaces s s X X	(B7)e (B8)No	MLRA 1, 2, 4A 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)	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F rated Plants Remarks	(C4) Plowed S (D1) (LS)	pt ing Roots (C3) Soils (C6) RR A) Wetland Hy	Secondary Ind Water-Staine 4A and 4I Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M Frost-Heave	dicators (2 or more de Leaves (B9) (MB) terns (B10) Water Table (C2) sible on Aerial Imposition (D2) tard (D3) Test (D5) Hounds (D6) (LRR Hummocks (D7)	e required

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling D	Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	28
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	lief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	- 45.850967°			Long: 122.774606		=	WGS 84
Soil Map Unit Nam	e: Sauvie silty	clay loam	-				NWI Classification:	none	_	
Are climatic / hydro	ologic conditions on the	ne site typical for th	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	i)
Are Vegetation	, Soil	, or Hydrology	•	significantly	disturbed?	Are "N	lormal Circumstance			
Are Vegetation	, Soil						ded, explain any an			
SUMMARY OF	FINDINGS - Att	_					ransects, impoi	tant featur	es, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No		la tha C						
Hydric Soil Presen	t?	Yes X No			ampled Area a Wetland?	а	Yes X	No		
Wetland Hydrology	/ Present?	Yes X No	-	Within	a Welland:					
Remarks:										
VEGETATION										
			A la a la da	Daminant	la dia atau	Domino	nce Test workshee			
			Absolute % Cover	Dominant Species?	Indicator Status?		of Dominant Specie			
	se scientific names.)						OBL, FACW, or FA		_	
1								····	3	_(A)
2					. ———		Imber of Dominant Across All Strata:		_	(D)
3.					. ———	Орсскоз	ACIOSS All Otlata.	-	3	_(B)
4							of Dominant Specie			
		Total Cover:	0			That Are	OBL, FACW, or FA	AC: <u>1</u>	00%	(A/B)
Ohmile Otractions						Daniela				
Shrub Stratum							nce Index Worksho		e.i. b	
1.							al % Cover of:		tiply by:	_
2.						OBL spe			0	_
3.			-				species		0	-
4. 		 -				FAC spe		x3 =	0	_
5		Total Cover:	0		. ———	UPL spe		x4 =	0	=
Herb Stratum		Total Cover.				•			0	(B)
1. Phalaris arund	linacea		15		FACW		ence Index = B/A =	(A)		_(D)
Eleocharis pale			25		OBL	i ieva	ence muex - b/A -	#DIV	770:	-
Alopecurus pra			30		FAC	Hydron	hytic Vegetation In	dicators:		
Lysimachia nu				Y	FACW	Пушор	1 - Rapid Test for I		anetation	
5. Persicaria hydi			5		OBL		2 - Dominance Tes		gotation	
6. Galium trifidun			5		FACW	#####				
7.	,				. ———		4 - Morphological A		rovide supp	orting
8.							data in Remarks of			orang
9.							5 - Wetland Non-V	•	. '	
-					. ———		Problematic Hydro			n)
					. ———		1 robiomado riyaro	priyao vogotat	ion (Explain	',
· · · <u> </u>		Total Cover:	110		. ———					
Woody Vine S	tratum	10101 00101.				1Indicate	ors of hydric soil and	wetland hydro	alogy must	
1.	tratarri						ent, unless disturbed			
2.						·				
		Total Cover:	0			Hydrop				
% Rai	re Ground in Herb Str			otic Crust	0	Vegetat Present		Yes X	No	
Remarks:	C.Cana in Ficib Oli	0 /0 /	20101 OI DI	ono orași			•	. 00 <u>//</u>	No	
ivelliaiks.										

			-				nfirm the ab		•		
epth	Matrix			Redox Featu		2	_				
nches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Textu			Remarks	
5	4/N	80	5 YR 4/3	10	<u>C</u>	M	SILT LOA	<u> </u>			
			5 YR 3/4		<u>C</u>	M					
10			5 YR 3/4		<u>C</u>	PL					
16	<u>5/N</u>	70	5 YR 3/4		<u>C</u>	M	SILT LOA	AIVI			
	<u> </u>		5 YR 4/3 5 YR 4/3	<u>5</u> 5	<u>C</u> C	M PL					
	_		3 11(4/3		<u> </u>	<u> </u>	_				
· · · · · · · · · · · · · · · · · · ·	Concentration D-Day	letien DA	4-Dadwaad Mate	iv 00-0eve		atad Can	d Crains 2	tion: F	DI Dava Lini	ing M-Matrix	
	Concentration, D=Depl					aled Sar					
	oil Indicators: (Application	able to a			-		Indicator		lematic Hyd		
_	osol (A1)			dy Redox (S					m Muck (A10		
_	c Epipedon (A2)			ped Matrix (, .			d Parent Mat		
	k Histic (A3)			ny Mucky Mi			MLRA 1)	Oth	er (Explain i	n Remarks)	
	rogen Sulfide (A4)			ny Gleyed M							
	eted Below Dark Surfac	ce (A11)		eted Matrix	. ,		31	:46 1-			
	k Dark Surface (A12)			ox Dark Surf						egetation and	
_	dy Muck Mineral (S1)			eted Dark S)	W	•	rology must		
	dy gleyed Matrix (S4)		Red	ox Depression	ons (F8)	ī		uniess disi	turbed or pro	obiematic.	
Strictiv	e Layer (if present):										
	ches):					Н	ydric Soil Pi	resent?	Y	'es X	No
/pe: epth (inc	ches):					н	ydric Soil Pi	resent?	Y	'es X	No
epth (inconarks:	GY.					н	ydric Soil Pi	resent?	Y	/es_X	No
DROLOG	GY Hydrology Indicators:					Н	ydric Soil Pi				
epth (inconarks: DROLOG etland Frimary In	GY Hydrology Indicators: adicators (any one indica		•					Seco	ondary Indica	ators (2 or mor	re required
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PROLOGIES Surfa	Hydrology Indicators: adicators (any one indicators (A1) Water Table (A2)		Wat	LRA 1, 2, 4 <i>A</i>) (excep		Seco Wai	ondary Indica ter-Stained I 4A and 4B)	ators (2 or mor Leaves (B9) (I	e required
PROLOGICATION OF THE PROPERTY	Hydrology Indicators: adicators (any one indicators (A1) Water Table (A2) ration (A3)		Wat M Salt	LRA 1, 2, 4 Crust (B11)	A and 4B)) (excep		Seco War	ondary Indica ter-Stained I 4A and 4B) iinage Patter	ators (2 or mor Leaves (B9) (f	e required
PROLOGI Setland Frimary In Surfa High Satu Wate	Hydrology Indicators: Idicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		Wat M Salt Aqu	LRA 1, 2, 4 Crust (B11) atic Invertebi	A and 4B) rates (B13) (excep		Seco Wai	ondary Indica ter-Stained I 4A and 4B) hinage Patter -Season Wa	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2	e required
PROLOGO Vetland H Surfa High Satu Wate Sedi	Hydrology Indicators: adicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Wat M Salt Aqui	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide	A and 4B) rates (B13 e Odor (C1) (excep	t	Seco Wai	ondary Indica ter-Stained I 4A and 4B) inage Patter -Season Wa uration Visib	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In	e required
PROLOGIC PRO	Hydrology Indicators: adicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		Wat Salt Aqui Hydi X Oxice	LRA 1, 2, 4A Crust (B11) atic Invertebrogen Sulfide ized Rhizos	A and 4B) rates (B13 e Odor (C2 oheres alo) (excep		Seco Wat Dra Dry X Satu X Geo	ondary Indica ter-Stained I 4A and 4B) ninage Patter r-Season Wa uration Visib omorphic Po	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2)	e required
PROLOGICATION OF THE PROPERTY	Hydrology Indicators: Indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) Indicators (B3) I Mat or Crust (B4)		Wat M Salt Aqui Hydi X Oxic	LRA 1, 2, 4A Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red	and 4B) rates (B13 e Odor (Cr oheres alo) (excep) I) ing Living (C4)	t g Roots (C3)	Seco War Dra Dry X Satu X Geo Sha	endary Indica ter-Stained I 4A and 4B) iinage Patter -Season Wa uration Visib omorphic Po allow Aquitar	ators (2 or mor Leaves (B9) (II rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3)	e required
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PROLOGI Vetland Hrimary In Surfa High Satu Wate Sedii Drift Algal Iron I	Hydrology Indicators: adicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	Wate M Salt Aqui Hydr X Oxic Pres Reco Stur	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ted or Stress	Tates (B13 e Odor (C' oheres alo luced Iron luction in F sed Plants) (excep l) l) ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3)	Seco Wai Dra Dry X Sati X Geo Sha FAO Rais	ondary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LR	re required MLRA 1, 2) nagery (CS
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PROLOCION (Inc.) PROLOCION (Inc.) Primary In	Hydrology Indicators: Indicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) I water Table (A2) I ment Deposits (B1) I ment Deposits (B3) I Mat or Crust (B4) Deposits (B5) I mat or Crust (B4) I mat	ator is su	Wate Wate	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ted or Stress	Tates (B13 e Odor (C' oheres alo luced Iron luction in F sed Plants) (excep l) l) ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3)	Seco Wai Dra Dry X Sati X Geo Sha FAO Rais	ondary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LR	re required MLRA 1, 2) nagery (CS
PROLOGICATION OF THE PROPERTY	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial rely Vegetated Concaverservations:	ator is su Imagery re Surface	Wat M Salt Aqua Hydri Y Oxid Pres Reco Stur (B7) Other C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) C (B8) (B8) C (B8)	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ted or Stresser (Explain in	Tates (B13 e Odor (Croheres ald luced Iron luction in F sed Plants Remarks) (excep l) l) ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3)	Seco Wai Dra Dry X Sati X Geo Sha FAO Rais	ondary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LR	ne required MLRA 1, 2 nagery (CS
PROLOGICATION (Incomparison Comparison rology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaverservations: Vater Present?	Imagery	Wate Wate Wate Wate Wate Management Managem	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ted or Stresser (Explain in	Tates (B13 e Odor (C ² oheres ald luced Iron luction in F sed Plants Remarks) (excep l) l) ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3)	Seco Wai Dra Dry X Sati X Geo Sha FAO Rais	ondary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LR	ne required MLRA 1, 2 nagery (CS	
PROLOGETANDER SUFFACE OF SECTION	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial rely Vegetated Concaverservations:	Imagery	Wate Wate	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ted or Stresser (Explain in	Tates (B13 e Odor (C ² oheres ald luced Iron luction in F sed Plants Remarks) (excep l) l) ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3)	Seco Wai Dra Dry X Sati X Geo Sha FAO Rais	endary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou st-Heave Hu	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LR	ne required MLRA 1, 2 nagery (CS
PROLOGICATION (Incomparison Coludes of Comparison Columbra (Incomparison drology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaverservations: Vater Present? Ves Present? Yes Capillary fringe)	Imagery	Wate Wate M Salt Aqua Hydri Hydri Y Oxio Pres Reco Stur Other Garage Gar	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide ized Rhizospence of Red ent Iron Red ated or Stresser (Explain in epth (inches) epth (inches)	A and 4B) rates (B13 e Odor (C' oberes alc luced Iron luction in F sed Plants Remarks) (excep l) I) Ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3) oils (C6) RR A) Wetland F	Seco War Dra Dry X Satr X Geo Sha FAO Fros	endary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou st-Heave Hu	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required MLRA 1, 2) nagery (CS	
PROLOGETIAND IN THE PROPERTY OF THE PROPERTY O	Hydrology Indicators: adicators (any one indicators (any one indicators (any one indicators (ace Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial resely Vegetated Concaverservations: Vater Present? Ves Present? Ves	Imagery	Wate Wate M Salt Aqua Hydri Hydri Y Oxio Pres Reco Stur Other Garage Gar	LRA 1, 2, 44 Crust (B11) atic Invertebrogen Sulfide tized Rhizospence of Red ent Iron Red ted or Stresser (Explain in epth (inches) epth (inches)	A and 4B) rates (B13 e Odor (C' oberes alc luced Iron luction in F sed Plants Remarks) (excep l) I) Ing Living (C4) Plowed S s (D1) (Ll	t Roots (C3) oils (C6) RR A) Wetland F	Seco War Dra Dry X Satr X Geo Sha FAO Fros	endary Indicater-Stained I 4A and 4B) inage Patter -Season Wa uration Visib omorphic Po allow Aquitar C-Neutral Te sed Ant Mou st-Heave Hu	ators (2 or mor Leaves (B9) (I rns (B10) ater Table (C2 ble on Aerial In sition (D2) rd (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required MLRA 1, 2) nagery (CS

Project/Site:	Plas Newydd Farm-	- Lancaster Lake S	Stud Area	City/County:	Clark Cou	nty			Sampling	Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: \(\)	WA	Sampling	Point:	29
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N	l, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): ı	none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°			Long:	122.77460	6°	_ Datum:	: WGS 84
Soil Map Unit Nam	ie: Sauvie silty	clay loam	· ·				NWI Clas	ssification:	none	_	
Are climatic / hydro	ologic conditions on the	he site typical for t	his time of y	/ear?	Yes	X	No		(If no, explain	າ in Remarks	3)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	_		es" Present?		
Are Vegetation	, Soil						ded, exp	lain any ar	nswers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att							-			
Hydrophytic Veget	ation Procent?	Yes X No									
Hydric Soil Presen					ampled Are		Yes	X	No		
,			<u>'</u>	within a	a Wetland?		· • • • • • • • • • • • • • • • • • • •				
Wetland Hydrology Remarks:	y Present?	Yes X No	<u> </u>								
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Test	t workshe	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Number	of Domir	nant Speci	es		
1.	oo oolonaho hamoo.)				· ——	That Are	OBL, FA	ACW, or F	AC:	2	(A)
2.						Total No	mber of	Dominant			_(' ')
3.								All Strata:		2	(B)
4.					· ——	Darsont	of Domin	ant Casai			_(5)
		Total Cover:	0		· ——			nant Speci ACW, or F		100%	(A/B)
		rotal cover.				macras	, ODL, 17	1011, 011		10070	_(/ (/ D)
Shrub Stratum						Prevale	nce Inde	x Worksh	eet·		
1.							al % Cov			Itiply by:	
2.					· 	OBL spe		CI 01.		0	=
3.					· ——	•	_			0	_
4.						FAC spe	_			0	_
5.					· ——	_	_			0	
		Total Cover:	0		. ———	UPL spe			x5 =	0	_
Herb Stratum							Totals:	0	(A)	0	_ (B)
Holcus lanatus	S		30	Υ	FAC		_	ex = B/A =		V/0!	_(-/
Juncus effusus			20		FACW						-
3. Agrostis capilla			50	Y	FAC	Hvdrop	hvtic Ved	getation Ir	dicators:		
4. Lysimachia nu			10		FACW			-	Hydrophytic V	egetation	
5. Persicaria hyd			10		OBL	x	•		st is >50%	3	
6. Lotus cornicula			2		FAC	#####			lex is ≤3.0 ¹		
7. Rumex crispus			0.1		FAC				Adaptation1 (F	Provide supp	ortina
8.								_	or on a separat		J
9.									/ascular Plants		
10.									phytic Vegeta		n)
-								, , ,	., ,	· · · · · ·	,
		Total Cover:	122.1		· ———						
Woody Vine S	tratum					1Indicate	ors of hyd	lric soil and	d wetland hydr	rology must	
1.									d or problemat		
2.									· ·		
		Total Cover:	0		·	Hydrop Vegetat					
% Ra	re Ground in Herb St			otic Crust	0	Present			Yes X	No	
Remarks:									<u>-</u>		
. Ciliaino.											

Profile Dec				1. 1							ng Point:	29
	scription: (Describ	be to the de	epth neede				or or co	onfirm the	absence	of indicate	ors.)	
Depth	Matrix	0/	0-1		K Featu		Loc				Damada	
(inches)	Color (moist)		Color (r	noist)	%	Type ¹	Loc	_	xture		Remarks	
<u>0-2</u> 2-7	10 YR 3/2 7.5 YR 5/2	<u>100</u>	5 YR 3/4		10	С	M	SILT I		-		
<u>Z-1</u>	7.5 TR 5/2		5 YR 4/4		5	C	PL	SILIT	_OAW			
			5 YR 4/4		5	C	M			-		
7-16	7.5 YR 5/2	70	5 YR 3/4		20	C	M	SILT I	OAM			
7-10	7.5 11(5/2		5 YR 4/4		10	C	PL	<u> </u>	-OAW			
			0 11(4)4		- 10	<u> </u>				-		
							-					
¹ Type: C=0	Concentration, D=D	epletion, RI	M=Reduced	Matrix, CS	=Cove	red or Co	ated Sa	and Grains.	² Locatio	n: PL=Por	re Lining, M=Matrix.	
Hydric Soi	I Indicators: (App	licable to a	ıll LRRs, ur	nless other	wise n	oted.)		Indica	tors for P	Problemati	ic Hydric Soils ³ :	
Histos	sol (A1)			Sandy Red	dox (S5	5)				2 cm Muck	k (A10)	
Histic	Epipedon (A2)			Stripped M	1atrix (S	86)				Red Parer	nt Material (TF2)	
Black	Histic (A3)			Loamy Mu	cky Mir	neral (F1)	(excep	ot MLRA 1		Other (Exp	plain in Remarks)	
Hydro	gen Sulfide (A4)		<u> </u>	Loamy Gle	eyed Ma	atrix (F2)						
X Deple	ted Below Dark Sur	face (A11)	<u> </u>	Depleted N	Matrix (F3)						
Thick	Dark Surface (A12))		Redox Dar	rk Surfa	ace (F6)		3	Indicators	of hydroph	hytic vegetation and	l
Sandy	/ Muck Mineral (S1))		Depleted D	Dark Su	ırface (F7	')		wetland	hydrology	must be present,	
Sandy	gleyed Matrix (S4)			Redox Dep	pressio	ns (F8)			unless	disturbed	or problematic.	
	Layer (if present)	:										
	Layer (if present)	:										
Restrictive Type: Depth (inch		:						Hydric Soi	l Present	?	<u>Yes X</u>	No
Restrictive Type: Depth (inch	nes):	:						Hydric Soi	l Present	?	Yes X	No
Restrictive Type: Depth (inch Remarks:	res):Y							Hydric Soi	l Present	?	Yes X	No
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H	res):Y ydrology Indicator	rs:	fficient)					Hydric Soi				
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hydromary Index	Y ydrology Indicator licators (any one inc	rs:	fficient)	Water-Sta	ined Le	eaves (B9				Secondary	Indicators (2 or mo	re required)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surface	Y ydrology Indicator licators (any one income Water (A1)	rs:	fficient)	Water-Stai		,) (exce			Secondary Water-Sta	Indicators (2 or mo	re required)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High \	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2)	rs:	fficient)	MLRA 1	I, 2, 4A	eaves (B9) (exce		<u>s</u>	Secondary Water-Sta 4A and	Indicators (2 or mo nined Leaves (B9) (I	re required)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H: Primary Ind Surfac High V	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2) ation (A3)	rs:	fficient)	MLRA 1 Salt Crust	I , 2, 4A (B11)	and 4B)) (exce		<u>s</u>	Secondary Water-Sta 4A and Drainage F	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10)	re required) MLRA 1, 2,
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H Primary Ind Surfac High V Satura Water	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2)	rs:	fficient)	MLRA 1 Salt Crust Aquatic Inv	I , 2, 4A (B11) vertebra	and 4B)) (exce			Secondary Water-Sta 4A and Drainage F Dry-Seasc	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2	re required) MLRA 1, 2,
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H Primary Ind Surfac High \ Satura Water Sedim	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2)	rs:	fficient)	MLRA 1 Salt Crust Aquatic Inv Hydrogen	I , 2, 4A (B11) vertebra Sulfide	and 4B) ates (B13) (exce	pt	<u>s</u>	Secondary Water-Sta 4A and Drainage F Dry-Seaso Saturation	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2 n Visible on Aerial Ir	re required) MLRA 1, 2,
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H; Primary Ind Surfac High V Satura Water Sedim Drift D	y ydrology Indicator dicators (any one income Water (A1) Nater Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3)	rs:		MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F	I, 2, 4A (B11) vertebra Sulfide Rhizosp	and 4B) ates (B13 Odor (Coheres ald) (exce		<u>s</u> 	Secondary Water-Sta 4A and Drainage I Dry-Seaso Saturation Geomorph	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2 n Visible on Aerial In hic Position (D2)	re required) MLRA 1, 2,
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H: Primary Ind Surfac High V Satura Water Sedim Drift D Algal	y ydrology Indicator dicators (any one incice Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)	rs:		MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu	and 4B) ates (B13 Odor (C) heres alc uced Iron) (exce	ept ng Roots (0	<u>s</u> 	Secondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ad	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial In thic Position (D2)	re required) MLRA 1, 2,
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D	y ydrology Indicator licators (any one inc ce Water (A1) Nater Table (A2) ation (A3) f Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	rs:		MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu	and 4B) ates (B13 Odor (Coheres alcouced Iron action in F	s) 1) ong Livir (C4) Plowed:	ng Roots (CSoils (C6)	C3)	Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ar FAC-Neut	Indicators (2 or mo ained Leaves (B9) (I d 4B) Patterns (B10) on Water Table (C2 n Visible on Aerial In hic Position (D2)	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6)	rs: dicator is su		MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu n Redu	and 4B) ates (B13 Odor (C heres alc uced Iron action in F ed Plants	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)		Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or monimed Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial Indic Position (D2) Equitard (D3) Equitard (D3) Example 1 (D5) Example 2 (D6) (LR	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H; Primary Ind Surfac High \ Satura Water Sedim Drift E Algal I Iron D Surfac X Inunda	y ydrology Indicator licators (any one inc ce Water (A1) Nater Table (A2) ation (A3) f Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	rs: dicator is su	X ————————————————————————————————————	MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu n Redu	and 4B) ates (B13 Odor (C heres alc uced Iron action in F ed Plants	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)		Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or monained Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2) on Visible on Aerial Indic Position (D2) equitard (D3) tral Test (D5)	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland H; Primary Ind Surfac High \ Satura Water Sedim Drift E Algal I Iron D Surfac X Inunda	y ydrology Indicator licators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aeriely Vegetated Conc	rs: dicator is su	X ————————————————————————————————————	MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu n Redu	and 4B) ates (B13 Odor (C heres alc uced Iron action in F ed Plants	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)		Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or monimed Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial Indic Position (D2) Equitard (D3) Equitard (D3) Example 1 (D5) Example 2 (D6) (LR	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac X Inunda Spars Field Obse	y ydrology Indicator licators (any one inc ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) ation Visible on Aeri ely Vegetated Conc	rs: dicator is su	X ————————————————————————————————————	MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	I, 2, 4A (B11) vertebra Sulfide Rhizosp of Redu n Redu Stress blain in	and 4B) ates (B13 Odor (C heres ald uced Iron action in F ed Plants Remarks	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)		Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or monimed Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial Indic Position (D2) Equitard (D3) Equitard (D3) Example 1 (D5) Example 2 (D6) (LR	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac X Inunda X Inunda Spars Field Obse Surface Wa Water table	y ydrology Indicator dicators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerical Visible on Aeric	ial Imagery cave Surfac	(B7) e (B8) No X No X	MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or Other (Exp	(B11) vertebra Sulfide Rhizosp of Redu n Redu Stress blain in	and 4B) ates (B13 Odor (C heres ald uced Iron action in F ed Plants Remarks	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)	<u>s</u> 	Secondary Water-Sta 4A and Drainage F Dry-Seaso Saturation Geomorph Shallow Ar FAC-Neuti Raised An Frost-Hear	Indicators (2 or monained Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial Indic Position (D2) Equitard (D3) Etral Test (D5) Int Mounds (D6) (LR	re required) MLRA 1, 2,) nagery (C9)
Restrictive Type: Depth (inch Remarks: HYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac X Inunda X Inunda Spars Field Obse Surface Wa Water table Saturation I	y ydrology Indicator dicators (any one income Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) ation Visible on Aerical Visible on Aeric	ial Imagery cave Surfac	(B7) e (B8)	MLRA 1 Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or Other (Exp	(B11) vertebra Sulfide Rhizosp of Redu n Redu Stress blain in	and 4B) ates (B13 Odor (C heres ald uced Iron action in F ed Plants Remarks	i) (exce ii) 1) ong Livir (C4) Plowed ii	ng Roots (CSoils (C6)	<u>s</u> 	Secondary Water-Sta 4A and Drainage F Dry-Seasc Saturation Geomorph Shallow Ad FAC-Neuti Raised An	Indicators (2 or monained Leaves (B9) (Ind 4B) Patterns (B10) on Water Table (C2 on Visible on Aerial Indic Position (D2) Equitard (D3) Etral Test (D5) Int Mounds (D6) (LR	re required) MLRA 1, 2,) nagery (C9)

Project/Site: Plas Newydd Farm- Lancas	ster Lake Stud Area	_ City/County	. Clark Cour	ity	Sampling Date: _	7/3/201
Applicant/Owner: Plas Newydd Farm, LLC				State: WA	Sampling Point:	3
nvestigator(s): B. Haddaway, T.Stout		Sectio	n, Township	, Range: S1, T4N, R1W		
andform (hillslope, terrace, etc.): Flood	plain	Local re	elief (concav	e, convex, none): none	Slope	e (%): <u>0-1%</u>
Subregion (LRR): Northwest Forests and Coa	ast (LRR A) La	t: 45.850967	0	Long: 122.77460)6° D	atum: WGS 84
Soil Map Unit Name: Sauvie silty clay loa	m			NWI Classification:	none	
are climatic / hydrologic conditions on the site t	ypical for this time o	f year?	Yes 2	X No	_(If no, explain in Re	marks)
Are Vegetation, Soil, or Hy	ydrology	significantly	y disturbed?	Are "Normal Circumstand	ces" Present? Yes	X No
Are Vegetation, Soil, or Hy	ydrology	naturally pr	oblematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS – Attach si	ite map showing	g sampling	point loca	ations, transects, impo	ortant features, e	tc.
lydrophytic Vegetation Present? Yes >	(No					
Hydric Soil Present? Yes >			ampled Are a Wetland?	a Yes X	No	
Vetland Hydrology Present? Yes >		- within	a wellanu?			
Remarks:						
/EGETATION						
	Absolute	Dominant	Indicator	Dominance Test worksho	et:	
Free Stratum (Use scientific names.)	% Cover	Species?	Status?	Number of Dominant Spec		
. ,			-	That Are OBL, FACW, or F	AC: 2	(A)
<u></u>				Total Number of Dominant		
				Species Across All Strata:	2	(B)
				Percent of Dominant Speci	ies	
To	otal Cover:	0_		That Are OBL, FACW, or F		(A/B)
Shrub Stratum	otal Cover:			Total % Cover of: OBL species FACW species FAC species FACU species UPL species	Multiply by x1 = 0 x2 = 0 x3 = 0 x4 = 0 x5 = 0	<i>y</i>
erb Stratum		_		Column Totals: 0	(A) 0	(B)
. Phalaris arundinacea	3	0 Y	FACW	Prevalence Index = B/A =	= #DIV/0!	
. Juncus effusus	3	0 Y	FACW			
. Agrostis capillaris	1	5	FAC	Hydrophytic Vegetation I	ndicators:	
. Holcus lanatus		5	FAC	1 - Rapid Test for	Hydrophytic Vegetati	on
Persicaria hydropiperoides		1	OBL	X 2 - Dominance Te		
. Lotus corniculatus	1	5	FAC	##### 3 - Prevalence Inc	dex is ≤3.0 ¹	
. Alopecurs pratensis	1	5		4 - Morphological	Adaptation1 (Provide	supporting
		_			or on a separate shee	et)
- <u> </u>				5 - Wetland Non-		
0				Problematic Hydro	ophytic Vegetation ¹ (E	Explain)
1						
	otal Cover: 11	<u>1</u>		1		
Woody Vine Stratum				¹ Indicators of hydric soil an be present, unless disturbe		must
			-	be present, unless disturbe	u or problematic.	
				Hydrophytic		
·	etal Cover					
		0 Diatio Crust	0	Vegetation Present?	Yes X No	_

SOIL										Sampling F	Point:	
Profile Des	scription: (Describe	to the de	epth neede	ed to docu	ment th	e indicat	or or co	onfirm the ab	sence o	of indicators	s.)	
Depth	Matrix			Red	ox Featu	ires		_				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²				Remarks	
0-3	10 YR 3/2	100						SILT LO				
3-7	7.5 YR 5/1	80	5 YR 3/4		10	<u>C</u>	<u>PL</u>	SILT LO	AM_			
	· 	· 	5 YR 4/4		<u>5</u>	<u>C</u>	<u>M</u>					
7-16	7.5 YR 5/1	75	5 YR 4/4		5	<u>C</u>	<u>M</u>	SILT LO	AM			
			5 YR 3/4		<u>5</u>	C	<u>PL</u>					
			5 YR 3/3		5	<u>C</u>	<u>M</u>					
			5 YR 3/4	 -	10	С	M	_				
¹ Type: C=	Concentration, D=Dep	letion, RN	M=Reduced	d Matrix, C	S=Cove	red or Co	ated Sa	nd Grains. ²	Location	n: PL=Pore I	_ining, M=Matri	Κ.
Hydric Soi	il Indicators: (Applic	able to a	II LRRs, u	nless othe	erwise n	oted.)		Indicato	rs for P	roblematic I	Hydric Soils ³ :	
Histos	sol (A1)			Sandy R	edox (S5	5)			2	2 cm Muck (A10)	
Histic	Epipedon (A2)			Stripped	Matrix (S	S6)			'	Red Parent I	Material (TF2)	
Black	Histic (A3)			Loamy M	lucky Mii	neral (F1)) (excep	ot MLRA 1)	(Other (Expla	in in Remarks)	
Hydro	ogen Sulfide (A4)			Loamy C	Bleyed Ma	atrix (F2))					
X Deple	eted Below Dark Surface	ce (A11)		Depleted	l Matrix (F3)						
Thick	Dark Surface (A12)			Redox D	ark Surfa	ace (F6)					ic vegetation ar	ıd
Sand	y Muck Mineral (S1)			Depleted	l Dark Su	urface (F	7)	V	wetland h	hydrology mu	ust be present,	
	y gleyed Matrix (S4)			Redox D	epressio	ns (F8)			unless	disturbed or	problematic.	
Restrictive	e Layer (if present):											
Type:							١.					
Depth (inch	nes):						- 1	Hydric Soil P	Present?	•	Yes X	
Depth (inch							<u> </u>	Hydric Soil P	Present?	,	Yes X	No
Depth (inchemarks:	Y							Hydric Soil P	Present?	•	Yes X	No
Depth (inchemarks: IYDROLOG Wetland H	:Y lydrology Indicators:		fficient					Hydric Soil P				
Depth (inchemarks: YDROLOG Wetland H Primary Inc	Y lydrology Indicators: dicators (any one indica		fficient)	Water S	tained Le	navos (RS			<u>s</u>	econdary Inc	dicators (2 or m	ore required)
YDROLOG Wetland H Primary Inc	lydrology Indicators: dicators (any one indicators (A1)		fficient)	Water-S		,	9) (excep		<u>s</u>	econdary Ind Water-Staine	dicators (2 or med Leaves (B9)	ore required)
YDROLOG Wetland H Primary Inc Surfa High	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2)		fficient)	MLRA	1, 2, 4A	eaves (B9	9) (excep		<u>s</u>	econdary Inc Water-Staine 4A and 4	dicators (2 or med Leaves (B9)	ore required)
YDROLOG Wetland H Primary Inc Surfa High	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3)		fficient)	MLRA Salt Crus	1, 2, 4A st (B11)	and 4B)	excep)		<u>s</u>	econdary Inc Water-Staine 4A and 4 Drainage Pa	dicators (2 or med Leaves (B9) B) tterns (B10)	ore required)
YDROLOG Wetland H Primary Inc Surfa High Satur Wate	lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1)		fficient)	MLRA Salt Crus Aquatic I	1, 2, 4A st (B11) nvertebr	and 4B)	9) (excep)			econdary Ind Water-Staine 4A and 4 Drainage Pa Dry-Season	dicators (2 or moded Leaves (B9) B) tterns (B10) Water Table (C	ore required) (MLRA 1, 2,
YDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin	lydrology Indicators: dicators (any one indicators (A1) water (A1) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2)		_	MLRA Salt Crus Aquatic I Hydroge	a 1, 2, 4A st (B11) Invertebra n Sulfide	and 4B) ates (B13	(except) (except) (33)	pt	<u>s</u>	econdary Ind Water-Staine 4A and 4 Drainage Pa Dry-Season	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial	ore required) (MLRA 1, 2,
Primary Inc. Surfa High V Satur. Wate Sedin Drift [lydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)		fficient)	MLRA Salt Crus Aquatic I Hydroge Oxidized	a 1, 2, 4A st (B11) Invertebra n Sulfide Rhizosp	and 4B) ates (B13 Odor (Coheres ald	(exception)))))))))))))))))))))))))))))))			econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Consiste on Aerial Position (D2)	ore required) (MLRA 1, 2,
YDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal	lydrology Indicators: dicators (any one indicators water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)		_	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence	a 1, 2, 4A et (B11) Invertebra In Sulfide Rhizospe of Red	ates (B13 Odor (Coheres ald	9) (excep)) 3) 1) pong Livin	pt ng Roots (C3)	<u>s</u>	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2)	ore required) (MLRA 1, 2,
YDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift [Algal Iron [dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ation (A3) or Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		_	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I	a 1, 2, 4A st (B11) Invertebra n Sulfide Rhizospe e of Redu	ates (B13 Odor (Coheres alduced Iron Juction in F	(except) (i) (ii) (i	pt ng Roots (C3) Soils (C6)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui FAC-Neutral	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Clisible on Aerial Position (D2) itard (D3) Test (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9)
YDROLOG Wetland H Primary Inc Surfa High Satur Wate Sedin Drift I Algal Iron I Surfa	dicators (any one indicators: dicators (any one indicators (any one indicators (any one indicators (A2) ation (A3) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6)	ator is su	x	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	S	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (Li	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inchese property) Primary Incompared to Surfa High Wate Sedin Drift Incompared to Surfa Iron Incompared to Surfa Inund	ly lydrology 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) ce Soil Cracks (B6) lation Visible on Aerial	ator is su	X X ——————————————————————————————————	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress	ates (B13 Odor (Coheres alduced Iron Juction in F	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	S	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Clisible on Aerial Position (D2) itard (D3) Test (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inches Remarks: HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concav	ator is su	X X ——————————————————————————————————	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	S	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (Li	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inche Remarks: Semarks: SYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift I Algal Iron I Surfa Inund Spars Field Obse	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concav	Imagery ve Surface	X X ——————————————————————————————————	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp e of Redu ron Redu or Stress	ates (B13 Odor (C oheres ald uced Iron uction in F sed Plants Remarks	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	S	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (Li	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inches Remarks: HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift I Algal Iron I Surfa Inund Spars Field Obse	dicators (any one indicators: dicators (any one indicators (ary one indicators (ary one indicators (ary one indicators (A1)) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Yes	Imagery	X ————————————————————————————————————	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	A 1, 2, 4A st (B11) nvertebr n Sulfide Rhizosp e of Redi ron Redu or Stress xplain in	ates (B13) Odor (Coheres alcouced Iron uction in Fied Plants Remarks	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6)	S	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (Li	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inche Remarks: IYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Water table Saturation	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Present? Yes Present? Yes	Imagery	(B7) e (B8)	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	A 1, 2, 4A st (B11) nvertebr n Sulfide Rhizosp e of Redi ron Redu or Stress xplain in	ates (B13) Odor (Coheres alcouced Iron uction in Fied Plants Remarks	(exception))))))))))))))))))))))))))))))))))))	pt ng Roots (C3) Soils (C6) LRR A)	<u>s</u>	econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqu FAC-Neutral Raised Ant N	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (LI Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9)
Depth (inche Remarks: IYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Water table Saturation (includes c	lydrology Indicators: dicators (any one indicators A3)) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial (any one indicator verticators) ater Present? Present? Present? Yes apillary fringe)	Imagery	(B7) e (B8) X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	A 1, 2, 4A st (B11) nvertebra n Sulfide Rhizospe e of Reda ron Redu or Stress xplain in (inches): (inches):	ates (B13) Odor (Coheres alcouced Iron uction in Fied Plants Remarks	e) (except) 1) 1) pong Living (C4) Plowed S s (D1) (L	pt ng Roots (C3) Soils (C6) _RR A) Wetland		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (LI Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A) 7)
Depth (inche Remarks: HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Water table Saturation (includes c	lydrology Indicators: dicators (any one indicators (any one indicators (any one indicators) ce Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial sely Vegetated Concavervations: ater Present? Present? Yes Present? Yes	Imagery	(B7) e (B8) X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	A 1, 2, 4A st (B11) nvertebra n Sulfide Rhizospe e of Reda ron Redu or Stress xplain in (inches): (inches):	ates (B13) Odor (Coheres alcouced Iron uction in Fied Plants Remarks	e) (except) 1) 1) pong Living (C4) Plowed S s (D1) (L	pt ng Roots (C3) Soils (C6) _RR A) Wetland		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (LI Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A) 7)
Depth (inche Remarks: HYDROLOG Wetland H Primary Inc Surfa High ' Satur Wate Sedin Drift [Algal Iron [Surfa Inund Spars Field Obse Surface Water table Saturation (includes c	lydrology Indicators: dicators (any one indicators A3)) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on Aerial (any one indicator verticators) ater Present? Present? Present? Yes apillary fringe)	Imagery	(B7) e (B8) X	MLRA Salt Crus Aquatic I Hydroge Oxidized Presence Recent I Stunted Other (E	A 1, 2, 4A st (B11) nvertebra n Sulfide Rhizospe e of Reda ron Redu or Stress xplain in (inches): (inches):	ates (B13) Odor (Coheres alcouced Iron uction in Fied Plants Remarks	e) (except) 1) 1) pong Living (C4) Plowed S s (D1) (L	pt ng Roots (C3) Soils (C6) _RR A) Wetland		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) tterns (B10) Water Table (Cisible on Aerial Position (D2) itard (D3) Test (D5) Mounds (D6) (LI Hummocks (D5)	ore required) (MLRA 1, 2, 2) Imagery (C9) RR A) 7)

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling D	Date:	7/3/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	31
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none): none		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	_ 45.850967°			Long: 122.774606		=	WGS 84
Soil Map Unit Nam	ie: Sauvie silty o	clay loam	-				NWI Classification:	none	_	
Are climatic / hydro	ologic conditions on the	ne site typical for the	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	;)
Are Vegetation	, Soil	, or Hydrology	•	significantly	disturbed?	Are "N	lormal Circumstance			
Are Vegetation	, Soil						eded, explain any an			-
SUMMARY OF	FINDINGS - Att	_								
Hydrophytic Vegeta	ation Present?	Yes X No		1.4.0		_				
Hydric Soil Present		Yes X No			ampled Are a Wetland?	а	Yes X	No		
Wetland Hydrology	Present?	Yes X No		WILIIII	a wellanu:		·			
Remarks:	,									
VECETATION										
VEGETATION						ı				
			Absolute	Dominant	Indicator		nce Test workshee			
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?		of Dominant Specie			
1						i nat Are	e OBL, FACW, or FA	AC:	1	(A)
2.							imber of Dominant			
3						Species	Across All Strata:		1	_(B)
4.						Percent	of Dominant Specie	es .		
		Total Cover:	0			That Are	e OBL, FACW, or FA	AC: <u>1</u>	00%	_(A/B)
Shrub Stratum							nce Index Workshe			
1				-			tal % Cover of:		tiply by:	=
2.					· 	OBL spe			0	-
3.							species		0	_
4						FAC spe		x3 =	0	
5		T. (-) O		-	· 		pecies	· · · · · · · · · · · · · · · · · · ·	0	-
Llank Otratura		Total Cover:	0			UPL spe		x5 =	0	- (D)
Herb Stratum			0.4		FAC			(A)	0	_(B)
Equisetum arv Trifolium ropor			0.1 10	-	FAC	Pieva	lence Index = B/A =	#DIV	//0!	=
 Trifolium reper Agrostis capilla 			80		FAC	Hudron	hytic Vegetation In	diaatara		
Agrostis capilla Lolium perenn			5		FAC	пушор	1 - Rapid Test for I		agotation	
Persicaria hydi			10		OBL		2 - Dominance Tes		getation	
Lotus cornicula			10		FAC	#####				
7. Alopecurus pra			5	-	FAC		4 - Morphological A		rovide supp	ortina
8. Holcus lanatus			5	-	FAC		data in Remarks of			orung .
9. Plantago lance			0.1		FACU		5 - Wetland Non-V	•		
	Jointa		0.1	-	· 		Problematic Hydro		_	n)
					· 			p, a.o r ogota.	(<i>_</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.,
		Total Cover:	125.2							
Woody Vine S	tratum					1Indicate	ors of hydric soil and	wetland hydro	ology must	
1.							ent, unless disturbed			
2.						11	hveia			
		Total Cover:	0			Hydrop Vegetat				
% Bai	re Ground in Herb Str		Cover of Bi		0	Present		Yes X	No	
Remarks:						I		-		
. tomano.										

	Color (moist)										
	Odioi (moiot)	<u>%</u>	Color (m	noist) %	Type ¹	Loc ²	Textur	<u>e</u>		Remarks	
2-7	10 YR 3/2	100					SANDY L	OAM			
	7.5 YR 4/1	80	5 YR 3/4	10	С	М	SANDY L	OAM			
			5 YR 4/4	5	С	PL					
			7.5 YR 6/1	5	D	М					
7-8 7	7.5 YR 3/1	85	5 YR 3/3	10	С	M	SANDY L	OAM	-		
			5 YR 4/4	5	С	М					
8-16	7.5 YR 5/2	70	6/N	5	D	M	SANDY L	OAM			
			5 YR 4/6	15	С	M					
1= 0.0			5 YR 4/4	10	C	M	21.0		DI D. L'		
Type: C=Co	oncentration, D=De	epietion, Riv	i=Reduced	Matrix, CS=Cove	rea or Co	ated Sand	i GrainsL	ocation	: PL=Pore Lin	ing, ivi=iviatrix.	
Hydric Soil I	ndicators: (Appl	icable to al	I LRRs, unl	less otherwise n	oted.)		Indicators	s for Pr	oblematic Hy	dric Soils ³ :	
Histosol				Sandy Redox (S5	-				cm Muck (A1		
	pipedon (A2)			Stripped Matrix (S					Red Parent Ma		
	listic (A3)			Loamy Mucky Min	neral (F1)	(except	MLRA 1)		Other (Explain		
	en Sulfide (A4)			Loamy Gleyed M	, ,	•	,		` '	,	
	d Below Dark Sur	ace (A11)		Depleted Matrix (
	ark Surface (A12)	` ,		Redox Dark Surfa			³ Indi	cators o	of hydrophytic	vegetation and	
	Muck Mineral (S1)			Depleted Dark Su	urface (F7	7)			ydrology must	Ū	
	gleyed Matrix (S4)			Redox Depression	•				disturbed or pr		
Restrictive L	ayer (if present):										
Type: Depth (inches	s):					Ну	rdric Soil Pr	esent?	,	Yes <u>X</u>	No
Type: Depth (inches emarks:	s):					Ну	dric Soil Pr	esent?	,	Yes X	No
Type: Depth (inchesemarks:	s):	S:				Ну	dric Soil Pr	esent?		Yes <u>X</u>	No
Type: Depth (inchesemarks: YDROLOGY Wetland Hyde			ficient)			Ну	vdric Soil Pr			Yes X ators (2 or mor	
Type: Depth (inchesemarks: YDROLOGY Wetland Hyd Primary Indica	drology Indicator			Water-Stained Le	eaves (B9			Se	econdary Indic		e requirec
Type: Depth (inchesemarks: **TOROLOGY Wetland Hyde Primary Indications Surface	drology Indicators ators (any one ind			Water-Stained Le	`)) (except		Se	econdary Indic	ators (2 or mor Leaves (B9) (M	e requirec
Type: Depth (inchesemarks: YDROLOGY Wetland Hyde Primary Indicates	drology Indicators ators (any one ind Water (A1) ater Table (A2)				`)) (except			econdary Indic Vater-Stained	ators (2 or mor Leaves (B9) (N	e requirec
Type: Depth (inchesemarks: Property Wetland Hyde Primary Indication Surface High Wate Saturation	drology Indicators ators (any one ind Water (A1) ater Table (A2)		_	MLRA 1, 2, 4A	and 4B)	e) (except		SeV	econdary Indic Vater-Stained 4A and 4B) Orainage Patte	ators (2 or mor Leaves (B9) (N	e required
Type: Depth (inchesternarks: YDROLOGY Wetland Hyd Primary Indication Surface High Water M	drology Indicators ators (any one ind Water (A1) ater Table (A2) ion (A3)			MLRA 1, 2, 4A Salt Crust (B11)	and 4B)	9) (except		SeV	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	ators (2 or mor Leaves (B9) (N rns (B10)	e required
Type: Depth (inchesternarks: YDROLOGY Wetland Hyd Primary Indication Surface High Water M Saturatic Water M Sedimer	drology Indicators ators (any one ind Water (A1) ater Table (A2) ion (A3) Marks (B1)			MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr	and 4B) ates (B13	9) (except) 3)		S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ole on Aerial Im	e required
Type: Depth (inchesternarks: YDROLOGY Wetland Hyd Primary Indicate Surface High Water M Sedimer Drift Dep	drology Indicators eators (any one ind e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		<u>X</u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	and 4B) ates (B13 Odor (Coheres ald	9) (except 3) 1) ong Living			econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit	ators (2 or mor Leaves (B9) (N rns (B10) ater Table (C2) ble on Aerial Im osition (D2)	e required
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	drology Indicators eators (any one ind e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		<u></u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	ates (B13 Odor (Coheres ald	(C4)	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit Geomorphic Po	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) tole on Aerial Imposition (D2) rd (D3)	e required
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators eators (any one ind water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4)		<u></u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	ates (B13 Odor (Coheres alduced Iron Juction in F	3) (except 3) 1) ong Living (C4) Plowed Sc	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Was Saturation Visit Geomorphic Po Shallow Aquita FAC-Neutral Te	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) tole on Aerial Imposition (D2) rd (D3)	e required ILRA 1, 2
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	drology Indicators eators (any one index e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5)	icator is suf	<u>x</u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red	ates (B13 Odor (Control of the Control 9) (except 3) 1) ong Living (C4) Plowed So s (D1) (LR	Roots (C3)	S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Totalsed Ant Mo	ators (2 or mor Leaves (B9) (Morns (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5)	e required //LRA 1, 2) nagery (CS	
Type: Depth (inchesternarks: PDROLOGY Wetland Hyd Primary Indicator Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	drology Indicators ators (any one ind water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) s Soil Cracks (B6)	icator is suf	<u>X</u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress	ates (B13 Odor (Control of the Control 9) (except 3) 1) ong Living (C4) Plowed So s (D1) (LR	Roots (C3)	S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Totalsed Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS	
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	drology Indicators eators (any one index e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri y Vegetated Conc	icator is suf	<u>X</u>	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	and 4B) ates (B13 Odor (C oheres ald uced Iron uction in F sed Plants Remarks	9) (except 3) 1) ong Living (C4) Plowed So s (D1) (LR	Roots (C3)	S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Totalsed Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water	drology Indicators eators (any one index e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri y Vegetated Concurations: er Present?	icator is suf	X	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Stunted or Stress Other (Explain in	ates (B13 Odor (C oheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed Science (D1) (LR	Roots (C3)	S6	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Totalsed Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water table P	drology Indicators eators (any one index eators (any one index eators (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri y Vegetated Concustations: er Present? Present?	al Imagery (ave Surface	X	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	ates (B13 Odor (C Oheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed Science (D1) (LR	Roots (C3) sils (C6)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Total Raised Ant Mon	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required ILRA 1, 2
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water table P Saturation Pre	drology Indicators eators (any one index e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri y Vegetated Concevations: er Present? Present? Yesent?	icator is suf	X	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Stunted or Stress Other (Explain in	ates (B13 Odor (C Oheres ald uced Iron uction in F sed Plants Remarks	(C4) Plowed Science (D1) (LR	Roots (C3) sils (C6)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Totalsed Ant Mo	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ble on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Depth (inches emarks: YDROLOGY Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water Water table P Saturation Pro (includes capi	drology Indicators eators (any one index e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) e Soil Cracks (B6) ion Visible on Aeri y Vegetated Concevations: er Present? Present? Yesent?	al Imagery (ave Surface es es es	X	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	ates (B13) Odor (Coheres alcouced Iron uction in Feed Plants Remarks	(C4) Plowed Sc (D1) (LR	Roots (C3) iils (C6) R A) Wetland H	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Total Raised Ant Mon	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required ILRA 1, 2
Type: Depth (inches Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Surface High Water Malgal Maler of Depth Companies Surface Inundation Sparsely Field Observ Surface Water Water table P Saturation Precincludes capi	drology Indicators eators (any one index eators (any one index eators (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) eposits (B3) at or Crust (B4) eposits (B5) e Soil Cracks (B6) ion Visible on Aeri ey Vegetated Concevations: er Present? er Present? er Sesent?	al Imagery (ave Surface es es es	X	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Stunted or Stress Other (Explain in Depth (inches) Depth (inches)	ates (B13) Odor (Coheres alcouced Iron uction in Feed Plants Remarks	(C4) Plowed Sc (D1) (LR	Roots (C3) iils (C6) R A) Wetland H	Se V	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season Wasturation Visit Geomorphic Poshallow Aquita FAC-Neutral Total Raised Ant Mon	ators (2 or mor Leaves (B9) (Norms (B10) ater Table (C2) ole on Aerial Imposition (D2) rd (D3) est (D5) unds (D6) (LRI ummocks (D7)	e required ILRA 1, 2

Sampling Point: Slope (%): 0-774606° Datum: W Pation: none (If no, explain in Remarks) Instances" Present? Yes X No Important features, etc.
Slope (%): 0-774606° Datum: Wation: none (If no, explain in Remarks) Instances" Present? Yes X No any answers in Remarks.) important features, etc.
774606° Datum: Weation: none (If no, explain in Remarks) Instances" Present? Yes X No any answers in Remarks.) Important features, etc.
eation: none (If no, explain in Remarks) Instances" Present? Yes X No any answers in Remarks.) Important features, etc.
(If no, explain in Remarks) Instances" Present? Yes X No any answers in Remarks.) Important features, etc.
nstances" Present? Yes X No any answers in Remarks.) important features, etc.
important features, etc.
important features, etc.
<u> </u>
No
No
wka baati
rksheet:
Species /, or FAC:
(A
ninant trata: 2 (B
(D
Species /, or FAC: 100 % (A
/, or FAC: <u>100%</u> (A
orksheet: f: Multiply by: x1 = 0
x2 = 0
x3 = 0
x4 = 0
x5 = 0
0 (A) 0 (B
B/A = #DIV/0!
tion Indicators:
est for Hydrophytic Vegetation
ice Test is >50%
ice Index is ≤3.0 ¹
ogical Adaptation1 (Provide supporti
arks or on a separate sheet)
Non-Vascular Plants ¹
Hydrophytic Vegetation ¹ (Explain)
coil and wetland hydrology must sturbed or problematic.
-
Yes X No
S/ initial solutions of the solution of the so

(inches)	Matrix			Redox Featu	ıres		_		
(11101100)	Color (moist)	%	Color (r	moist) %	Type ¹	Loc ²	Textur	e	Remarks
0-2	10 YR 3/2	100					SILT LOA	M	
2-8 1	10 YR 4/2	75	10 YR 4/4	15	С	M	SILT LOA	M	
			10 YR 4/4	1 5	С	PL			
			5 YR 4/3	5	С	PL			
8-16 1	10 YR 4/2	83	5 YR 4/4	10	С	М	SILT LOA	М	
			5 YR 4/4	5	С	PL			
			10 YR 6/1	1 2	D	M			
	oncentration, D=De	•				ated San			PL=Pore Lining, M=Matrix. Oblematic Hydric Soils ³ :
Histosol	I (A1)			Sandy Redox (Sa	5)			2	cm Muck (A10)
Histic E	pipedon (A2)			Stripped Matrix (S6)			R	ed Parent Material (TF2)
Black Hi	istic (A3)			Loamy Mucky Mi	neral (F1)	(except	MLRA 1)	<u> </u>	ther (Explain in Remarks)
	en Sulfide (A4)			Loamy Gleyed M		-	,	_	,
	d Below Dark Surfa	ace (A11)		Depleted Matrix					
	ark Surface (A12)	` /		Redox Dark Surf			³ Indi	cators of	f hydrophytic vegetation and
	Muck Mineral (S1)			Depleted Dark S	` '	')			drology must be present,
	gleyed Matrix (S4)			Redox Depression		,		•	isturbed or problematic.
	ayer (if present):				(, ,				
Type:	,								
Depth (inches	8).					l _H v	dric Soil Pr	esent?	Yes X No
	Irology Indicators	:							
Wetland Hyd Primary Indica	ators (any one indi		fficient)						condary Indicators (2 or more requir
Wetland Hyd Primary Indica Surface	ators (any one indic		fficient)	Water-Stained Le	eaves (B9) (except			condary Indicators (2 or more requir rater-Stained Leaves (B9) (MLRA 1
Wetland Hyd Primary Indica Surface	ators (any one indi		fficient)	Water-Stained Lo	`				
Wetland Hyd Primary Indica Surface	ators (any one indic Water (A1) ater Table (A2)		fficient)		`			w	/ater-Stained Leaves (B9) (MLRA 1
Wetland Hyd Primary Indica Surface High Wa Saturatio	ators (any one indic Water (A1) ater Table (A2)		fficient) ——	MLRA 1, 2, 4	A and 4B)	, , •	-	W	ater-Stained Leaves (B9) (MLRA 1 4A and 4B)
Wetland Hyd Primary Indica Surface High Wa Saturatio	ators (any one indic Water (A1) ater Table (A2) on (A3)		fficient)	MLRA 1, 2, 44 Salt Crust (B11)	A and 4B) rates (B13	3)		W	/ater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10)
Wetland Hyd Primary Indica Surface High Wa Saturatic Water W Sedimer	ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1)		fficient) ————————————————————————————————————	MLRA 1, 2, 4A Salt Crust (B11) Aquatic Invertebr	A and 4B) rates (B13 e Odor (C1	s) 1)		W Di Di X Sa	vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Wetland Hyd Primary Indica Surface High Wa Saturatic Water W Sedimer Drift Dep	ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)			MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	A and 4B) rates (B13 e Odor (C2 oheres alo	i) 1) ong Living			Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (
Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	ators (any one indic Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)			MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizos	A and 4B) rates (B13 e Odor (C2 pheres alo uced Iron	i) 1) ong Living (C4)	Roots (C3)		Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2)
Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	ators (any one indice Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)			MLRA 1, 2, 44 Salt Crust (B11) Aquatic Inverteb Hydrogen Sulfide Oxidized Rhizos Presence of Red	Tates (B13 e Odor (C2 oheres alo luced Iron luction in F	i) 1) ong Living (C4) Plowed Sc	Roots (C3)	Di Di X Si Si Fi	Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2) hallow Aquitard (D3)
Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	ators (any one indice Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	cator is suf	<u></u>	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebi Hydrogen Sulfide Oxidized Rhizosi Presence of Red Recent Iron Red	rates (B13 e Odor (C2 oheres alc luced Iron uction in F sed Plants	(C4) Plowed So	Roots (C3)	W Di Di X Sa Si Fi Ri	rater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hyd Primary Indica Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic	ators (any one indice Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	cator is suf	X 	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress	rates (B13 e Odor (C2 oheres alc luced Iron uction in F sed Plants	(C4) Plowed So	Roots (C3)	W Di Di X Sa Si Fi Ri	Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	ators (any one indice Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	cator is suf	X 	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizos Presence of Red Recent Iron Red Stunted or Stress	rates (B13 e Odor (C2 oheres alc luced Iron uction in F sed Plants	(C4) Plowed So	Roots (C3)	W Di Di X Sa Si Fi Ri	Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
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Wetland Hyd Primary Indica Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Observ Surface Water	ators (any one indice Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca vations: er Present? Ye Present? Ye	al Imagery (ve Surface	(B7) e (B8)	MLRA 1, 2, 44 Salt Crust (B11) Aquatic Inverteble Hydrogen Sulfide Oxidized Rhizose Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	and 4B) rates (B13 e Odor (C' oberes ald luced Iron luction in F sed Plants Remarks	i) 1) ong Living (C4) Plowed So s (D1) (LF	Roots (C3) pils (C6) RR A)	W Di Di X Si X G SI Fr Fr	Vater-Stained Leaves (B9) (MLRA 1 4A and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
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Project/Site:	Plas Newydd Farm-	Lancaster Lake	Stud Area	City/County:	Clark Cour	nty		Sa	mpling Da	ate:	8/6/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sa	mpling Po	oint:	33
Investigator(s):	B. Haddaway, T.Sto	ut		Section	n, Township	, Range:	S1, T4N, R	1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	lief (concav	e, convex	, none): <u>non</u>	е		Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	ind Coast (LRR A	<u>\)</u> Lat:	45.850967°	l .		Long: 122	.774606°		Datum:	WGS 84
Soil Map Unit Nam	e: Sauvie silty	clay loam					NWI Classifi	cation: PFO	<u> </u>		
•	logic conditions on the	• •	-		Yes 2		No		•	n Remarks	
Are Vegetation	, Soil					Are "N	Iormal Circur	mstances" Pr	esent? Y	res X	No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	ded, explain	any answers	in Remar	ks.)	
SUMMARY OF	FINDINGS - Att	ach site map	showing	sampling	point loca	ations, 1	ransects,	important	features	s, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No	D								
Hydric Soil Present	!?	Yes X No	0		ampled Area a Wetland?		Yes X	No			
Wetland Hydrology	Present?	Yes X No	0	WILLIIII	a Welland:						
Remarks:		<u> </u>									
VEGETATION			Absolute	Dominant	Indicator	Domina	nce Test wo	orkshaat:			
Trac Stratum (11a	a acientifia nomas \		% Cover	Species?	Status?		of Dominan				
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	se scientific names.)				!		OBL, FAC			2	(A)
2.						Total Nu	ımber of Dor	minant		2	_(A)
3.							Across All S		:	2	(B)
4.		_			. ———			_			_(D)
<u>-</u>		Total Cover	: 0		. ———		of Dominant OBL, FACV	•	100	0%	(A/B)
Shrub Stratum 1. 2. 3. 4. 5. Herb Stratum 1. Equisetum arvi 2. Phalaris arund		Total Cover			FAC FACW	OBL spo FACW s FAC spo FACU s UPL spo Column	species ecies pecies rotals:		(oly by: 0 0 0 0 0 0 0 0 0 0 0 0 0	- - - - - (B)
3. Agrostis capilla			40		FAC	Hydrop	hvtic Vegeta	ation Indicate	ors:		
Persicaria amp			5		OBL	,		est for Hydro		etation	
 Holcus lanatus 	1		15		FAC	X	2 - Domina	nce Test is >	50%		
6.						#####	3 - Prevalei	nce Index is	≤3.0 ¹		
7.							4 - Morphol	logical Adapta	ation1 (Pro	ovide supp	orting
8.							data in Ren	narks or on a	separate	sheet)	
9							5 - Wetland	l Non-Vascula	ar Plants ¹		
10							Problemation	c Hydrophytic	Vegetatio	n ¹ (Explaii	٦)
11											
		Total Cover	105.1								
Woody Vine St	<u>tratum</u>							soil and wetla isturbed or pr			
2.						Hydrop	hvtic		·		
		Total Cover	: 0		_	Vegetat	•				
% Bar	re Ground in Herb Str		Cover of Bi	otic Crust	0	Present		Yes 2	X	No	
Remarks:											

	Matrix			Red	lox Featu	res		•				
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	<u> </u>		Remarks	
0-2	10 YR 3/2	100						SANDY LC	DAM			
2-7	10 YR 4/2	85	5 YR 4/4	1	10	С	М	SANDY LC	DAM			
			10 YR 6	/1	5	D	М	_				
7-16	10 YR 4/2	75	10 YR 6	/1	10	D	М	SANDY LO	DAM			
			5 YR 4/4	1	5	С	М					
			10 YR 4	/4	5	С	М	_				
			7.5 YR 4	1/4	5	С	PL	_				
	Concentration, D=E						ated San			_=Pore Lining		
Histose	ol (A1)			Sandy R	Redox (S5	5)			2 cm	Muck (A10)		
Histic I	Epipedon (A2)			Stripped	Matrix (S	S6)			Red	Parent Mate	rial (TF2)	
Black I	Histic (A3)			Loamy N	Mucky Mir	neral (F1)	(except	MLRA 1)	Othe	r (Explain in	Remarks)	
Hydrog	gen Sulfide (A4)		_	_ Loamy G	Sleyed Ma	atrix (F2))	·				
X Deplet	ted Below Dark Su	rface (A11)		Depleted	d Matrix (F3)						
Thick [Dark Surface (A12	2)		_ Redox D	Oark Surfa	ace (F6)		³ Indic	ators of hy	drophytic ve	getation and	
Sandy	Muck Mineral (S1)		_ Depleted	d Dark Su	ırface (F7	7)	we	tland hydro	ology must b	e present,	
	alouad Matrix (C.))		_ Redox D	Depressio	ns (F8)		u	ınless distu	irbed or prob	olematic.	
Sandy	gleyed Matrix (S4	•										
	Layer (if present											
Restrictive												
Restrictive Type: Depth (inche	Layer (if present						н	ydric Soil Pre	esent?	Ye	s <u>X</u>	No
Restrictive Type: Depth (incher	Layer (if present):					H	ydric Soil Pre	esent?	Ye	s <u>X</u>	No
Restrictive Type: Depth (incher emarks: /DROLOGY Wetland Hy	Layer (if present	rs:					н	ydric Soil Pre				
Restrictive Type: Depth (incher emarks: CDROLOGY Wetland Hy Primary Indi	Layer (if present es): / / /drology Indicato icators (any one in	rs:	ufficient)						Secon	ndary Indicato	ors (2 or mor	e requirec
Restrictive Type: Depth (incher emarks: 'DROLOGY Wetland Hy Primary Indi	Eayer (if present	rs:	officient)	_	stained Le	`) (excep		Secon Wate	ndary Indicato er-Stained Le		e requirec
Primary Indi Surfac High W	es): // /drology Indicator icators (any one in the Water (A1) Vater Table (A2)	rs:	ifficient)	MLRA	A 1, 2, 4A	`) (excep		Secor Wate	ndary Indicato er-Stained Le A and 4B)	ors (2 or mor eaves (B9) (N	e requirec
Primary Indi Surfac High W Satura	Layer (if present es): // /drology Indicato icators (any one in the Water (A1) Vater Table (A2) ation (A3)	rs:	ifficient)	MLRA Salt Crus	A 1, 2, 4A st (B11)	and 4B)) (excep		Secor Wate 4,	ndary Indicate er-Stained Le A and 4B) nage Pattern	ors (2 or mor eaves (B9) (N s (B10)	e required
Restrictive Type: Depth (incher marks: DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water	Adver (if present es): Adver	rs:	ifficient)	MLRA Salt Crus Aquatic	A 1, 2, 4A st (B11) Invertebra	and 4B)) (excep		Secon Wate 4, Drair Dry-S	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate	ors (2 or mor eaves (B9) (N s (B10) er Table (C2)	e required
CDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime	Adver (if present es): Adrology Indicator icators (any one in the Water (A1) Vater Table (A2) ation (A3) Marks (B1) ent Deposits (B2)	rs:		MLRA Salt Crus Aquatic Hydroge	A 1, 2, 4A st (B11) Invertebra en Sulfide	and 4B) ates (B13 Odor (C	(exception))))))))))))))))))))))))))))))))))))	<u> </u>	Secor Wate 4, Drair Dry-S	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible	ors (2 or moreaves (B9) (Moss (B10)) er Table (C2)	e required
Primary Indi Surfac High W Satura Water Sedime Drift De	Adver (if present less): Adver (if present	rs:	ifficient)	MLRA Salt Crus Aquatic Hydroge Oxidized	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp	and 4B) ates (B13 Odor (C	(exception) (exception) (exception)		Secor Wate 4, Drair Dry-S Satu Geor	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi	ors (2 or mor eaves (B9) (N s (B10) er Table (C2) e on Aerial Im	e required
Restrictive Type: Depth (inche marks: DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De	A control of the cont	rs:		MLRA Salt Crue Aquatic Hydroge Oxidized Presence	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu	and 4B) ates (B13 Odor (C oheres ald	(C4)	Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard	ors (2 or moreaves (B9) (Nos (B10)) er Table (C2) e on Aerial Imition (D2) (D3)	e required
Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De	A contract of the contract of	rs: dicator is su		MLRA Salt Crue Aquatic Hydroge Oxidized Presenc Recent I	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu	ates (B13 Odor (Control otheres alcouced Iron liction in F	(C4)	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes	ors (2 or moreaves (B9) (Nos (B10)) er Table (C2) e on Aerial Imition (D2) (D3) t (D5)	e required ILRA 1, 2
Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Surfac Surfac	Adver (if present less): Adver (if present less): Adver (Advertised less): Adver (Advertised less): Adver (Advertised less): Advertised less)	rs: dicator is su	<u> </u>	MLRA Salt Crue Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	ates (B13 Odor (C ² oheres alcuced Iron action in F	(C4) Plowed So (D1) (LI	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun	ors (2 or more eaves (B9) (Moss (B10)) er Table (C2) er on Aerial Imition (D2) (D3) tr (D5) eds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Restrictive Type: Depth (inche marks: DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac (Inunda	rayer (if present es): rayer (if present es): rayer (or longy Indicator icators (any one in es Water (A1) Vater Table (A2) ation (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ee Soil Cracks (B6 ation Visible on Ae	rs: dicator is su	X 	MLRA Salt Crue Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu	ates (B13 Odor (C ² oheres alcuced Iron action in F	(C4) Plowed So (D1) (LI	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun	ors (2 or moreaves (B9) (Nos (B10)) er Table (C2) e on Aerial Imition (D2) (D3) t (D5)	e required //LRA 1, 2) nagery (CS
Restrictive Type: Depth (inche emarks: //DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac X Inunda Sparse	Adver (if present less): Adrology Indicator (any one in less Water (A1) Vater Table (A2) Ation (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) less Soil Cracks (B6 ation Visible on Ae less (B9) ely Vegetated Con	rs: dicator is su	X 	MLRA Salt Crue Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	ates (B13 Odor (C ² oheres alcuced Iron action in F	(C4) Plowed So (D1) (LI	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun	ors (2 or more eaves (B9) (Moss (B10)) er Table (C2) er on Aerial Imition (D2) (D3) tr (D5) eds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac X Inunda Sparse Field Obser	Layer (if present es): // /drology Indicator /icators (any one in /ee Water (A1) Vater Table (A2) Ation (A3) Marks (B1) /ent Deposits (B2) /eposits (B3) Mat or Crust (B4) /eposits (B5) /ee Soil Cracks (B6 /etion Visible on Ae /ely Vegetated Con /rvations:	rs: dicator is su rial Imagery cave Surface	(B7) e (B8)	MLRA Salt Cru: Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu dron Redu or Stress	and 4B) ates (B13 Odor (C' oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed So (D1) (LI	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun	ors (2 or more eaves (B9) (Moss (B10)) er Table (C2) er on Aerial Imition (D2) (D3) tr (D5) eds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac X Inunda Sparse Field Obser Surface Wa	Eayer (if present (r) (r) (r) (r) (r) (r) (r) (r	rs: dicator is su	X 	MLRA Salt Cru: Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu Iron Redu or Stress	and 4B) ates (B13 Odor (C' oheres ald uced Iron uction in F ed Plants Remarks	(C4) Plowed So (D1) (LF	y Roots (C3)	Secor Wate 4, Drair Dry-S Satu Geor Shall FAC Rais	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun	ors (2 or more eaves (B9) (Moss (B10)) er Table (C2) er on Aerial Imition (D2) (D3) tr (D5) eds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac X Inunda Sparse Field Obser Surface Wa Water table Saturation F	es): // //drology Indicator // /drology Indicator // // // water (A1) Vater Table (A2) // /dion (A3) Marks (B1) // ent Deposits (B2) // // // // // // // // // // // // //	rs: dicator is su rial Imagery cave Surface	(B7)ee (B8)	MLRA Salt Cru: Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu fron Redu or Stress explain in	and 4B) ates (B13 Odor (C' oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed So (D1) (LF	y Roots (C3)	Secor Wate 4/ Drair Dry-S Satu Geor Shall FAC Rais Frosi	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun t-Heave Hum	ors (2 or more eaves (B9) (Moss (B10)) er Table (C2) er on Aerial Imition (D2) (D3) tr (D5) eds (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary Indi Surfac High W Satura Water Sedime Drift De Surfac Algal M Iron De Surfac X Inunda Sparse Field Obser Surface Wa Water table Saturation F (includes ca	es): // //drology Indicator // /drology Indicator // // /drology Indicator // // // // // // // // // // // // //	rs: dicator is su rial Imagery cave Surfac Yes Yes Yes	(B7) ee (B8) No X No X No X	MLRA Salt Cru: Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu fron Redu or Stress explain in (inches): (inches):	and 4B) ates (B13 Odor (C' oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A) Wetland Hy	Secor Wate 4/ Drair Dry-S Satu Geor Shall FAC Rais Frosi	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun t-Heave Hum	ors (2 or moreaves (B9) (Nos (B10)) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ods (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac X Inunda Sparse Field Obser Surface Wa Water table Saturation F (includes ca	es): // //drology Indicator // /drology Indicator // // // water (A1) Vater Table (A2) // /dion (A3) Marks (B1) // ent Deposits (B2) // // // // // // // // // // // // //	rs: dicator is su rial Imagery cave Surfac Yes Yes Yes	(B7) ee (B8) No X No X No X	MLRA Salt Cru: Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebra en Sulfide d Rhizosp ee of Redu fron Redu or Stress explain in (inches): (inches):	and 4B) ates (B13 Odor (C' oheres alc uced Iron uction in F ed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A) Wetland Hy	Secor Wate 4/ Drair Dry-S Satu Geor Shall FAC Rais Frosi	ndary Indicate er-Stained Le A and 4B) nage Pattern Season Wate ration Visible morphic Posi low Aquitard -Neutral Tes ed Ant Moun t-Heave Hum	ors (2 or moreaves (B9) (Nos (B10)) er Table (C2) e on Aerial Imition (D2) (D3) t (D5) ods (D6) (LRI	e required //LRA 1, 2) nagery (CS

	_	-	State: <u>WA</u> , Range: <u>S1, T4N, R1W</u>	Sampling P	oint:	34
	_	-	, Range: S1, T4N, R1W			
	Localro			•		
	_ LUCALIE	lief (concav	e, convex, none): none		Slope (%):	0-1%
Lat: _	45.850967°		Long: 122.77460	3°	Datum:	WGS 84
			NWI Classification:	none		
is time of y	/ear?	Yes ː		• '		-
						No
_					·	
	_					
		•	Y SAY	No		
	Within a	1 Wetianu:				
Alternative and a second			Dawingan Toot worksho			
Absolute % Cover						
% COVE	Species	Status	•			
				1C.	2	_(A)
		!	Total Number of Dominant			
		!	Species Across Aii Siraia.		2	_(B)
0)0%	_(A/B)
		I	Provolence Index Worksh	4.		
		ŀ			inly by:	
			-	-		-
				-		=
						=
				-	0	-
0			UPL species	-	0	=
		ŀ	Column Totals: 0			(B)
15		FAC	Prevalence Index = B/A =	- ` ′ ———		
	Υ	FACW				·
50	Υ	FAC	Hydrophytic Vegetation In	dicators:		
0.1		OBL	1 - Rapid Test for	Hydrophytic Ve	getation	
5		FACW	X 2 - Dominance Tes	st is >50%		
			##### 3 - Prevalence Ind	ex is ≤3.0 ¹		
		!	4 - Morphological /	Adaptation1 (Pr	ovide suppo	orting
		!	data in Remarks o	r on a separate	sheet)	
			5 - Wetland Non-V	ascular Plants ¹		
			Problematic Hydro	phytic Vegetati	on¹ (Explain	1)
		'				
110.1		ļ				
			Hydronhytic			
0			, , ,			
over of Bi	otic Crust	0		Yes X	No	
	0 15 40 50 0.1 5 110.1	naturally properties of the sampling of the sa	significantly disturbed? naturally problematic? howing sampling point locate Is the Sampled Area within a Wetland? Dominant Species? Indicator Status? 0 15 FAC 40 Y FACW 50 Y FAC 0.1 OBL 5 FACW 110.1	Absolute naturally problematic? (If needed, explain any an any any any any any any any any	significantly disturbed? naturally problematic? Are "Normal Circumstances" Present? (If needed, explain any answers in Remandowing sampling point locations, transects, important features	significantly disturbed? naturally problematic? (If needed, explain any answers in Remarks.) nowing sampling point locations, transects, important features, etc. Is the Sampled Area within a Wetland?

Depth	Matrix			Redox Featu	162		•				
(inches)	Color (moist)	%	Color (mo	ist) %	Type ¹	Loc ²	Textur	е		Remarks	
0-2	10 YR 3/2	100					SILT LOA	M			
2-7	10 YR 4/1	88	5 YR 4/4	5	С	М	SILT LOA	.M			
			7.5 YR 5/1	5	D	М					
			5 YR 4/4	2	С	PL					
7-16	7.5 YR 5/1	75	5 YR 3/4	18	С	М	SILT LOA	.M			
			10 YR 4/4	5	С	М					
			5 YR 3/4	2	С	PL					
									-		
¹ Type: C=0	Concentration, D=[Depletion, RI	M=Reduced M	latrix, CS=Cove	red or Co	ated San	d Grains. ² L	ocation:	: PL=Pore Lir	ning, M=Matrix.	
Hydric Soi	I Indicators: (App	olicable to a	II LRRs, unle	ss otherwise n	oted.)		Indicators		oblematic Hy		
Histos	sol (A1)		s	andy Redox (S5	5)				cm Muck (A1		
Histic	Epipedon (A2)		s	stripped Matrix (S	36)			R	Red Parent Ma	aterial (TF2)	
Black	Histic (A3)		Lo	oamy Mucky Mir	neral (F1)	(except	MLRA 1)	C	Other (Explain	in Remarks)	
Hydro	gen Sulfide (A4)		Lo	oamy Gleyed Ma	atrix (F2))					
X Deple	ted Below Dark Su	rface (A11)	D	epleted Matrix (F3)						
Thick	Dark Surface (A12	2)	R	Redox Dark Surfa	ace (F6)		³ Indi	cators o	of hydrophytic	vegetation and	l
	/ Muck Mineral (S1		D	epleted Dark Su	urface (F7	7)			ydrology mus	•	
	, gleyed Matrix (S4			Redox Depressio					disturbed or pr	•	
Restrictive	Layer (if present):									
Type: Depth (inch	nes):					Н	ydric Soil Pr	esent?	,	Yes <u>X</u>	No
Type: Depth (inch emarks:						Н	ydric Soil Pr	esent?	,	Yes <u>X</u>	No
Type: Depth (inchemarks:		rs:				н	ydric Soil Pr	esent?	,	Yes <u>X</u>	No
Type: Depth (inchemarks: YDROLOG Wetland Hy	Y		fficient)			H	/dric Soil Pr			Yes X	
Type: Depth (inchemarks: 'DROLOG' Wetland Hy	Y ydrology Indicato			Vater-Stained Le	eaves (B9			Se	econdary Indic		re required
Type: Depth (inchemarks: DROLOG Wetland Hyprimary Independent	Y ydrology Indicato licators (any one in			Vater-Stained Le	•) (except		Se	econdary Indic	cators (2 or mo	re required
Type: Depth (inchemarks: DROLOG Wetland Hy Primary Ind Surfac High V	Y ydrology Indicato licators (any one in ce Water (A1)		W		•) (except		SeV	econdary Indic Vater-Stained	cators (2 or mod Leaves (B9) (I	re required
Type: Depth (inchermarks: TOROLOG Wetland Hy Primary Ind Surfac High V	ydrology Indicato licators (any one in ce Water (A1) Water Table (A2)		w	MLRA 1, 2, 4A	and 4B)) (except		SeV	econdary Indic Vater-Stained 4A and 4B) Orainage Patte	cators (2 or mod Leaves (B9) (I	re required
Type: Depth (inchemarks: TOROLOG Wetland Hy Primary Ind Surfac High V Satura Water	ydrology Indicator licators (any one in ce Water (A1) Water Table (A2) ation (A3)			MLRA 1, 2, 4A Salt Crust (B11)	and 4B)	(except		Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	cators (2 or mod Leaves (B9) (I) erns (B10)	re required WLRA 1, 2
Type: Depth (inchemarks: TOROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1)		W S A	MLRA 1, 2, 4A salt Crust (B11) equatic Invertebra	and 4B) ates (B13	9) (except 3) 1)		Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W	cators (2 or mode Leaves (B9) (I) erns (B10) later Table (C2 ble on Aerial In	re required WLRA 1, 2
Type:	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		W s A H X O	MLRA 1, 2, 4A salt Crust (B11) quatic Invertebra lydrogen Sulfide	and 4B) ates (B13 Odor (Coheres alcoheres	(except			econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi	cators (2 or mon Leaves (B9) (I erns (B10) dater Table (C2 ble on Aerial In osition (D2)	re required WLRA 1, 2
Type: Depth (inchemarks: TOROLOG Wetland Hy Primary Ind Surfac High W Satura Water Sedim Drift D Algal I	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		W S A H X O	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra lydrogen Sulfide Oxidized Rhizosp	ates (B13 Odor (Coheres alcouced Iron	(C4)	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po	cators (2 or mode Leaves (B9) (I Derns (B10) Cater Table (C2 ble on Aerial In Osition (D2) and (D3)	re required WLRA 1, 2
Type: Depth (inch emarks: YDROLOG' Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)	dicator is su	W S A H X O P R	MLRA 1, 2, 4A salt Crust (B11) equatic Invertebra lydrogen Sulfide exidized Rhizosp dresence of Redu	ates (B13 Odor (Coheres alcouced Iron Juction in F	(C4)	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T	cators (2 or mode Leaves (B9) (I Derns (B10) Cater Table (C2 ble on Aerial In Osition (D2) and (D3)	re required MLRA 1, 2) nagery (CS
Type: Depth (inch emarks: YDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6	dicator is su	W S H X O P R S	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu decent Iron Redu stunted or Stress	ates (B13 Odor (Control of the control (C4) Plowed So	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mode) Leaves (B9) (In the case of the cas	re required MLRA 1, 2) nagery (CS	
Type:	y ydrology Indicato licators (any one in ce Water (A1) Nater Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) deposits (B5)	dicator is su	W S H X O P R S (B7) O	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp resence of Redu decent Iron Redu	ates (B13 Odor (Control of the control (C4) Plowed So	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mode Leaves (B9) (I erns (B10) ater Table (C2 ble on Aerial In osition (D2) ard (D3) est (D5)	re required MLRA 1, 2) nagery (CS	
Type:	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Con	dicator is su	W S H X O P R S (B7) O	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu decent Iron Redu stunted or Stress	ates (B13 Odor (Control of the control (C4) Plowed So	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mode) Leaves (B9) (In the case of the cas	re required MLRA 1, 2) nagery (CS	
Type:	y ydrology Indicato licators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6 ation Visible on Ae ely Vegetated Con ervations:	dicator is su	W S H X O P R S (B7) O	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu decent Iron Redu stunted or Stress	and 4B) ates (B13 Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So	Roots (C3)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mode) Leaves (B9) (In the case of the cas	re required MLRA 1, 2) nagery (CS
Type:	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Conservations: ater Present?) rial Imagery cave Surfac	W S A H X O P C S S C S C S C S C C	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu excent Iron Redu extented or Stress other (Explain in Depth (inches): Depth (inches):	and 4B) ates (B13 Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mode Leaves (B9) (Incomplete (B10)) Parter Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) nagery (CS
Type: Depth (inch emarks: YDROLOG' Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac Inunda Spars Field Obse Surface Water table Saturation I	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Concervations: ater Present? Present?	dicator is su rial Imagery cave Surfac	W S A H X O O C C C C C C C C	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu execent Iron Redu extunted or Stress other (Explain in	and 4B) ates (B13 Odor (C) oheres alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A)		econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mode) Leaves (B9) (In the case of the cas	re required MLRA 1, 2) nagery (CS
Type: Depth (inch emarks: YDROLOGY Wetland Hy Primary Ind Surface High W Satura Water Sedim Drift D Algal I Iron D Surface Inunda Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Contervations: ater Present? Present? apillary fringe)) rial Imagery cave Surfac Yes Yes Yes	W S A H X O O C S C S C C C C C C	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu excent Iron Redu extented or Stress other (Explain in Depth (inches): Depth (inches): Depth (inches):	ates (B13 Odor (Conheres alcounced Iron puction in Fixed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mode Leaves (B9) (Incomplete (B10)) Parter Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) nagery (CS
Type: Depth (inch emarks: YDROLOG' Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac Inunda Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Concervations: ater Present? Present?) rial Imagery cave Surfac Yes Yes Yes	W S A H X O O C C C C C C C C	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu excent Iron Redu extented or Stress other (Explain in Depth (inches): Depth (inches): Depth (inches):	ates (B13 Odor (Conheres alcounced Iron puction in Fixed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mode Leaves (B9) (Incomplete (B10)) Parter Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) nagery (C9
Type: Depth (inch emarks: YDROLOG' Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac Inunda Spars Field Obse Surface Wa Water table Saturation I (includes ca	ydrology Indicators (any one ince Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6 ation Visible on Ae ely Vegetated Contervations: ater Present? Present? apillary fringe)) rial Imagery cave Surfac Yes Yes Yes	W S A H X O O C C C C C C C C	MLRA 1, 2, 4A calt Crust (B11) equatic Invertebra dydrogen Sulfide exidized Rhizosp dresence of Redu excent Iron Redu extented or Stress other (Explain in Depth (inches): Depth (inches): Depth (inches):	ates (B13 Odor (Conheres alcounced Iron puction in Fixed Plants Remarks	(C4) Plowed So (D1) (LF	Roots (C3) pils (C6) RR A) Wetland H	Se	econdary Indic Vater-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mode Leaves (B9) (Incomplete (B10)) Parter Table (C2) ble on Aerial Incosition (D2) and (D3) est (D5) punds (D6) (LR	re required MLRA 1, 2) nagery (C9

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty			Sampling I	Date:	8/6/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: \	WA	Sampling I	Point:	35
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N	l, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_	elief (concav		· -			_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°	1		Long:	122.77460	6°	Datum	WGS 84
Soil Map Unit Nam		•					•	ssification:	none		
Are climatic / hydro	ologic conditions on t	• •	-		·-		_		(If no, explain		
Are Vegetation	, Soil										_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, exp	lain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	howing	sampling	point loca	ations,	transec	ts, impo	rtant featur	es, etc.	
Hydrophytic Vegeta	ation Present?	Yes X No									
Hydric Soil Presen		Yes X No			ampled Are a Wetland?		Yes	X	No		
Wetland Hydrology	y Present?	Yes X No		WILLIIII	a vvettanu:		_				
Remarks:	•			<u> </u>							
VEGETATION											
			Absolute	Dominant	Indicator	Domina	ance Test	tworkshe	et:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Numbe	r of Domir	nant Speci	es		
1.	,					That Ar	e OBL, FA	ACW, or F	AC:	2	(A)
2.						Total N	umber of	Dominant			_` '
3.						Species	Across A	All Strata:		2	(B)
4.						Percent	t of Domin	nant Specie	es =====		_
		Total Cover:	0					ACW, or F		100%	_(A/B)
Shrub Stratum 1.							ence Inde	x Worksh		Itiply by:	_
2						OBL sp	_		x1 =	0	_
3.							_			0	_
4						FAC sp	_		x3 =	0	_
5						FACU s	-		_x4 =	0	_
Llaub Otratura		Total Cover:	0			UPL sp	_		x5 =	0	
Herb Stratum 1. Plantago lance	ooloto		0.1		FACU			0 ex = B/A =		0	_(B)
 Plantago lance Phalaris arund 			0.1 50	<u></u>	FACW	Fleva	nence ma	ex – b/A –	#01	V/U!	_
Agrostis capilla				Y	FAC	Hydron	hytic Vec	getation In	dicators:		
Persicaria hydi			10		OBL	riyarop			Hydrophytic V	egetation	
					· 	Х	•	inance Te		9901411.011	
		<u> </u>			. ———	#####	3 - Prev	alence Ind	ex is ≤3.0 ¹		
_							4 - Morg	hological A	Adaptation1 (F	Provide supp	orting
•								_	r on a separat		Ü
^		•							ascular Plants		
							Problem	natic Hydro	phytic Vegeta	tion ¹ (Explai	n)
							- "				
		Total Cover:	110.1								
Woody Vine S	<u>tratum</u>								d wetland hydr d or problemat		
2.						Hydrop	hytic				
		Total Cover:	0	· <u> </u>		Vegeta	•				
% Bai	re Ground in Herb St				0	Presen			Yes X	No	
Remarks:											

(inches)			Re	dox Featu			•	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
	10 YR 4/2	100					SILT LOAM	
2-5	10 YR 4/2	75	7.5 YR 4/6	5	С	M	SILT LOAM	
			10 YR 6/1	10	D	M		<u> </u>
			10 YR 4/6	5	С	M		_
			5 YR 4/1	5	D	M		_
5-8	10 YR 5/1	75	5 YR 4/4	10	С	M	SILT LOAM	_
			7.5 YR 4/6	5	С	M		<u> </u>
			5 YR 6/1	5	<u>D</u>	M		
			5 YR 4/1	5	<u>D</u>	M		<u> </u>
8-16	10 YR 5/1	80	5 YR 3/4	10	<u>C</u>	PL	SILT LOAM	<u> </u>
		·	5 YR 6/1	5	<u>D</u>	M		<u> </u>
T 0 C	Concentration, D=Dep	lation D	5 YR 3/3	5	<u>C</u>	<u>M</u>	1 0 : - 21	eation: PL=Pore Lining, M=Matrix.
Hydrog Deplet Thick I Sandy Sandy Restrictive Type: Depth (inche	Histic (A3) gen Sulfide (A4) ged Below Dark Surface Dark Surface (A12) Muck Mineral (S1) gleyed Matrix (S4) Layer (if present):	ce (A11)	Loamy X Deplete Redox Deplete	Mucky Min Gleyed M. ed Matrix (Dark Surfa ed Dark Su Depressio	atrix (F2) (F3) ace (F6) urface (F7	7)	³ Indica wetl	Other (Explain in Remarks) tors of hydrophytic vegetation and and hydrology must be present, less disturbed or problematic.
emarks:						1 -		
/DROLOGY	/ /drology Indicators:							
/DROLOGY Wetland Hy			fficient)					Secondary Indicators (2 or more required
<mark>′DROLOGY</mark> Vetland Hy ⊃rimary Indi	drology Indicators:			Stained Le	eaves (B9			Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2
/DROLOGY Wetland Hy Primary Indi Surfac High W	vdrology Indicators: icators (any one indicate we Water (A1) Vater Table (A2)		Water-	A 1, 2, 4A) (except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B)
'DROLOGY Wetland Hy Primary Indi Surfac High W Satura	vdrology Indicators: icators (any one indicate water (A1) Vater Table (A2) vtion (A3)		Water- MLR Salt Cri	A 1, 2, 4A ust (B11)	and 4B)) (except		Secondary Indicators (2 or more required Water-Stained Leaves (B9) (MLRA 1, 2 4A and 4B) Drainage Patterns (B10)
Metland Hy Primary Indi Surfac High W Satura Water	vdrology Indicators: icators (any one indicators (A1) water (A1) Vater Table (A2) tition (A3) Marks (B1)		Water MLR Salt Cri Aquatic	A 1, 2, 4A ust (B11) c Invertebr	and 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)
OROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime	vdrology Indicators: icators (any one indicate Water (A1) Vater Table (A2) ition (A3) Marks (B1) ent Deposits (B2)		Water-Salt Cri Aquatic Hydrog	A 1, 2, 4A ust (B11) Invertebren Sulfide	and 4B) 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) Saturation Visible on Aerial Imagery (C9)
/DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime	vidrology Indicators: icators (any one indicators (any one indicators) icators (A1) Vater (A2) Vater Table (A2) Aution (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-s MLR Salt Cro Aquatic Hydrog X Oxidize	A 1, 2, 4A ust (B11) Invertebren Sulfide ed Rhizosp	and 4B) rates (B13 e Odor (C2 cheres alo) (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 (C3) Geomorphic Position (D2)
/DROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De	vidrology Indicators: icators (any one indicators (any one indicators) water (A1) Vater Table (A2) tition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)		Water-s MLR Salt Cro Aquatic Hydrog X Oxidize Presen	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospece of Red	ates (B13 e Odor (C´ oheres alo) (except i) 1) ong Living (C4)		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)
Primary Indi Surfac High W Satura Water Sedime Drift De	vidrology Indicators: icators (any one indicators (any one indicators) water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5)		Water-S MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent	A 1, 2, 4A ust (B11) c Invertebr en Sulfide ed Rhizosp ce of Red Iron Redu	ates (B13 Odor (C2 Oheres alo uced Iron uction in F	(C4)		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) FAC-Neutral Test (D5)
YDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De	vidrology Indicators: icators (any one indicators (any one indicators) we Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) we Soil Cracks (B6)	ator is su	Water-s MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red d or Stress	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	(C4) Plowed So		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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac	vidrology Indicators: icators (any one indicators (any one indicators) icators (A1) Vater Table (A2) ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ie Soil Cracks (B6) ation Visible on Aerial	ator is su	Water-S MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Water-S	A 1, 2, 4A ust (B11) c Invertebr en Sulfide ed Rhizosp ce of Red Iron Redu	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	(C4) Plowed So		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) FAC-Neutral Test (D5)
YDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal M Iron De Surfac Inunda	vidrology Indicators: icators (any one indicators (any one indicators) we Water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) we Soil Cracks (B6)	ator is su	Water-S MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Water-S	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red d or Stress	ates (B13 e Odor (C2 oheres alo uced Iron uction in F	(C4) Plowed So		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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac Inunda Sparse	rdrology Indicators: icators (any one indicators (any one indicators (any one indicators) water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ie Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations:	ator is su Imagery ve Surfac	Water-s MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Other (1996)	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu d or Stress Explain in	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So		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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac Inunda Sparse Field Obser Surface Wa	rdrology Indicators: icators (any one indici- icators (any one indici- icators (any one indici- icators (any one indici- icators (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) ication Visible on Aerial ely Vegetated Concavervations: Iter Present? Yes	Imagery ve Surfac	Water-s MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Other (188) No X Depti	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red d or Stress Explain in	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So		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) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
YDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac Inunda Sparse Field Obser Surface Wa Water table	rdrology Indicators: icators (any one indicators (any one indicators) water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations: Iter Present? Yes Present?	Imagery	Water-s MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Other (188) Other (188) Option Depti Depti Depti Other Option Depti Depti Other	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red d or Stress Explain in h (inches)	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So	Roots (C3) <u>></u> sils (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 (C3 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY Wetland Hy Primary Indi Surfac High W Satura Water Sedime Drift De Algal N Iron De Surfac Inunda Sparse Surface Wa Water table Saturation F	rdrology Indicators: icators (any one indicators (any one indicators) water (A1) Vater Table (A2) Ition (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations: Iter Present? Yes Present?	Imagery	Water-s MLR Salt Cri Aquatic Hydrog X Oxidize Presen Recent Stuntec (B7) Other (188) Other (188) Option Depti Depti Outline Control Contro	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red d or Stress Explain in	and 4B) rates (B13 rates (C2 rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed So	Roots (C3) <u>></u> sils (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 (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	tud Area	City/County:	Clark Cour	nty		Sampling [Date:	8/6/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling F	Point:	36
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)	Lat:	45.850967°)		Long: 122.77460	6°	_ Datum:	: WGS 84
Soil Map Unit Nam							NWI Classification:	PFOC		
Are climatic / hydro	ologic conditions on the	ne site typical for tl	nis time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	;)
Are Vegetation	, Soil						Normal Circumstanc	es" Present?	Yes X	_No
Are Vegetation	, Soil	_, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	howing	sampling	point loca	ations, 1	transects, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No								
Hydric Soil Presen	t?	Yes X No			ampled Are a Wetland?		Yes X	No		
Wetland Hydrology	y Present?	Yes X No		WILLIIII	a vvetianu:			-		
Remarks:		<u> </u>	-							
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test workshe	ot•		
Trop Ctratum (11	aa aaiantifia namaa \		% Cover		Status?		of Dominant Specie			
`	se scientific names.)				· ——		e OBL, FACW, or F		1	(4)
<u> </u>					· ——	Total Ni	umber of Dominant		1	_(A)
2					· ——		Across All Strata:		1	(B)
4					· ——	Doroont	of Dominant Cresi		•	_(D)
		Total Cover:	0				of Dominant Specie e OBL, FACW, or F		00%	_(A/B)
Charle Ctratum						Drevele	maa laday Madada	4-		
Shrub Stratum 1							ence Index Workshotal % Cover of:		tiply by:	
2		_				OBL sp			0	=
3.					· ——		species		0	_
4.						FAC sp		x3 =	0	-
5.		_				-	pecies		0	=
		Total Cover:	0			UPL spe		x5 =	0	_
Herb Stratum						Column	Totals: 0	(A)	0	 (B)
1. Holcus lanatus	3		80	Υ	FAC	Preva	lence Index = B/A =	#DI\	//0!	_
2. Lotus cornicula	atus		0.1		FAC					
 Agrostis capilla 	aris		10		FAC	Hydrop	hytic Vegetation In	dicators:		
 Persicaria hyd 	ropiperoides		0.1		OBL		1 - Rapid Test for		egetation	
5. Trifolium prate			5		FACU	X	2 - Dominance Te			
6. Trifolium reper	าร		10		FAC	#####	3 - Prevalence Ind			
·							4 - Morphological			orting
							data in Remarks o			
						 	5 - Wetland Non-V			
					· 		Problematic Hydro	phytic Vegeta	tion' (Explai	n)
11										
		Total Cover:	105.2			1				
Woody Vine S	<u>tratum</u>						ors of hydric soil and ent, unless disturbed			
1.		_				ne biese	ent, uniess disturbed	o problemat	IC.	
2		Total Cavar				Hydrop	•			
0/ D=	re Ground in Herb Str	Total Cover:			0	Vegetat Present		Voc V	No	
	re Ground in Heib Sti	a.u.ii <u> </u>	COVEI OI BI	one crust		riesen	ι:	Yes X	No	
Remarks:										

Depth	scription: (Describe Matrix			Redox Featu	ıres						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textur	e		Remarks	
0-1	10 YR 3/2	100					SANDY L	OAM			
1-4	10 YR 5/1	90	10 YR 4/4	10	С	М	LOAMY S	AND			
4-8	10 YR 5/1	85	10 YR 4/4	5	С	M	SANDY L	OAM			
			10 YR 4/4	5	С	PL					
			5 YR 4/4	5	С	PL					
8-16	10 YR 5/1	65	5 YR 3/4	25	С	М	SANDY L	OAM			
			5 YR 3/4	5	С	PL					
			10 YR 6/1	5	D	M					
¹ Type: C=0	Concentration, D=Dep	oletion, RM	=Reduced Matr	ix, CS=Cove	red or Co	ated San	d Grains. ² L	ocation	PL=Pore I	Lining, M=Matri	K .
Hydric Soi	I Indicators: (Applic	able to all	LRRs, unless	otherwise n	oted.)		Indicators	s for Pr	roblematic l	Hydric Soils ³ :	
Histos	sol (A1)		San	dy Redox (S	5)				2 cm Muck (
Histic	Epipedon (A2)		Strip	ped Matrix (S6)			F	Red Parent I	Material (TF2)	
Black	Histic (A3)			ny Mucky Mi		-	MLRA 1)	(Other (Expla	in in Remarks)	
Hydro	gen Sulfide (A4)		Loar	my Gleyed M	atrix (F2)						
X Deple	ted Below Dark Surfa	ce (A11)	Dер	leted Matrix (F3)						
Thick	Dark Surface (A12)		Red	ox Dark Surfa	ace (F6)		³ Indi	cators o	of hydrophyt	tic vegetation ar	ıd
Sandy	/ Muck Mineral (S1)		Dep	leted Dark Sı	urface (F7	')	W	etland h	nydrology mi	ust be present,	
Sandy	gleyed Matrix (S4)		Red	ox Depressio	ns (F8)			unless	disturbed or	problematic.	
Restrictive	Layer (if present):										
Type:											
Depth (inch	nes):					Ну	ydric Soil Pr	esent?		Yes X	No
Depth (inch	Y					Ну	ydric Soil Pr	esent?		Yes X	No
Depth (inche) Remarks: HYDROLOG Wetland H	Y ydrology Indicators:					Hy	ydric Soil Pr				
Depth (inchested in the control of t	Y ydrology Indicators: licators (any one indic							Se	econdary Inc	dicators (2 or m	ore required
Depth (inch Remarks: IYDROLOG Wetland Hy Primary Ind Surface	Y ydrology Indicators: licators (any one indic ce Water (A1)		Wat	er-Stained Le) (except		Se	econdary Ind Water-Staine	dicators (2 or med Leaves (B9)	ore required
Depth (inch Remarks: IYDROLOG Wetland H Primary Ind Surfac High V	Y ydrology Indicators: licators (any one indicators (A1) Water Table (A2)		Wat	LRA 1, 2, 4A) (except		<u>Se</u>	econdary Ind Water-Staine 4A and 4	dicators (2 or med Leaves (B9)	ore required
Depth (inche lemarks: IYDROLOG Wetland High V Surfac High V Satura	Y ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3)		Wat M Salt	LRA 1, 2, 4 Crust (B11)	and 4B)) (except			econdary Ind Water-Staind 4A and 4 Drainage Pa	dicators (2 or med Leaves (B9) B) itterns (B10)	ore required
Depth (inche lemarks: IYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water	ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3)		Wat M Salt Aqu	LRA 1, 2, 4A Crust (B11) atic Invertebr	and 4B)) (except		Se	econdary Ind Water-Staine 4A and 4 Orainage Pa Ory-Season	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (C	ore required (MLRA 1, 2
Depth (inches Primary Indexes	ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		Wat M Salt Aqui	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide	and 4B) ates (B13 Odor (C) (except			econdary Ind Water-Staine 4A and 4 Orainage Pa Ory-Season Saturation V	dicators (2 or med Leaves (B9) B) htterns (B10) Water Table (C	ore required (MLRA 1, 2
Depth (inche lemarks: IYDROLOG Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D	ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		Wat Salt Aqua Hyda X Oxice	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp	and 4B) ates (B13 Odor (C) (except			econdary Inc Water-Stains 4A and 4 Orainage Pa Ory-Season Saturation V Geomorphic	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2)	ore required (MLRA 1, 2
Depth (inche lemarks: IYDROLOG Wetland High V Surface High V Satura Water Sedim Drift D Algal	yydrology Indicators: licators (any one indicators (Any one indicators) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)		Wat M Salt Aqui Hydi X Oxio	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp sence of Red	ates (B13 Odor (C´ oheres alo) (except) 1) ing Living (C4)	Roots (C3)		econdary Inc Water-Staine 4A and 4 Orainage Pa Ory-Season Saturation V Geomorphic Shallow Aqu	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2)	ore required (MLRA 1, 2
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D	y ydrology Indicators: licators (any one indicators (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)		Wat M Salt Aqua Hyda X Oxic Pres Reco	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp sence of Red ent Iron Redu	ates (B13 Odor (C2 Oheres alouced Iron action in F) (except) I) ong Living (C4) Plowed Sc	Roots (C3)		econdary Inc Water-Staine 4A and 4 Orainage Pa Ory-Season Saturation V Geomorphic Shallow Aqu	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5)	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: IYDROLOG Wetland Hy Primary Ind Surfac High V Satura Water Sedim Drift D Algal I Iron D Surfac	ydrology Indicators: dicators (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)	ator is suff	Wat M Salt Aqui Hydr X Oxic Pres Reco	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp sence of Red ent Iron Redu ated or Stress	ates (B13 Odor (C2 Oheres alo uced Iron uction in F) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (LI	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: IYDROLOG Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal I Iron D Surface Inunda	yydrology Indicators: licators (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) De Soil Cracks (B6) ation Visible on Aerial	ator is suff	Wate Wate	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp sence of Red ent Iron Redu	ates (B13 Odor (C2 oheres alo uced Iron uction in F) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5)	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars	y ydrology Indicators: licators (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) ation Visible on Aerial ely Vegetated Concav	ator is suff	Wate Wate	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide lized Rhizosp sence of Red ent Iron Redu ated or Stress	ates (B13 Odor (C2 oheres alo uced Iron uction in F) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (LI	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: Semarks: SYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse	yydrology Indicators: licators (any one indicators Marks (B1) Marks (B1) Marks (B1) Marks (B2) Marks (B3) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B4) Mat or Crust (B6) Mation Visible on Aerial Marks (B6) Mation Visible on Aerial Marks (B6) Mation Visible on Aerial Marks (B6) Mation Visible on Aerial Marks (B6) Mation Visible on Aerial Marks (B6) Mation Visible on Aerial Marks (B6) Marks (B6) Mation Visible on Aerial Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B6) Marks (B7) Marks	Imagery (l	Wate Wate M	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (LI	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: Semarks: SYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Water	y ydrology Indicators: licators (any one indicators gery (l	Wate Wate M	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in	and 4B) ates (B13 Odor (C' oheres ald uced Iron uction in F sed Plants Remarks) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or med Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (LI	ore required (MLRA 1, 2 2) Imagery (CS	
Depth (inche Remarks: Semarks: SYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse	y ydrology Indicators: licators (any one indicators (any one indicators (any one indicators) water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Desce Soil Cracks (B6) ation Visible on Aerial ately Vegetated Concators provations: ater Present? Yes	Imagery (l	Wate Wate	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or moded Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (L1) Hummocks (D5)	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Water table Saturation I	y ydrology Indicators: licators (any one indicators (any one indicators (any one indicators) water Table (A2) ation (A3) Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Desce Soil Cracks (B6) ation Visible on Aerial ately Vegetated Concators provations: ater Present? Yes	Imagery (l	Wate Wate	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks) (except 1) 1) ing Living (C4) Plowed Sc 5 (D1) (LF	Roots (C3)		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or moded Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (L1) Hummocks (D5)	ore required (MLRA 1, 2 2) Imagery (CS
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Water table Saturation I (includes ca	y ydrology Indicators: licators (any one indicators gery (leve Surface	Wate Wate M	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in epth (inches) epth (inches)	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks	(C4) (lowed Science)	Roots (C3) pils (C6) RR A) Wetland H		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or moded Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (L1) Hummocks (D5)	ore required (MLRA 1, 2 2) Imagery (CS	
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Wa Water table Saturation I (includes ca	y ydrology Indicators: licators (any one indicators gery (leve Surface	Wate Wate M	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in epth (inches) epth (inches)	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks	(C4) (lowed Science)	Roots (C3) pils (C6) RR A) Wetland H		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or moded Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (L1) Hummocks (D5)	ore required (MLRA 1, 2 2) Imagery (CS	
Depth (inche Remarks: IYDROLOG Wetland High V Primary Ind Surfac High V Satura Water Sedim Drift E Algal I Iron D Surfac Inunda Spars Field Obse Surface Water table Saturation I (includes ca	y ydrology Indicators: licators (any one indicators gery (leve Surface	Wate Wate M	LRA 1, 2, 4A Crust (B11) atic Invertebr rogen Sulfide dized Rhizosp sence of Red ent Iron Redu ated or Stress er (Explain in epth (inches) epth (inches)	and 4B) ates (B13 Odor (C ² oheres ald uced Iron uction in F sed Plants Remarks	(C4) (lowed Science)	Roots (C3) pils (C6) RR A) Wetland H		econdary Inc Water-Staine 4A and 4 Drainage Pa Dry-Season Saturation V Geomorphic Shallow Aqu FAC-Neutral Raised Ant M	dicators (2 or moded Leaves (B9) B) Itterns (B10) Water Table (Cisible on Aerial Position (D2) Itard (D3) Test (D5) Mounds (D6) (L1) Hummocks (D5)	ore required (MLRA 1, 2 2) Imagery (CS	

Project/Site:	Plas Newydd Farm-	Lancaster Lake S	Stud Area	City/County:	Clark Cour	nty		Sampling I	Date:	8/6/2014
Applicant/Owner:	Plas Newydd Farm,	LLC					State: WA	Sampling I	Point:	37
Investigator(s):	B. Haddaway, T.Sto	out		Section	n, Township	, Range:	S1, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Floodplain		_ Local re	elief (concav	e, convex	k, none): none		_Slope (%):	0-1%
Subregion (LRR):	Northwest Forests a	and Coast (LRR A)) Lat:	45.850967°)		Long: 122.7746	606°	Datum	: WGS 84
Soil Map Unit Nam	ne: Sauvie silty	clay loam					NWI Classification	n: PFOC		
Are climatic / hydro	ologic conditions on the	ne site typical for the	his time of y	/ear?	Yes 2	X	No	(If no, explair	า in Remarks	s)
Are Vegetation	, Soil	_, or Hydrology		significantly	disturbed?	Are "N	Normal Circumsta	nces" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any	answers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, imp	ortant featur	es, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1							
Hydric Soil Presen					ampled Are		Yes X	No		
Wetland Hydrology		Yes X No		within a	a Wetland?					
Remarks:	y i resent:	100 // 100	<u>'</u>							
VEGETATION										
			Absolute	Dominant	Indicator	Domina	ance Test worksh	neet:		
Tree Stratum (Us	se scientific names.)		% Cover	Species?	Status?	Numbe	r of Dominant Spe	ecies		
1.						That Ar	e OBL, FACW, or	FAC:	1	(A)
2						Total N	umber of Dominar	nt		
2		<u> </u>				Species	Across All Strata	:	1	(B)
4.						Percent	of Dominant Spe	cies		_ ` `
		Total Cover:	0				e OBL, FACW, or		100%	_(A/B)
Shrub Stratum							ence Index Works		litim la colonia	
					· 	-	tal % Cover of:		Itiply by:	_
2.		_			· 	OBL sp			0	_
3.							species		0	_
4. 						FAC sp		x3 =	0	_
o		Total Cover:				UPL sp	pecies		0	_
Llarb Ctratura		Total Cover.	0					x5 =		_ (D)
Herb Stratum	dinagan		100	V	FACW		Totals: 0		0	_(B)
 Phalaris arund 2. 	ıınacea		100	<u> </u>	TACV	Preva	lence Index = B/A	. = #DI	V/0!	_
-						I lycely a se	hydia Vanatatian	Indiantara.		
3.		_			· 	Hyarop	hytic Vegetation			
4					· 		1 - Rapid Test fo		egetation	
					· 	X	2 - Dominance			
					· 	#####	3 - Prevalence I			
							4 - Morphologica			orting
							data in Remarks			
							5 - Wetland Non			
							Problematic Hyd	drophytic Vegeta	tion' (Explai	n)
11										
		Total Cover:	100							
Woody Vine S	tratum_						ors of hydric soil a			
1						be pres	ent, unless disturb	ped or problemat	ic.	
2						Hydrop	hvtic			
		Total Cover:				Vegeta				
% Ba	re Ground in Herb St	ratum <u>0</u> %	Cover of Bi	otic Crust	0	Presen		Yes X	No	
Remarks:						•				

1-8 10 8-16 7.	Color (moist) O YR 3/2 O YR 4/1 5 YR 4/1	60 7	O YR 4/6 .5 YR 4/4 YR 3/4 YR 3/4	<u>%</u>	_ 1			
1-8 10 8-16 7.	0 YR 4/1 5 YR 4/1	90 1 60 7 5	.5 YR 4/4 YR 3/4		Type ¹	Loc ²	Texture	Remarks
8-16 7.	5 YR 4/1	60 7	.5 YR 4/4 YR 3/4				SANDY LOA	<u> </u>
¹ Type: C=Cond		5	YR 3/4	10	С	М	SAND	<u> </u>
				30	С	М	FINE SAND	Yl
		5	YR 3/4	5	С	М		
				5	С	PL		
							2	
	centration, D=Depl	letion, RM=	Reduced Matrix,	CS=Cove	red or Coa	ited Sand	d Grains. Loc	eation: PL=Pore Lining, M=Matrix.
-	dicators: (Applica	able to all L			-		Indicators f	or Problematic Hydric Soils ³ :
Histosol (Redox (S5			_	2 cm Muck (A10)
	ipedon (A2)			ed Matrix (S		,		Red Parent Material (TF2)
Black His				Mucky Mi		(except l	WLRA 1) _	Other (Explain in Remarks)
	Sulfide (A4)			Gleyed M				
	Below Dark Surface	ce (A11)		ed Matrix (2	
	rk Surface (A12)			Dark Surfa	` '			tors of hydrophytic vegetation and
	uck Mineral (S1)			ed Dark Su)		and hydrology must be present,
Sandy gle	eyed Matrix (S4)		Redox	Depression	ns (F8)		un	less disturbed or problematic.
estrictive La	yer (if present):							
ype:								
epth (inches):	:					Ну	dric Soil Pres	ent? Yes X No
DROLOGY								
	ology Indicators:							
Primary Indicat	tors (any one indica	ator is suffic	ient)					Secondary Indicators (2 or more required
Surface V	Vater (A1)		Water-	Stained Le	eaves (B9)	(except		Water-Stained Leaves (B9) (MLRA 1, 2
High Wat	er Table (A2)		MLF	RA 1, 2, 4A	and 4B)		_	4A and 4B)
Saturation	n (A3)			ust (B11)				
Saturation	II (A3)		Salt Cr		ates (B13)			Drainage Patterns (B10)
Water Ma				c Invertebr)		Drainage Patterns (B10) Dry-Season Water Table (C2)
Water Ma			Aquati	c Invertebr jen Sulfide			_	Dry-Season Water Table (C2)
Water Ma	arks (B1) t Deposits (B2)		Aquation Hydrog	jen Sulfide	Odor (C1)	- Roots (C3)	Dry-Season Water Table (C2)
Water Ma Sediment Drift Depo	arks (B1) t Deposits (B2)		Aquation Hydrog X Oxidize	jen Sulfide	Odor (C1 heres alor) ng Living	Roots (C3)	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Water Ma Sediment Drift Depo	arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)		Aquation Hydrogo X Oxidized Preser	gen Sulfide ed Rhizosp ace of Red	Odor (C1 oheres alor uced Iron () ng Living (C4)	_	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
Water Ma Sediment Drift Depo Algal Mat Iron Depo	arks (B1) t Deposits (B2) osits (B3) or Crust (B4) osits (B5)		Aquati Hydrog X Oxidize Preser Recen	gen Sulfide ed Rhizosp ace of Red t Iron Redu	Odor (C1 oheres alor uced Iron (uction in Pl) ng Living (C4) lowed So	ils (C6)	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Goil Cracks (B6)	lmagery (B	Aquation Hydrogon X Oxidized Preser Recen Stunte	gen Sulfide ed Rhizosp ace of Red t Iron Redu d or Stress	Odor (C1 oheres alor uced Iron (uction in Pl sed Plants) ng Living (C4) lowed So (D1) (LR	ils (C6)	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)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) n Visible on Aerial		Aquati Hydrog X Oxidize Preser Recen Stunte Other	gen Sulfide ed Rhizosp ace of Red t Iron Redu	Odor (C1 oheres alor uced Iron (uction in Pl sed Plants) ng Living (C4) lowed So (D1) (LR	ils (C6)	Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S X Inundation Sparsely Field Observa Surface Water Water table Pre Saturation Pres (includes capilla	arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Goil Cracks (B6) n Visible on Aerial Vegetated Concav attions: Present? Yes esent? Yes lary fringe)	e Surface (Aquation	gen Sulfide ed Rhizosp ice of Red t Iron Redu d or Stress Explain in h (inches) h (inches)	Odor (C1 oheres alor uced Iron (uction in Pl sed Plants Remarks)) ng Living (C4) lowed So (D1) (LR	wetland Hyd	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:	Plas Newydd Fai	m- Lancaster Lake S	Stud Area	City/County	: Clark Cour	nty			Sam	npling Date:	8/6/2014
Applicant/Owner:	Plas Newydd Fai	m, LLC					State:	WA	San	npling Point:	38
Investigator(s):	B. Haddaway, T.	Stout		Sectio	n, Township	, Range:	S12, T4	1N, R1W	_		
Landform (hillslope	e, terrace, etc.):	Floodplain		Local re	elief (concav	e, convex	, none):	none		Slope	e (%): <u>0-1%</u>
Subregion (LRR):	Northwest Forest	s and Coast (LRR A) Lat:	45.850967°	•		Long:	122.77460)6°		Datum: WGS 84
Soil Map Unit Nam	ne: Olympia v	very stony clay loam					NWI Cla	ssification:	none		
Are climatic / hydro	ologic conditions o	n the site typical for t	his time of y	/ear?	Yes 2	X	No		(If no,	explain in Re	marks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	ormal Ci	ircumstanc	es" Pre	sent? Yes	X No
Are Vegetation		, or Hydrology								n Remarks.)	
SUMMARY OF	FINDINGS - A	Attach site map s	showing	sampling	point loca	ations, t	ransec	ts, impo	rtant f	eatures, e	tc.
Hydrophytic Veget	ation Present?	YesNo	X								
Hydric Soil Presen		Yes No			ampled Are	а	Yes		No X		
Wetland Hydrology			X	within	a Wetland?		-		_		
Remarks: .											
VEGETATION											
Trac Stratum (III	a a ciantifia nama		Absolute % Cover	Dominant Species?	Indicator Status?			t workshe			
Tree Stratum (Us 1. Pseudotsuga i		5.)	20	<u></u>	FACU			ACW, or F		2	(A)
· .			20		FACU	Total Ni	ımher of	Dominant			(A)
3.	ana				17.00			All Strata:	_	8	(B)
4				-				nant Speci			
		Total Cover:	40			That Are	OBL, F	ACW, or F	AC:	25%	(A/B)
Chruh Ctrotum						Drovolo	naa Inda	ex Worksh	2011		
Shrub Stratum 1. Symphoricarpo	os albus		30	V	FACU		al % Cov		eet.	Multiply b	v.
Oemleria cera			10		FACU	OBL spe		vei oi.		0	<u>y.</u>
Corylus cornui			10		FACU	•	_				
4.				·		FAC spe	-			0	
5.						•	-				
		Total Cover:	50			UPL spe	_		x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Alopecurus pra	atensis		30	Υ	FAC		_	lex = B/A =		#DIV/0!	
2. Polystichum m	nunitum		2	-	FACU						
3. Rubus ursinus	1		20	Υ	FACU	Hydrop	hytic Ve	getation Ir	ndicator	s:	
4. Phalaris arund	linacea		10		FACW		1 - Rap	id Test for	Hydropl	nytic Vegetat	ion
5. Poa trivialis			20	Y	FAC			ninance Te			
6						#####		alence Inc			
7								_		ion1 (Provide	
										eparate shee	∍t)
								land Non-\			
							Problen	natic Hydro	ophytic \	egetation ¹ (l	=xplain)
11		Total Cover:									
Moody Vino S	trotum	Total Cover.	- 62			1,		d	al a 41 a	al la cala a la acce	
Woody Vine S 1.	<u>tratum</u>							aric soii an ss disturbe		d hydrology blematic.	must
2.									р		
		Total Cover:	0	-	-	Hydrop Vegetat					
% Ba	re Ground in Herb			otic Crust	0	Present			Yes	No	Х
Remarks:											

Color (moist)	41-	scription: (Describe		D-							
SANDY LOAM SANDY LOAM SANDY LOAM	epth	Matrix					. 2	.		D	
Fype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Pydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) 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) Seady Muck Mineral (S1) Wetland Hydrology must be present. Sandy Muck Mineral (S1) Redox Depressions (F8) unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Present? Yes No X Depth (Inches): Jank Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 4A and 4B) A A A A A A A A A A A A A A A A A A A				Color (moist)	<u>%</u>	Type	Loc			Remarks	
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosot (A1) Sandy Redox (S5) Jean Muck (A10) Histosot (A2) Stripped 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) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Sendy Muck Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. Sandy gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. strictive Layer (if present): yee: Shovel refusal-cobbles epth (inches): Surface Water (A1) Water Table (A2) Mura 1, 2, 4A and 4B) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Aquatic Invertebrates (B13) Dirt Deposits (B3) Presence of Reduced Iron (C4) Sald Crust (B4) Presence of Reduced Iron (C4) Sald Sald Tost (B11) Dirth Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Sald Tost (B15) Recent Iron Reduction in Plowed Solis (C6) FAC-Neutral Test (D5) Sparlace Soli Cracks (B6) Surface Soli Cracks (B6) Surface Soli Cracks (B6) Surface Soli Cracks (B6) Iron Deposits (B3) Presence of Reduced Iron (C4) Sparlace Water (A3) Raised Ant Mounds (D6) (LRR A) Iron Deposits (B3) Recent Iron Reduction in Plowed Solis (C6) FAC-Neutral Test (D5) Sparlace Soli Cracks (B6) Iron Deposits (B3) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Wetland Hydrology Present? Yes No X Depth (inches): Urace Water 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? 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 De	-4	10 YR 3/2	100	_				SANDY LO	JAM		
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Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): Vater table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	DROLOG Wetland F Trimary In Surfa High Satur Wate Sedir Drift Algal	And the state of t		icient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	and 4B) rates (B13) Properties (B13) Pro) (except))) ng Living (C4)	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Patterr Dry-Season Water Saturation Visible Geomorphic Post	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial Ir sition (D2)	re required MLRA 1, 2
Vater table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	DROLOG Wetland F rimary In Satur Wate Sedir Algal Iron I Surfa	And the second state of th	cator is suff	icient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Redu Iron Redu or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visibl Geomorphic Pos Shallow Aquitaro FAC-Neutral Tes Raised Ant Mou	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LR	mulant required MLRA 1, 2
Furface Water Present? Yes No X Depth (inches): Water table Present? Yes No X Depth (inches): Waturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	DROLOG Vetland Frimary In Surfa High Satur Wate Sedir Drift Algal Iron I Surfa	hes): Address (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) Paration (A3) Per Marks (B1) Penent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) Address (B6) Address (B6) Address (B6) Address (B6)	cator is suff	icient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted 37) Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Redu Iron Redu or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visibl Geomorphic Pos Shallow Aquitaro FAC-Neutral Tes Raised Ant Mou	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LR	mulant required MLRA 1, 2
Vater table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa Inunc	And the series of the series o	cator is suff	icient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted 37) Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Redu Iron Redu or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visibl Geomorphic Pos Shallow Aquitaro FAC-Neutral Tes Raised Ant Mou	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LR	mulant required MLRA 1, 2
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X	DROLOG Wetland F Primary In Satur Wate Sedir Algal Iron I Surfa Algal Iron I Surfa Surfa	Andrew Court (B4) Deposits (B3) Mat or Crust (B4) Deposits (B5) Mat or Version (B5) Mat or Version (B6) Matter (B6) Matter (B7) Matter (B8	cator is suff Il Imagery (E	icient) Water-S MLR Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted 37) Other (B	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (C1 oheres alo uced Iron uction in P sed Plants Remarks)) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visibl Geomorphic Pos Shallow Aquitaro FAC-Neutral Tes Raised Ant Mou	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LR	mulant required MLRA 1, 2
traduction and the marketine mark	DROLOG Wetland F Primary In Satur Wate Sedir Algal Iron I Surfa Inunc Spars	dicators (any one indicators dicators (any one indicators) distribution (any one indicators (any one indicators)) distribution (any one indicators (any one indicators)) distribution (any one indicators) distribution (any	al Imagery (Enve Surface	icient) Water-S MLR Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted 37) (B8) No X Depth	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red Iron Red or Stress Explain in	and 4B) rates (B13 rates (C1 oheres alo uced Iron uction in P sed Plants Remarks)) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3)	Secondary Indica Water-Stained L 4A and 4B) Drainage Pattern Dry-Season Wat Saturation Visibl Geomorphic Pos Shallow Aquitaro FAC-Neutral Tes Raised Ant Mou	tors (2 or mo eaves (B9) (ns (B10) ter Table (C2 le on Aerial In sition (D2) d (D3) st (D5) nds (D6) (LR	re required MLRA 1, 2 2) magery (CS
ncludes capillary fringe) scribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa Inunc Spars Geld Obs Gurface W Vater tabl	And the service of th	al Imagery (Enve Surface	icient) Water-S MLR Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted 37) (B8) No X Depth No X Depth	A 1, 2, 4A Just (B11) Invertebren Sulfide d Rhizospece of Redultron Redultron Stress Explain in n (inches) n (inches)	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks)) (except)) ng Living (C4) lowed So (D1) (LR	Roots (C3) ills (C6)	Secondary Indica Water-Stained L 4A and 4B) Drainage Patterr Dry-Season Water Saturation Visibl Geomorphic Post Shallow Aquitard FAC-Neutral Test Raised Ant Mout Frost-Heave Hut	tors (2 or mo leaves (B9) (leaves (B9) (leaves (B10) ter Table (C2) le on Aerial Ir sition (D2) d (D3) st (D5) nds (D6) (LR mmocks (D7	me required MLRA 1, 2 magery (CS

Project/Site: Plas Newydd Fa	rm- Lancaster Lake	Stud Area	City/County:	: Clark Cou	nty	Sampling D	ate: 8/6/2
Applicant/Owner: Plas Newydd Fa	ırm, LLC				State: WA	_ Sampling P	oint:
Investigator(s): B. Haddaway, T	.Stout		Section	n, Township	, Range: S12, T4N, R1W		
Landform (hillslope, terrace, etc.):	Floodplain		Local re	elief (concav	re, convex, none): none		Slope (%): 0-1%
Subregion (LRR): Northwest Fores	sts and Coast (LRR A	A) Lat:	45.850967°		Long: 122.77460	06°	Datum: WGS 8
Soil Map Unit Name: water					NWI Classification:	none	
Are climatic / hydrologic conditions o	on the site typical for	this time of v	/ear?	Yes	X No	(If no, explain	in Remarks)
	, or Hydrology			-			
	, or Hydrology				(If needed, explain any ar		
SUMMARY OF FINDINGS –							
Hydrophytic Vegetation Present?	Yes X N	0	la tha S	omenio di Avo	_		
Hydric Soil Present?	Yes X N	0		ampled Are a Wetland?	Y SAY	No	
Wetland Hydrology Present?	Yes X N	0		a monana.		_	
Remarks:			1				
VEGETATION							
		Absolute	Dominant		Dominance Test workshe	et:	
Tree Stratum (Use scientific name	s.)	% Cover	Species?	Status?	Number of Dominant Speci That Are OBL, FACW, or F	AC:	
1.							1 (A)
2.			-		Total Number of Dominant Species Across All Strata:		
3.					opecies Across Air Strata.		1 (B)
4			-		Percent of Dominant Speci		
	Total Cover	: 0			That Are OBL, FACW, or F	AC: <u>10</u>	00% (A/B)
Shrub Stratum					Prevalence Index Worksh		
					Total % Cover of:		iply by:
ı 2.			-		OBL species		0
3.					FACW species		0
4.					FAC species		0
5.			-		FACU species		0
	Total Cover	: 0	-		UPL species		0
Herb Stratum					Column Totals: 0		0 (B)
1. Phalaris arundinacea		80	Υ	FACW	Prevalence Index = B/A =	- ' '	``
2.							
3.					Hydrophytic Vegetation Ir	ndicators:	
4.					1 - Rapid Test for	Hydrophytic Ve	getation
5.					X 2 - Dominance Te	st is >50%	
S					##### 3 - Prevalence Inc	dex is ≤3.0 ¹	
7 .					4 - Morphological	Adaptation1 (Pr	rovide supporting
3.					data in Remarks of	or on a separate	sheet)
9					5 - Wetland Non-\	/ascular Plants ¹	I
10.					Problematic Hydro	ophytic Vegetati	on ¹ (Explain)
l1.							
	Total Cover	: 80					
Woody Vine Stratum					¹ Indicators of hydric soil and be present, unless disturbe		
					Hydrophytic		
					пушторнушс		
2	Total Cover				Vegetation		
		Cover of Bi		0		Yes X	No

Depth								Sampling Point:	39
(inches)	iption: (Describe t	o the de	oth needed t	o documen	t the indic	ator or co	nfirm the absence	e of indicators.)	
(inches)	Matrix			Redox Fe	eatures			,	
	Color (moist)	%	Color (mo			Loc ²	- Texture	Remar	·ks
0-3 10	0 YR 4/2	85	10 YR 4/4	<u> </u>	10 C		SILT LOAM		
	5/N	100					SILT LOAM		
							_		
¹ Type: C=Con	ncentration, D=Depl	etion, RM	I=Reduced M	atrix, CS=C	overed or (Coated Sar	nd Grains. ² Locati	on: PL=Pore Lining, M=Ma	trix.
•	ndicators: (Applica	able to al	•				Indicators for	Problematic Hydric Soils	3.
Histosol (` '			andy Redox				2 cm Muck (A10)	
	pipedon (A2)			stripped Matr	, ,			Red Parent Material (TF2	,
Black His				oamy Mucky			t MLRA 1)	Other (Explain in Remark	s)
	n Sulfide (A4)			oamy Gleye		-2)			
	Below Dark Surfac	e (A11)		epleted Mat			3, ,		
	ark Surface (A12)			Redox Dark S	•	•		s of hydrophytic vegetation	
	luck Mineral (S1)			epleted Dar		,		d hydrology must be presen	t,
	eyed Matrix (S4)			Redox Depre	SSIUIIS (FO)	unies	s disturbed or problematic.	
	ayer (if present):								
Type:	١.						ludria Cail Dracan	42 Van V	No
Depth (inches) Remarks:)						lydric Soil Presen	t? Yes <u>X</u>	No
HYDROLOGY									
	rology Indicators:								
welland Hydr	ators (any one indica	ator is suf	ficient)					Secondary Indicators (2 or	more required)
_	147 ((4.4)			Vater-Staine	d Leaves (Water-Stained Leaves (B	
_	Water (A1)		v			B9) (excep	ot	Water-Stailled Leaves (D	9) (MLRA 1, 2 ,
Primary Indicate V	Water (A1) ter Table (A2)		<u> </u>	MLRA 1, 2				4A and 4B)	9) (MLRA 1, 2,
Primary Indicate V	ter Table (A2)		<u></u>	MLRA 1, 2 Salt Crust (B1	, 4A and 4		ot		9) (MLRA 1, 2,
Primary Indicate Surface V High Wat Saturation	ter Table (A2)		s		, 4A and 4 l1)	В)	ot	4A and 4B)	
Primary Indicat Surface V High Wat Saturation Water Ma	ter Table (A2) on (A3)		S	alt Crust (B1	, 4A and 4 l1) tebrates (E	B)	ot	4A and 4B) Drainage Patterns (B10)	(C2)
Primary Indicat Surface V High Wat Saturatio Water Ma	ter Table (A2) on (A3) arks (B1)		s a H	salt Crust (B1 quatic Invert lydrogen Sul	, 4A and 4 (1) tebrates (E fide Odor	B) 13) (C1)	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table	(C2) al Imagery (C9)
Primary Indicat Surface V High Wat Saturation Water Ma Sediment Drift Depo	ter Table (A2) on (A3) arks (B1) at Deposits (B2)		S A H	salt Crust (B1 quatic Invert lydrogen Sul	, 4A and 4 (11) tebrates (E fide Odor cospheres	B) 13) (C1) along Livin		4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric	(C2) al Imagery (C9)
Primary Indicat Surface V High Wat Saturation Water Ma Sediment Drift Depo	ter Table (A2) on (A3) arks (B1) ot Deposits (B2) oosits (B3)		S A H C	alt Crust (B1 quatic Invert lydrogen Sul oxidized Rhiz	, 4A and 4 (11) tebrates (E fide Odor cospheres Reduced Ir	B) (C1) (along Livin on (C4)	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2)	(C2) al Imagery (C9)
Primary Indicat Surface V High Wat Saturatio Water Ma Sediment Drift Depo	ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) t or Crust (B4)		S A H C P	calt Crust (B1 Aquatic Invertilydrogen Sul Dxidized Rhiz Presence of F	, 4A and 4 (11) tebrates (E fide Odor cospheres Reduced In	B) 13) (C1) along Livin on (C4) n Plowed S	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2) Shallow Aquitard (D3)	(C2) al Imagery (C9))
Primary Indicat Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S	ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5)	Imagery (S A A A A A A A A A A A A A A A A A A A	calt Crust (B1 quatic Inverting Inverting Sulforting Su	, 4A and 4 (11) tebrates (E fide Odor cospheres Reduced Ir Reduction i	B) 13) (C1) along Livin on (C4) n Plowed S nts (D1) (L	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5)	(C2) al Imagery (C9))
Primary Indicate Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S X Inundatio	ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6)		S	ealt Crust (B1 Aquatic Inverl Iydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Str	, 4A and 4 (11) tebrates (E fide Odor cospheres Reduced Ir Reduction i	B) 13) (C1) along Livin on (C4) n Plowed S nts (D1) (L	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9))
Primary Indicat Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S X Inundatio	ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial		S	calt Crust (B1 cquatic Inverting Inv	, 4A and 4 in) tebrates (E fide Odor cospheres Reduced In Reduction in ressed Pla in Reman	B) 13) (C1) along Livin on (C4) n Plowed S nts (D1) (L	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9))
Primary Indicat Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S X Inundatio Sparsely Field Observa Surface Water	ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial in Vegetated Concaverations: r Present? Yes	e Surface	S A A A A A A A A A A A A A A A A A A A	calt Crust (B1 cquatic Inverting Inv	, 4A and 4 11) tebrates (E fide Odor cospheres Reduced Ir Reduction in ressed Pla in in Remain tes):	B) 13) (C1) along Livin on (C4) n Plowed S nts (D1) (L	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeric Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6)	(C2) al Imagery (C9))
Primary Indicat Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S X Inundatio Sparsely	ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial (Vegetated Concave ations: r Present? Yes resent? Yes	e Surface	S A A A A A A A A A A A A A A A A A A A	calt Crust (B1 cquatic Inverting Inv	, 4A and 4 11) tebrates (E fide Odor cospheres Reduced Ir Reduction in ressed Pla n in Remai	B) 13) (C1) along Livin on (C4) n Plowed S nts (D1) (L	g Roots (C3)	4A and 4B) Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Aeri Geomorphic Position (D2 Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) Frost-Heave Hummocks ((C2) al Imagery (C9)) (LRR A) (D7)

Remarks:

Gee Creek - South Backwater Data Forms

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	8/31/2015
Applicant/Owner:	Plas Newydd Farm						State:	WA	Sampling	Point:	1
Investigator(s):	T. Stout, B. Haddaw	ray		Section	n, Township	, Range:	S12, T4	IN, R1W			
Landform (hillslope	e, terrace, etc.):	Hillslope		_ Local re	elief (concav	e, convex	k, none):	concave		Slope (%):	5-6%
Subregion (LRR):	Northwest Forests a	nd Coast (LRR A	<u>)</u> Lat:	45.840454°			Long:	122.75428	5°	Datum:	WGS 84
Soil Map Unit Nam	e: water						NWI Cla	ssification:	none		
•	ologic conditions on the	* *	-		Yes 2		_		- '	in in Remarks	
	, Soil			significantly						Yes X	_No
Are Vegetation SUMMARY OF	, Soil, FINDINGS - Atta			naturally pro				-	rtant featu		
Hydrophytic Vegeta	ation Present?	Yes X No		la tha O		_					
Hydric Soil Present	t?	Yes X No	<u> </u>		ampled Area a Wetland?		Yes	Х	No		
Wetland Hydrology	/ Present?	Yes X No	<u> </u>								
Remarks:											
VEGETATION											
Tree Stratum (Us	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?	Number	r of Domi	t workshe	es		
Fraxinus latifol	ia .		20	Υ	FACW	That Are	e OBL, F	ACW, or F	AC:	3	(A)
2.								Dominant	'		=
3						Species	Across A	All Strata:		3	(B)
4.						Percent	of Domir	nant Specie	es		
		Total Cover	20			That Are	e OBL, F	ACW, or F	AC:	100%	_(A/B)
Shrub Stratum 1. 2. 3. 4. 5. Herb Stratum 1. Phalaris arund 2. Persicaria lapa		Total Cover			FACW	To OBL spi FACW s FAC spi FACU s UPL spi Column Preva	tal % Covecies species species secies Totals:	0 lex = B/A =	X1 =	ultiply by: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- - - - - _(B)
3.						Hydrop	•	getation In			
4 5.								id Test for ninance Te	Hydrophytic \	Vegetation	
									st is >50 / ₀ lex is ≤3.0 ¹		
7										(Provide supp	ortina
•								_	or on a separa		og
									/ascular Plan		
							Problen	natic Hydro	phytic Veget	tation¹ (Explair	n)
11.											
		Total Cover	100								
Woody Vine St	<u>tratum</u>								d wetland hyd d or problema	drology must atic.	
2						Hydrop	hytic				
		Total Cover				Vegetat	tion				
% Baı	re Ground in Herb Str	atum <u>0</u> %	Cover of Bi	otic Crust	0	Present	t?		Yes X	No	
Remarks:											

Depth	Matrix			1750	lox Featu	ires						
inches)	Color (moist)	%	Color (r		%	Type ¹	Loc	 Textur	e		Remarks	
-5	10 YR 3/2	90	7.5 YR 4/		10	С	PL	SCL				
-10	10 YR 3/2	87	7.5 YR 4/		10	С	PL	SCL				
			7.5 YR 5/	6	3	С	М					
								_				-
	Concentration, D=Dep						ated Sa					
-	Indicators: (Applic	able to a	II LRRs, ur			-		Indicator		oblematic Hy		
Histos				-	Redox (S5					2 cm Muck (A1		
	Epipedon (A2)				Matrix (S			(MI DA 4)		Red Parent Ma		
	Histic (A3)			-	-		-	t MLRA 1)	— '	Other (Explain	in Remarks)	
	gen Sulfide (A4)	oo (A11)			ыеуесткі d Matrix (atrix (F2))					
	ed Below Dark Surfac Dark Surface (A12)	CE (A11)	X	•	a Matrix (Dark Surfa	. ,		3 _{Ind} i	cators a	of hydrophytic	vegetation and	1
	Muck Mineral (S1)					urface (F7	7)			nydrology mus	=	ı
	gleyed Matrix (S4)				epressio		')			disturbed or pi		
	Layer (if present):			TCGOX E	Сргсоого	7113 (1 0)			uriicaa	aistarbed or pr	TODICITIALIC.	
3311101110	Layer (ii present).											
01.16	OVEL DEFLICAL DO	2014										
epth (inche	OVEL REFUSAL - RO es):	OCK	10					Hydric Soil Pr	esent?		Yes X	No
epth (inche		OCK	10					Hydric Soil Pr	esent?		<u>Yes X</u>	No
epth (inchenarks:	es):		10					Hydric Soil Pr	esent?		Yes X	No
epth (inche narks: DROLOGY etland Hy	es): /							Hydric Soil Pr				
PROLOGY etland Hy	rdrology Indicators: cators (any one indic			Water-S	itained Le	eaves (B9			Se	econdary Indic	cators (2 or mo	re require
PROLOGY etland Hy imary Indi Surfac	rdrology Indicators: cators (any one indicate Water (A1)					eaves (B9)) (exce		Se	econdary Indic	cators (2 or mo Leaves (B9) (re require
PROLOGY etland Hy imary Indi Surfac High W	rdrology Indicators: cators (any one indicators (A1) Vater Table (A2)			MLRA	A 1, 2, 4A	eaves (B9 \ and 4B))) (exce		<u>S</u>	econdary Indic Water-Stained 4A and 4B)	cators (2 or mo Leaves (B9) (I	re require
PROLOGY etland Hy imary Indi Surfac High W Satura	rdrology Indicators: cators (any one indicators (A1) Vater Table (A2) tion (A3)			MLRA Salt Cru	1, 2, 4A st (B11)	and 4B)	e) (exce			econdary Indic Vater-Stained 4A and 4B) Orainage Patte	cators (2 or mo Leaves (B9) (I) erns (B10)	re require
PROLOGY etland Hy imary Indi Surfac High V Satura Water	rdrology Indicators: cators (any one indicators (A1) Vater Table (A2)			MLRA Salt Cru Aquatic	1, 2, 4A st (B11) Invertebr		9) (exce		S6	econdary Indic Vater-Stained 4A and 4B) Drainage Patte Dry-Season W	cators (2 or mo Leaves (B9) (I	re require MLRA 1, 2
PROLOGY etland Hy imary Indi Surfac High V Satura Water Sedim	rdrology Indicators: cators (any one indicaters) e Water (A1) Vater Table (A2) tion (A3) Marks (B1)			MLRA Salt Cru Aquatic Hydroge	1, 2, 4A st (B11) Invertebr en Sulfide	and 4B) rates (B13	9) (exce		Se	econdary Indic Vater-Stained 4A and 4B) Drainage Patte Dry-Season W	cators (2 or mo Leaves (B9) (l) erns (B10) /ater Table (C2 ble on Aerial Ir	re require MLRA 1, 2
PROLOGY etland Hy imary Indi	rdrology Indicators: cators (any one indicators) e Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)			MLRA Salt Cru Aquatic Hydroge Oxidized	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizosp	and 4B) rates (B13	(exce	pt		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In	re require MLRA 1, 2
PROLOGY Petland Hy Imary Indi Surfac High W Satura Water Sedim Drift D Algal N	rdrology Indicators: cators (any one indicators (any one indicators) water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)			MLRA Salt Cru Aquatic Hydroge Oxidized Presence	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospee of Red	and 4B) rates (B13 rates (Cooperes alcoursed Iron	B) (exce	pt	Se	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3)	re require
PROLOGY Petland Hy Emary Indi Surfac High W Satura Water Sedime Drift D Algal M	rdrology Indicators: cators (any one indicators (any one indicators) Water Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4)			MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospee of Redultron Redu	and 4B) rates (B13 rates (Cooperes alcoursed Iron	3) (exce	pt ing Roots (C3) Soils (C6)		econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3)	re require MLRA 1, 2) nagery (C
PROLOGY etland Hy imary Indi Surfac High V Satura Water Sedim Drift D Algal N Iron De	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)	ator is su	fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospe e of Reduter or Stress	and 4B) rates (B13 rates (Condition of the condition of t	B) (excel) 1) 1) 1) png Livi (C4) Plowed s (D1) (i	pt ing Roots (C3) Soils (C6)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3) fest (D5)	re require MLRA 1, : nagery (C
PROLOGY Petland Hyrimary Indi Surfac High W Satura Water Sedime Drift D Algal N Iron De Surfac Inunda	rdrology Indicators: cators (any one indicators (any one indicators (any one indicators) Water Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6)	ator is su	fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospe e of Reduter or Stress	ates (B13 e Odor (Control of the Control (excel) 1) 1) 1) png Livi (C4) Plowed s (D1) (i	pt ing Roots (C3) Soils (C6)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial Ir osition (D2) ard (D3) fest (D5) punds (D6) (LR	re require MLRA 1, 2) magery (C	
PROLOGY Petland Hy rimary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surfac Inunda Sparse	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) ation Visible on Aerial ely Vegetated Concave	ator is su	fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presenct Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospe de of Redi fron Redu or Stress	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F rated Plants Remarks	B) (excel) 1) 1) 1) png Livi (C4) Plowed s (D1) (i	pt ing Roots (C3) Soils (C6)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial Ir osition (D2) ard (D3) fest (D5) punds (D6) (LR	re require MLRA 1, 2) magery (C
PROLOGY Petland Hy rimary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surfac Inunda Sparse ield Obser urface Wa	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) ation Visible on Aerial ely Vegetated Concavervations: ter Present? Yes	ator is su	(B7)	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospee of Reduron Redu or Stress explain in (inches)	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) (is)	pt ing Roots (C3) Soils (C6)		econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial Ir osition (D2) ard (D3) fest (D5) punds (D6) (LR	re required MLRA 1, 2) magery (C
PROLOGY Petland Hy rimary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surfac Inunda Sparse ield Obser urface Wa /ater table	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) ation Visible on Aerial ely Vegetated Concavervations: ter Present? Yes Present?	Imagery re Surface	(B7) (B8) No	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebre en Sulfide d Rhizospe e of Rede fron Redu or Stress explain in (inches) (inches)	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	B) (excel) 1) 1) 1) png Livi (C4) Plowed s (D1) (i	pt ng Roots (C3) Soils (C6) LRR A)	Se	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3) fest (D5) bunds (D6) (LR	re required MLRA 1, 2 nagery (C
DROLOGY Vetland Hy rimary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surfac Inunda Sparse ield Obser urface Wa Vater table aturation F	rdrology Indicators: cators (any one indicate Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations: ter Present? Yes Present?	Imagery re Surface	(B7)	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebren Sulfide d Rhizospee of Reduron Redu or Stress explain in (inches)	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) ((5)	pt ng Roots (C3) Soils (C6) LRR A)	Se	econdary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial Ir osition (D2) ard (D3) fest (D5) punds (D6) (LR	re required MLRA 1, 2) magery (C
DROLOGY Vetland Hy rimary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surface Inunda Sparse ield Obser surface Wa Vater table saturation F ncludes ca	rdrology Indicators: cators (any one indicate Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations: ter Present? Present? Yes Present? Yes	Imagery re Surface	(B7) (B8) No X	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebre en Sulfide d Rhizospe e of Reda fron Reda or Stress explain in (inches) (inches)	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) ((5)	pt ng Roots (C3) Soils (C6) LRR A) Wetland H	S6	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3) fest (D5) bunds (D6) (LR	re required MLRA 1, 2 nagery (C:
DROLOGY Vetland Hy Primary Indi Surfac High W Satura Water Sedim Drift D Algal M Iron De Surface Inunda Sparse Gurface Wa Vater table Saturation F ncludes ca	rdrology Indicators: cators (any one indicate Water (A1) Vater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) Mat or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Aerial ely Vegetated Concavervations: ter Present? Present? Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes Present? Yes	Imagery re Surface	(B7) (B8) No X	MLRA Salt Cru Aquatic Hydroge Oxidized Presenc Recent I Stunted Other (E	A 1, 2, 4A st (B11) Invertebre en Sulfide d Rhizospe e of Reda fron Reda or Stress explain in (inches) (inches)	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	(C4) Plowed s (D1) ((5)	pt ng Roots (C3) Soils (C6) LRR A) Wetland H	S6	econdary Indic Water-Stained 4A and 4B) Orainage Patte Ory-Season W Saturation Visi Geomorphic Po Shallow Aquita FAC-Neutral T Raised Ant Mo Frost-Heave H	cators (2 or mo Leaves (B9) (I) erns (B10) /ater Table (C2 ible on Aerial In osition (D2) ard (D3) fest (D5) bunds (D6) (LR	re required MLRA 1, 2 nagery (C

Project/Site:	Plas Newydd Farm			City/County	Clark Cou	nty		Sampling I	Date:	8/31/2015
Applicant/Owner:	Plas Newydd Farm					-	State: WA		Point:	
Investigator(s):	T. Stout, B. Hadda	way		Sectio	n, Township	, Range:	S12, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Hillslope		_		-	, none): concave		Slope (%):	3-5%
Subregion (LRR):	Northwest Forests	and Coast (LRR A)) Lat:	_	`				_	: WGS 84
Soil Map Unit Nam		y stony clay loam					NWI Classification		_	
Are climatic / hydro	ologic conditions on t	· · · · · ·	his time of v	/ear?	Yes			(If no, explain	n in Remarks	s)
Are Vegetation	, Soil	• •			_		Normal Circumstan			
Are Vegetation	, Soil						eded, explain any a			
	FINDINGS - At	_								
Hydrophytic Veget	ation Present?	Yes No	X	1. (1. 0						
Hydric Soil Presen	t?	Yes No	X		ampled Are a Wetland?		Yes	No X		
Wetland Hydrology	y Present?	Yes No	X	Within .	u wenana.					
Remarks:	•									
VEGETATION			About	Paris		Domino	ance Test worksh			
Tree Stratum (U	se scientific names.)		Absolute % Cover	Dominant Species?	Indicator Status?		of Dominant Spe			
Quercus garry	,		65	Y	FACU	That Ar	e OBL, FACW, or	FAC:	0	(A)
Fraxinus latifo			10		FACW	Total N	umber of Dominan	t		_(' ')
3.							Across All Strata:		3	(B)
4.						Percent	of Dominant Spec	eies		
		Total Cover:	75				e OBL, FACW, or		0%	_(A/B)
Shrub Stratum						Prevale	ence Index Works	heet:		
Rubus armeni	acus		40	Υ	FACU		tal % Cover of:		Itiply by:	
2. Crataegus dou			5	-	FAC	OBL sp		x1 =	0	_
3. Symphoricarpo	-		30	Y	FACU	-	species	_	0	_
4.					· ———	FAC sp	•	x3 =	0	_
5.					· ———		pecies	x4 =	0	_
		Total Cover:	75			UPL sp		x5 =	0	_
Herb Stratum								(A)	0	(B)
1.							lence Index = B/A		V/0!	_` ′
2.				-						_
3.				-	0 0	Hydrop	hytic Vegetation	ndicators:		
4.							1 - Rapid Test fo	r Hydrophytic V	egetation	
5.		_			·		2 - Dominance T	est is >50%		
6.		_				#####	3 - Prevalence In	dex is $\leq 3.0^1$		
7							4 - Morphologica	Adaptation1 (F	Provide supp	orting
8.							data in Remarks	or on a separat	te sheet)	
9.		_					5 - Wetland Non-	Vascular Plants	s ¹	
10.		_					Problematic Hyd	ophytic Vegeta	tion ¹ (Explai	in)
		Total Cover:	0							
Woody Vine S	tratum_						ors of hydric soil a			
1						be pres	ent, unless disturb	eu or problemat	uc.	
2		T-4-1 0				Hydrop				
0/ F	vo Ovorralia III de O	Total Cover:			^	Vegeta		Var	N- V	
	re Ground in Herb S	atum <u>30</u> %	Cover of Bi	otic Crust	0	Presen	tr	Yes	_ No X	
Remarks:										

OIL									5	ampling Poir	и	
Profile Descri	iption: (Describe	e to the dept	th needed	to docun	nent th	e indicat	or or co	onfirm the abs	ence of ir	dicators.)		
Depth	Matrix	·		Redo	x Featu	res				•		
(inches)	Color (moist)	%	Color (mo		%	Type ¹	Loc ²	 Textur	۵		Remarks	
)-1	COIOI (IIIOISE)	100	00101 (1110		70	Турс		Basalt roc			rtemants	
		100						Dasail 100				
							-					
								_				
Type: C=Cor	ncentration, D=De	pletion, RM=	Reduced N	//atrix, CS	=Cove	red or Co	ated Sa	nd Grains. ² L	ocation: F	L=Pore Linii	ng, M=Matrix	
lydric Soil In	dicators: (Appli	cable to all	LRRs, unle	ess other	wise n	oted.)		Indicators	for Prob	lematic Hyd	lric Soils³:	
Histosol	(A1)		s	Sandy Re	dox (S5	5)			2 cr	n Muck (A10))	
Histic Ep	ipedon (A2)		s	Stripped N	/latrix (S	36)			Red	Parent Mat	erial (TF2)	
Black His	stic (A3)		L	oamy Mu	ıcky Miı	neral (F1)	(ехсер	t MLRA 1)	Oth	er (Explain ir	n Remarks)	
Hydroger	n Sulfide (A4)		— _L	oamy Gle	eyed Ma	atrix (F2))					
· ·	Below Dark Surfa	ace (A11)		Depleted I	-							
	rk Surface (A12)	,		Redox Da				³ Indi	cators of h	vdrophytic v	egetation and	d
	uck Mineral (S1)					urface (F7	7)			ology must	•	
	eyed Matrix (S4)			Redox De			,		-	urbed or pro	•	
	= :			Redux De	pressio	115 (F0)			uniess dist	urbed or pro	blemanc.	
Restrictive La	ayer (if present):											
·	/EL REFUSAL - F	ROCK										
Depth (inches)):		<u>1</u>					Hydric Soil Pr	esent?	Y	es	No <u>X</u>
DROLOGY												
-	rology Indicators		niont)						Saaa	ndan, Indiaa	toro (2 or mo	ro roquirod
	tors (any one indi	Cator is surin		Notes Cte	مالمممث) (22522				tors (2 or mo	
	Water (A1)		v			eaves (B9	· · ·	ρτ			eaves (B9) (IVILKA 1, 2
	ter Table (A2)		_			and 4B)				A and 4B)	(= (=)	
Saturatio				Salt Crust						nage Patter	, ,	
	arks (B1)			•		ates (B13	•				ter Table (C2	
Sedimen	t Deposits (B2)		+	Hydrogen	Sulfide	Odor (C	1)		Sati	ıration Visib	le on Aerial Ir	magery (C
Drift Dep	osits (B3)			Oxidized F	Rhizosp	heres alc	ng Livir	ng Roots (C3)	Geo	morphic Po	sition (D2)	
Algal Ma	t or Crust (B4)		F	Presence	of Red	uced Iron	(C4)		Sha	llow Aquitare	d (D3)	
Iron Dep	osits (B5)		F	Recent Iro	n Redu	iction in F	Plowed S	Soils (C6)	FAC	-Neutral Te	st (D5)	
Surface S	Soil Cracks (B6)		<u> </u>	Stunted or	r Stress	ed Plants	s (D1) (L	_RR A)	Rais	sed Ant Mou	nds (D6) (LR	RA)
	on Visible on Aeria	al Imagery (B				Remarks		,			mmocks (D7	
	Vegetated Conca						,					,
ield Observa			(20)					ı				
Surface Water		es N	No X	Depth (i	inches):							
Nater table Pr			No X	Depth (i	,							
Saturation Pre	esent? Ye	es N	No X	Depth (i				Wetland H	ydrology	Present?	Yes	No X
includes capil												
scribe Record	ded Data (stream	gauge, monit	toring well,	aerial pho	otos, pr	evious in	spection	s), if available:				
marks:												

Project/Site:	Plas Newydd Farm			City/County:	Clark Cour	nty			Sampling	Date:	8/31/2015
Applicant/Owner:	Plas Newydd Farm							WA	Sampling	Point:	3
Investigator(s):	T. Stout, B. Haddaw	<i>r</i> ay		Section	n, Township	, Range:	S12, T4	4N, R1W			
Landform (hillslope		Hillslope		_	•					Slope (%):	
	Northwest Forests a	ind Coast (LRR A	Lat:	45.840454°					5°	Datum	: WGS 84
Soil Map Unit Nam				0				ssification:	-		- \
	ologic conditions on th				·-		-			in in Remarks	
Are Vegetation Are Vegetation	, Soil , Soil								es Present? Iswers in Rer		_NO
Are vegetation	, 3011	_, or rigarology		naturally pri	obiematic:	(II IIee	ueu, exp	nain any ai	isweis iii Kei	ilaiks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations, 1	ransec	cts, impo	rtant featu	res, etc.	
Hydrophytic Veget	ation Present?	Yes X No	1								
Hydric Soil Presen	it?				ampled Are a Wetland?	а	Yes	Χ	No		
Wetland Hydrology	y Present?	Yes X No		Within	a Wedana.		'-				
Remarks:				<u> </u>							
VEGETATION											
			Absolute	Dominant	Indicator	Domina	nce Tes	t workshe	et:		
Tree Stratum (U	se scientific names.)		% Cover	Species?	Status?	Number	of Domi	nant Speci	es		
1.	,					That Are	OBL, F	ACW, or F	AC:	2	(A)
2.								Dominant			_
3.						Species	Across	All Strata:		2	_(B)
4								nant Specie			
		Total Cover:	0			That Are	e OBL, F	ACW, or F	AC:	100%	_(A/B)
Shrub Stratum						Brovolo	naa Inde	ex Worksh	oot:		
1. Salix lasiandra	.		45	V	FACW		tal % Co			ultiply by:	
2.	<u>, </u>							VCI OI.	-	0	_
3.									x2 =	0	_
4.						FAC spe			x3 =	0	_
5.									x4 =		
		Total Cover:	45			UPL spe	ecies		x5 =	0	<u> </u>
Herb Stratum						Column	Totals:	0	(A)	0	_(B)
1. Phalaris arund	dinacea		55	Υ	FACW	Preva	lence Ind	dex = B/A =	#D	IV/0!	_
2											
3.						Hydrop		getation In			
4.									Hydrophytic \	/egetation	
5						X		ninance Te			
6						#####			exis ≤3.0 ¹	(Danida aira	
7.										(Provide supp	orting
8. 9.									r on a separa /ascular Plan		
40					· 					ation¹ (Explai	in)
11.							1 TODICI	natio riyure	priyac vegea	ation (Explai	11)
' ' '		Total Cover:	55								
Woody Vine S	<u>stratum</u>	. 0.0							d wetland hyd		
2.							· ·		1		
·		Total Cover:	0			Hydrop					
% Ba	re Ground in Herb Str			otic Crust	0	Vegetat Present			Yes X	No	
Remarks:									<u> </u>		

SOIL								Sampling F	oint:	
Profile De	scription: (Desc	ribe to the de	epth needed to	document th	e indicate	or or cor	nfirm the abs	sence of indicators	ş.)	
Depth	Matı	rix		Redox Featu	res					
(inches)	Color (mois	st) %	Color (mois	t) %	Type ¹	Loc ²	- Texture	e	Remarks	
0-2	10 YR 4/2	100					SL			
2-4	10 YR 4/2	80	4/5 BG	20	С	M	SCL			
4-7	4/5 BG	60	5 YR 4/3	40	С	М	SCL			
7-16	4/5 BG	85	5 YR 4/3	15	С	М	SCL			
¹ Type: C=	Concentration, D	=Depletion, RN	M=Reduced Ma	trix, CS=Cove	red or Coa	ated San	d Grains. ² L	ocation: PL=Pore I	_ining, M=Matrix.	
Hydric So	il Indicators: (A	pplicable to a	II LRRs, unles	s otherwise n	oted.)		Indicators	s for Problematic I	Hydric Soils ³ :	
Histo	sol (A1)		Sa	ndy Redox (S5	5)			2 cm Muck (/	A10)	
Histic	Epipedon (A2)		Str	ipped Matrix (S	S6)			Red Parent I	Material (TF2)	
Black	(Histic (A3)		Loa	amy Mucky Mii	neral (F1)	(except	MLRA 1)	Other (Expla	in in Remarks)	
Hydro	ogen Sulfide (A4)		X Loa	amy Gleyed Ma	atrix (F2)					
Deple	eted Below Dark S	Surface (A11)	De	pleted Matrix (F3)					
Thick	Dark Surface (A	12)	Re	dox Dark Surfa	ace (F6)		³ Indi	cators of hydrophyt	ic vegetation and	
Sand	y Muck Mineral (S	S1)	De	pleted Dark Su	ırface (F7	·)	we	etland hydrology mu	ust be present,	
Sand	ly gleyed Matrix (S	64)	Re	dox Depressio	ns (F8)		ι	unless disturbed or	problematic.	
Restrictive	e Layer (if prese	nt):								
Type:										
Depth (incl	hes):					Hy	ydric Soil Pre	esent?	Yes X	No
IYDROLOG										
	lydrology Indica									
	dicators (any one	indicator is su							dicators (2 or more	
	ice Water (A1)			ater-Stained Le			t		ed Leaves (B9) (M	LRA 1, 2,
	Water Table (A2)	1		MLRA 1, 2, 4A	and 4B)			4A and 4		
	ration (A3)			It Crust (B11)	. (5.40			Drainage Pat		
	er Marks (B1)	2)		uatic Invertebr					Water Table (C2)	(00)
	ment Deposits (B2	2)		drogen Sulfide			D4- (OO)		isible on Aerial Ima	agery (C9)
	Deposits (B3)	`		idized Rhizosp			g Roots (C3)		Position (D2)	
	Mat or Crust (B4))		esence of Red		` '	aila (CC)	Shallow Aqui	` ,	
	Deposits (B5))e)		cent Iron Redu				FAC-Neutral		Α\
	ice Soil Cracks (B dation Visible on A			inted or Stress		, , ,	KK A)		Mounds (D6) (LRR	. A)
	sely Vegetated Co	• •		ner (Explain in	Remarks)		FIOSI-Fleave	Hummocks (D7)	
		Jilcave Suriac	е (Во)							
Field Obse Surface W	ater Present?	Yes	No X	Depth (inches):						
Water table		Yes X		Depth (inches):		5				
Saturation		Yes X		Depth (inches)		3	Wetland H	lydrology Present	? Yes <u>X</u>	No
•	capillary fringe)		:4:) if! - -			
rescribe Red	corded Data (stre	am gauge, mo	mitoring well, as	enai priotos, pr	evious ins	spections), ii avaliable:			
Remarks:										

ocal relief (concave 0454° Yes > cantly disturbed? ally problematic?	Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.) Ations, transects, important features, etc.	
Yes > cantly disturbed? ally problematic?	Long: 122.754285° Datum: WGS NWI Classification: none X No (If no, explain in Remarks) Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.) Attions, transects, important features, etc.	
Yes > Yes > Cantly disturbed? Ally problematic?	Long: 122.754285° Datum: WGS NWI Classification: none X No (If no, explain in Remarks) Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.) Ations, transects, important features, etc.	
Yes \(\) cantly disturbed? ally problematic? sling point locathe Sampled Area	NWI Classification: none X No (If no, explain in Remarks) Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.) ations, transects, important features, etc.	8 84
cantly disturbed? ally problematic? ling point loca	No (If no, explain in Remarks) Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.) Attions, transects, important features, etc.	
cantly disturbed? ally problematic? ling point loca	Are "Normal Circumstances" Present? Yes X No (If needed, explain any answers in Remarks.)	
ally problematic? Iling point loca the Sampled Area	(If needed, explain any answers in Remarks.)	
ling point loca	ations, transects, important features, etc.	
the Sampled Area	a	
•	a Yes No X	
•	a Yes No X	
	100 <u>N</u>	
nant Indicator	Dominance Test worksheet:	
ies? Status?	Number of Dominant Species That Are OBL, FACW, or FAC:	
	Consider Assess All Chapter	
	That Are OBL, FACW, or FAC: (A/B)	
FACU	Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species x1 = 0 FACW species x2 = 0 FAC species x3 = 0 FACU species x4 = 0	
	· · · · · · · · · · · · · · · · · · ·	
	Column Totals: 0 (A) 0 (B)	
FACU	Prevalence Index = B/A = #DIV/0!	
NOL		
FAC	Hydrophytic Vegetation Indicators:	
	1 - Rapid Test for Hydrophytic Vegetation	
	·	
	·	
	Problematic Hydrophytic Vegetation (Explain)	
	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	• • •	
ust 0	Present? Yes No X	
	FACU NOL FAC	Status? Number of Dominant Species That Are OBL, FACW, or FAC:

SOIL								Sampling Po	int:	
Profile Descr	ription: (Desci	ribe to the dep	oth needed to do	cument t	he indicato	r or confirm	n the abse	ence of indicators.)		
Depth	Matri	х	R	edox Feat	tures					
(inches)	Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
				-			2			
'Type: C=Co	ncentration, D=	Depletion, RM	=Reduced Matrix	CS=Cov	ered or Coat	ted Sand G	rains. 'Lo	cation: PL=Pore Lir	ing, M=Matrix.	
-		plicable to all	LRRs, unless of	herwise	noted.)	I	ndicators	for Problematic Hy		
Histosol	` '			Redox (S			_	2 cm Muck (A1	•	
Histic Ep	pipedon (A2)			ed Matrix	. ,		_	Red Parent Ma		
	istic (A3)			-	lineral (F1) ((except ML	RA 1) _	Other (Explain	in Remarks)	
	en Sulfide (A4)			-	Matrix (F2)					
	d Below Dark S			ed Matrix	` '		•			
	ark Surface (A1				rface (F6)			ators of hydrophytic	•	
	/luck Mineral (S				Surface (F7)		wet	land hydrology mus	be present,	
Sandy g	leyed Matrix (S	4)	Redox	Depress	ions (F8)		ur	nless disturbed or p	oblematic.	
Restrictive L	ayer (if presen	it):								
Type: SHO	VEL REFUSAL	- ROCK								
Depth (inches	s):		0			Hydri	c Soil Pres	sent?	Yes	No X
YDROLOGY										
	rology Indicat	ors:								
=	ators (any one i		icient)					Secondary Indic	ators (2 or more	e required
	Water (A1)			-Stained L	_eaves (B9)	(except			Leaves (B9) (N	
	ater Table (A2)				A and 4B)	(_	4A and 4B)		, .
Saturation				rust (B11)			-	Drainage Patte		
Water M	larks (B1)				orates (B13)		_		ater Table (C2))
	nt Deposits (B2)			le Odor (C1)		_		ble on Aerial Im	
	posits (B3)			_	spheres alon		ots (C3)	Geomorphic P		0 , .
	at or Crust (B4)				duced Iron (` ′ -	Shallow Aquita		
	posits (B5)				duction in Pla		(C6)	FAC-Neutral T		
	Soil Cracks (Be	3)			ssed Plants (· · · · -		unds (D6) (LRF	R A)
	on Visible on A				n Remarks)	, , ,	, <u> </u>	Frost-Heave H		
	y Vegetated Co		· —		,		_		, ,	
ield Observ	-		. ,							
Surface Wate		Yes	No X Dep	th (inches	s):					
Water table P		Yes		th (inches						,
Saturation Pro (includes capi		Yes	No X Dep	th (inches	3):	— "	etland Hy	drology Present?	Yes	No_ <u>X</u>
		ım gauge, mor	itoring well, aerial	photos, r	orevious insp	pections), if	available:			
		J - 1 J - 1		, , ,						
emarks:										

Project/Site:	Plas Newydd Farm		City/County	: Clark Cour	nty			Sampling	Date:	11/12/2015
Applicant/Owner:	Plas Newydd Farm					State: \	WA	Sampling	Point:	5
Investigator(s):	T. Stout, K. Biafora		Sectio	n, Township	, Range:	S12, T4	N, R1W			
Landform (hillslope	e, terrace, etc.): Hillslope)	Local re	elief (concav	e, convex	, none): <u>c</u>	concave		Slope (%): <u>3-5%</u>
Subregion (LRR):	Northwest Forests and Coast	(LRR A) Lat:	45.840454	0		Long: _	122.754285	0	Datur	m: WGS 84
Soil Map Unit Nam		•					ssification: _	none		
Are climatic / hydro	ologic conditions on the site typ	oical for this time of	year?	Yes	X	No_		(If no, expla	in in Remar	ks)
Are Vegetation	, Soil, or Hyd	rology	significantly	/ disturbed?	Are "N	Iormal Cir	rcumstance	s" Present?	Yes X	No
Are Vegetation	, Soil, or Hyd	rology	naturally pr	oblematic?	(If nee	ded, expl	lain any ans	wers in Rer	narks.)	
SUMMARY OF	FINDINGS - Attach site	e map showing	sampling	point loca	ations, t	ransec	ts, impor	tant featu	res, etc.	
Hydrophytic Veget	ation Present? Yes X	No								
Hydric Soil Presen				ampled Are a Wetland?		Yes >	X	No		
Wetland Hydrology	Present? Yes X	No No	- WILIIII	a wellallu:		_				
Remarks:			-							
VEGETATION										
Tree Stratum (III	se scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?			workshee			
Fraxinus latifole	•	35	Y	FACW			ACW, or FA		3	(A)
2.	iu .		<u> </u>		Total Nu	ımber of I	Dominant			(/ //
3.			-		Species	Across A	All Strata:		4	(B)
4.			-	·	Percent	of Domin	ant Species			`` /
	Tota	al Cover: 35		·			ACW, or FA		75%	(A/B)
Shrub Stratum					Prevale	nce Inde	x Workshe	et:		
1. Symphoricarpo	os albus	10	<u>Y</u>	FACU		al % Cov			ultiply by:	_
2						_	:		0	
3				·		-	:		0	
4.					FAC spe		:		0	_
5	Total				UPL spe	_			0	
Horb Stratum	TOLE	al Cover: 10	_			Totals:		x5 =	0	(D)
Herb Stratum 1. Phalaris arund	linacoa	40	Υ	FACW		_	0 ex = B/A =		IV/0!	(B)
Carex obnupta			Y	OBL	Tieva	ence ma	CX - D/A	#0	14/0:	
3. Galium aparine		2		FACU	Hydrop	hytic Vec	getation Inc	licators:		
4.			<u> </u>	·	,		d Test for H		/egetation	
5.			-	·	X		inance Test		Ü	
6					#####	3 - Prev	alence Inde	x is ≤3.0 ¹		
7				·		4 - Morp	hological A	daptation1 (Provide sup	porting
		<u> </u>				data in F	Remarks or	on a separa	ate sheet)	
9.			_			5 - Wetl	and Non-Va	scular Plan	ts ¹	
10						Problem	natic Hydrop	hytic Veget	ation ¹ (Expl	ain)
11										
	Tota	al Cover: 72	<u>-</u>							
Woody Vine S	<u>tratum</u>						ric soil and			t
1					pe prese	ent, unies	s disturbed	or problema	atiC.	
2					Hydrop					
0/ 5		al Cover: 0	_	^	Vegetat			V V	N I =	
	re Ground in Herb Stratum	10 % Cover of B	ootic Crust	0	Present	: /		Yes X	No	
Remarks:										

SOIL									Sampling Poir	nt:	5
Profile De	escription: (Desc	ribe to the de	pth needed	to document	the indic	ator or o	onfirm	the abser	nce of indicators.)		
Depth	Matr	ix		Redox Fea	tures						
(inches)	Color (moist		Color (m		Туре	¹ Loc	2	Texture		Remarks	
0-3	10 YR 2/2	98	10 YR 3/3		2 C	PL		CL	ALONG LIVI		
3-9	10 YR 3/2	88	7.5 YR 4/6		7 C			CL			
			7.5 YR 4/4		5 C	M					
9-16	10 YR 5/2	85	10 YR 2/1	-	7 C	M	S	CL	ORGANIC M	IATTER COAT	ING PEDS
			7.5 YR 4/6		5 C	M					
			7.5 YR 5/6	;	3 C	М					
į.											
¹ Type: C=	-Concentration, D=	=Depletion, RN	/I=Reduced I	Matrix, CS=Cov	ered or C	Coated S	and Gra	ains. ² Loc	cation: PL=Pore Lini	ng, M=Matrix.	
Hvdric So	il Indicators: (Ap	oplicable to a	II LRRs. unl	ess otherwise	noted.)		In	dicators f	or Problematic Hyd	dric Soils ³ :	
	sol (A1)	•		Sandy Redox (2 cm Muck (A10		
	c Epipedon (A2)			Stripped Matrix					— Red Parent Mat		
	K Histic (A3)			Loamy Mucky N		1) (exce	pt MLR	RA 1)	Other (Explain i	, ,	
	ogen Sulfide (A4)			Loamy Gleyed			•	· –		,	
	eted Below Dark S	Surface (A11)		Depleted Matrix		,					
	k Dark Surface (A1			Redox Dark Su		6)		³ Indica	ators of hydrophytic v	egetation and	
	y Muck Mineral (S			Depleted Dark					and hydrology must	-	
	ly gleyed Matrix (S	*		Redox Depress					less disturbed or pro		
Restrictiv	e Layer (if preser	nt):	<u> </u>								
Type:											
Depth (inc	hes):						Hydric	Soil Pres	sent? Y	es X	No
Remarks:											
HYDROLOG	.v										
	Hydrology Indicat	tors:									
	dicators (any one		fficient)						Secondary Indica	ators (2 or more	e required)
	ace Water (A1)			Water-Stained	Leaves (E	B9) (exc	ept	_	Water-Stained I	•	
	Water Table (A2)			MLRA 1, 2, 4	•	, ,	•		4A and 4B)		, ,
	ration (A3)			Salt Crust (B11		,			Drainage Patter	ns (B10)	
	er Marks (B1)			Aquatic Inverte	brates (B	13)			Dry-Season Wa		
Sedir	ment Deposits (B2	2)		Hydrogen Sulfic	de Odor ((C1)		_	Saturation Visib	le on Aerial Im	agery (C9)
Drift	Deposits (B3)		X	Oxidized Rhizo	spheres a	along Liv	ing Roo	ots (C3) X	Geomorphic Po	sition (D2)	
Algal	Mat or Crust (B4))		Presence of Re	duced Iro	on (C4)		_	Shallow Aquitar	d (D3)	
Iron I	Deposits (B5)			Recent Iron Re	duction ir	n Plowed	Soils (C	C6) X	FAC-Neutral Te	st (D5)	
Surfa	ace Soil Cracks (B	6)	;	Stunted or Stre	ssed Plar	nts (D1)	(LRR A)	.)	Raised Ant Mou	ınds (D6) (LRR	(A)
Inund	dation Visible on A	erial Imagery	(B7)	Other (Explain	n Remar	ks)			Frost-Heave Hu	mmocks (D7)	
Span	sely Vegetated Co	oncave Surface	e (B8)								
	ervations:	.,									
	/ater Present? e Present?	Yes	No X No X	Depth (inches							
Saturation		Yes	No X	Depth (inchest Depth (inchest)			We	etland Hvo	drology Present?	Yes X	No
	capillary fringe)								g,	<u> </u>	
Describe Re	corded Data (strea	am gauge, mo	nitoring well,	aerial photos,	previous	inspection	ns), if a	vailable:			
Remarks:											
. comano.											

Project/Site:	Plas Newydd Farn	1		City/County:	: Clark Cour	nty			Sam	pling Date: _	11/12/2015
Applicant/Owner:	Plas Newydd Farn	1					State:	WA	Sam	pling Point: _	6
Investigator(s):	T. Stout, K. Biafora	a		Section	n, Township	, Range:	S12, T	4N, R1W			
Landform (hillslope	e, terrace, etc.):	Hillslope		_ Local re	elief (concav	e, convex	, none):	concave		Slope	(%): <u>3-5%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.840454°)		Long:	122.75428	5°	Da	atum: WGS 84
Soil Map Unit Nam	e: Olympic ve	ry stony clay loam					NWI Cla	assification:	none		
Are climatic / hydro	ologic conditions on	the site typical for t	his time of	year?	Yes 2	X	No		_(If no, e	explain in Rem	narks)
	, Soil			-	/ disturbed?	Are "N	ormal C	Circumstand	es" Pres	ent? Yes X	(No
Are Vegetation		, or Hydrology		naturally pro				-		n Remarks.)	
SUMMARY OF	FINDINGS - A	tach site map	showing	sampling	point loca	ations, t	ranse	cts, impo	rtant fe	etures, etc	c.
Hydrophytic Vegeta		YesNo		Is the Sa	ampled Are	a					
Hydric Soil Present		YesNo			a Wetland?		Yes		_ No <u>X</u>		
Wetland Hydrology	/ Present?	YesNo	<u>X</u>								
VEGETATION											
Tree Stratum (Us	se scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?			st workshe inant Speci			
Fraxinus latifol		•	25	Y	FACW	That Are	OBL, F	ACW, or F	AC:	1	(A)
2. Quercus garrya			25	Υ	FACU	Total Nu	ımber of	f Dominant			`
Pseudotsuga r			25		FACU	Species	Across	All Strata:		5	(B)
4.						Percent	of Domi	inant Speci	es		
		Total Cover:	75					ACW, or F		20%	(A/B)
Shrub Stratum 1. Symphoricarpo 2. Rubus ursinus 3. 4.			40 15		FACU FACU	OBL spe FACW s	al % Co ecies pecies ecies	ex Worksh over of:	x1 = x2 = x3 =	Multiply by: 0 0 0	<u>:</u>
5						FACU s			_x4 =	0	
Herb Stratum 1 2		Total Cover:	55			UPL spe Column Preval	Totals:	0 dex = B/A =	_x5 = _(A) =	0 0 #DIV/0!	(B)
3. 4. 5.						Hydrop	1 - Rap	egetation Ir oid Test for minance Te	Hydroph	ytic Vegetatio	on
6 7						#####	4 - Mor		Adaptatio	on1 (Provide	
_								tland Non-\		eparate sheet Plants ¹	,
					. ———					egetation ¹ (E:	xplain)
11.									20	0901011011 (2)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		Total Cover:	0								
Woody Vine St	<u>tratum</u>							dric soil and ss disturbe		d hydrology m olematic.	ıust
2.						Hydrop	hytic				
% Baı	re Ground in Herb S	Total Cover: tratum30_%	0 Cover of Bi	otic Crust	0	Vegetat	ion		Yes	No X	〈
Remarks:						1					
1											

SOIL									Sam		
Profile Des	cription: (Desc	cribe to the d	epth need	ed to doc	ument th	e indicate	or or co	onfirm the ab	sence of indi	cators.)	
Depth	Mat	rix		Re	dox Featu	ıres					
(inches)	Color (mois	st) %	Color	(moist)	%	Type ¹	Loc²	Textu	ıre	Remar	ks
0-5	10 YR 2/1	100						SILT LO	AM		
5-16	10 YR 2/1	85	10 YR 4	/1	15	D	М	SILT LO	AM		
¹ Type: C=C	Concentration. D	 =Depletion. R	M=Reduce	ed Matrix.	 CS=Cove	red or Co	ated Sa	 ind Grains. ²	Location: PL=	Pore Lining, M=Ma	ıtrix.
	Indicators: (A									natic Hydric Soils	
	ol (A1)	pplicable to a	ali Lixixo, t		Redox (S			muicato		fluck (A10)	•
	Epipedon (A2)				d Matrix (arent Material (TF2)
	Histic (A3)			-			(excer	ot MLRA 1)		(Explain in Remark	
	gen Sulfide (A4)			-		atrix (F2)	•	····=·····/		(=/	- /
	ted Below Dark				d Matrix (
	Dark Surface (A				Dark Surf			³ Inc	dicators of hyd	rophytic vegetation	and
	Muck Mineral (_		urface (F7)		=	ngy must be presen	
	gleyed Matrix (-	Depressio		•		=	ped or problematic.	
Restrictive	Layer (if prese	nt):		_						-	
	OVEL REFUSA	I - ROCK									
	O * E E : (E : O O) (LINGUIN								V	No X
Type: SH			10					Hydric Soil P	resent?	Yes	
Type: <u>SH</u> Depth (inch Remarks:	es):		10					Hydric Soil P	resent?	Yes	
Type: SHODEPH (inch Depth (inch Remarks: HYDROLOGY Wetland Hy	es): Y ydrology Indica							Hydric Soil P			
Type: SHO Depth (inch Remarks: HYDROLOGY Wetland Hy Primary Ind	es): Y ydrology Indica icators (any one			Water	Noisealla	(D0			Second	ary Indicators (2 or	more required)
Type: SHO Depth (inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surface	ydrology Indicaticators (any one se Water (A1)	indicator is su				eaves (B9) (exce		Second Water-	ary Indicators (2 or Stained Leaves (B	more required)
Type: SHO Depth (inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surfact High V	Y /drology Indica icators (any one be Water (A1) Vater Table (A2)	indicator is su		MLR	A 1, 2, 4A	eaves (B9) (exce		Second Water-	ary Indicators (2 or Stained Leaves (Band 4B)	more required)
Type: SHOPE Depth (inches Permarks: HYDROLOGY Wetland Hy Primary Ind Surfact High V Satura	ydrology Indicaticators (any one the Water (A1) Vater Table (A2)	indicator is su		MLR Salt Cru	A 1, 2, 4 <i>A</i> ust (B11)	and 4B)) (exce		Second Water- 4A Draina	ary Indicators (2 or Stained Leaves (B and 4B) ge Patterns (B10)	more required) 9) (MLRA 1, 2,
Type: SHOPEN SHO	y ydrology Indica icators (any one be Water (A1) Vater Table (A2) ation (A3) Marks (B1)	indicator is su		MLR Salt Cru Aquatic	A 1, 2, 4 <i>A</i> ust (B11) Invertebr	and 4B)) (exce		Second Water- 4A Draina Dry-Se	ary Indicators (2 or Stained Leaves (B and 4B) ge Patterns (B10) eason Water Table	more required) 9) (MLRA 1, 2, (C2)
Type: SHOPEN SHO	ydrology Indica icators (any one be Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B3)	indicator is su		MLR Salt Cru Aquatic Hydrog	A 1, 2, 4 Aust (B11) Invertebren Sulfide	and 4B) rates (B13 rates (C1) (exce	pt	Second Water- 4A Draina Dry-Se	ary Indicators (2 or Stained Leaves (B and 4B) ge Patterns (B10) eason Water Table tion Visible on Aeri	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)
Type: SHI Depth (inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surfact High V Satura Water Sedim Drift D	y ydrology Indica icators (any one be Water (A1) Vater Table (A2) ation (A3) Marks (B1) hent Deposits (B3)	indicator is su		MLR Salt Cru Aquatic Hydrogo Oxidize	A 1, 2, 4A ust (B11) Invertebr en Sulfide d Rhizosp	and 4B) rates (B13 e Odor (C1 oheres alo) (exce))) ng Livir		Second Water- 4A Draina Dry-Se Satura	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)
Type: SHOPEN SHO	ydrology Indica icators (any one be Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B3)	indicator is su		MLR. Salt Cru Aquatic Hydrogo Oxidize Preseno	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	ates (B13 e Odor (C1 oheres alo uced Iron) (exce)) ng Livir (C4)	pt	Second Water- 4A Draina Dry-Se Satura Geome	ary Indicators (2 or Stained Leaves (B and 4B) ge Patterns (B10) eason Water Table tion Visible on Aeri	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)
Type: SHOPEN SHO	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B3) Mat or Crust (B4)	indicator is su		MLR. Salt Cru Aquatic Hydrogo Oxidize Presend Recent	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	ates (B13 e Odor (C1 oheres alo uced Iron) (exce)) ng Livir (C4)	pt ng Roots (C3) Soils (C6)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)
Type: SHI Depth (inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surfact High V Satura Water Sedim Drift D Algal N Iron D Surfact	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) tent Deposits (B3) Mat or Crust (B4) eposits (B5)	indicator is su	ufficient)	MLR. Salt Cru Aquatic Hydrogo Oxidize Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	ates (B13 Odor (C1 Oheres alo uced Iron uction in P) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raiseo	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9))
Type: SHODEPTH (Inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda	y ydrology Indica icators (any one be Water (A1) Vater Table (A2) ation (A3) Marks (B1) hent Deposits (B3) wat or Crust (B4) eposits (B5) be Soil Cracks (B3)	indicator is su 2) 36) Aerial Imagery	ufficient)	MLR. Salt Cru Aquatic Hydrogo Oxidize Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raiseo	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aeriorphic Position (D2) w Aquitard (D3) leutral Test (D5)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9))
Type: SHODEPTH (Inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda	y ydrology Indica icators (any one ice Water (A1) Vater Table (A2) ation (A3) Marks (B1) icent Deposits (B3) Mat or Crust (B4 eposits (B5) ice Soil Cracks (E ation Visible on A ely Vegetated Ce	indicator is su 2) 36) Aerial Imagery	ufficient)	MLR. Salt Cru Aquatic Hydrogo Oxidize Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raiseo	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aeriorphic Position (D2) w Aquitard (D3) leutral Test (D5)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9))
Type: SHOPEN (Inches Permarks: Semarks: SHYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Surface Water	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aelly Vegetated Corvations: atter Present?	indicator is successive successiv	ufficient)	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (C1 rates alo rates alo rated Iron ration in P rated Plants Remarks) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raiseo	ary Indicators (2 or Stained Leaves (Band 4B) ge Patterns (B10) eason Water Table tion Visible on Aeriorphic Position (D2) w Aquitard (D3) leutral Test (D5)	more required) 9) (MLRA 1, 2, (C2) al Imagery (C9))
Type: SHOPEN (Inches Permarks: Semarks: Semarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Field Obse Surface Wa Water table	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aely Vegetated Corvations: atter Present? Present?	indicator is successive successiv	(B7) Lee (B8) No X No X X	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches)	and 4B) rates (B13 rates (C1 rates alo rates alo rated Iron ration in P rated Plants Remarks) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6) _RR A)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raisec Frost-H	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
Type: SHOPepth (inched) Remarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Surface Wa Water table Saturation F	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Marks (B3) Mat or Crust (B4) Mat	indicator is successive successiv	ufficient)	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (C1 rates alo rates alo rated Iron ration in P rated Plants Remarks) (exce)) ng Livir (C4) llowed (pt ng Roots (C3) Soils (C6) _RR A)	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raiseo	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9))
Type: SHODEPH (inches Permarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aely Vegetated Corvations: atter Present? Present?	indicator is successive successiv	(B7) Lee (B8) No X No X No X	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (exce) ng Livir (C4) lowed ((D1) (I	pt ng Roots (C3) Soils (C6) _RR A) Wetland	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raisec Frost-H	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
Type: SHODEPTH (Inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aely Vegetated Corvations: atter Present? Present? Present? apillary fringe)	indicator is successive successiv	(B7) Lee (B8) No X No X No X	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (exce) ng Livir (C4) lowed ((D1) (I	pt ng Roots (C3) Soils (C6) _RR A) Wetland	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raisec Frost-H	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
Type: SHODEPH (inches Permarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aely Vegetated Corvations: atter Present? Present? Present? apillary fringe)	indicator is successive successiv	(B7) Lee (B8) No X No X No X	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (exce) ng Livir (C4) lowed ((D1) (I	pt ng Roots (C3) Soils (C6) _RR A) Wetland	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raisec Frost-H	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)
Type: SHODEPTH (Inch Remarks: HYDROLOGY Wetland Hy Primary Ind Surface High V Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Field Obse Surface Wa Water table Saturation F (includes ca	y ydrology Indicaticators (any one te Water (A1) Vater Table (A2) ation (A3) Marks (B1) Ment Deposits (B3) Mat or Crust (B4) eposits (B5) the Soil Cracks (Eation Visible on Aely Vegetated Corvations: atter Present? Present? Present? apillary fringe)	indicator is successive successiv	(B7) Lee (B8) No X No X No X	MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted Other (I	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (exce) ng Livir (C4) lowed ((D1) (I	pt ng Roots (C3) Soils (C6) _RR A) Wetland	Second Water- 4A Draina Dry-Se Satura Geome Shallor FAC-N Raisec Frost-H	ary Indicators (2 or Stained Leaves (Brand 4B) ge Patterns (B10) eason Water Table tion Visible on Aericorphic Position (D2) w Aquitard (D3) leutral Test (D5) I Ant Mounds (D6) Heave Hummocks (more required) 9) (MLRA 1, 2, (C2) al Imagery (C9)) (LRR A) (D7)

Project/Site:	Plas Newydd Farn	n		City/County	: Clark Cour	nty			Sar	mpling D	ate:	11/12/2015
Applicant/Owner:	Plas Newydd Farn	n					State:	WA	Sar	mpling P	oint:	7
Investigator(s):	T. Stout, K. Biafor	a		Sectio	n, Township	, Range:	S12, T4	4N, R1W				
Landform (hillslope	e, terrace, etc.):	Hillslope		Local re	elief (concav	e, convex	, none):	concave			Slope (%): <u>2-3%</u>
Subregion (LRR):	Northwest Forests	and Coast (LRR A) Lat:	45.840454	•		Long:	122.75428	35°		Datu	m: WGS 84
Soil Map Unit Nam	ne: Olympic ve	ery stony clay loam					NWI Cla	ssification	none			
Are climatic / hydro	ologic conditions on	the site typical for t	his time of y	/ear?	Yes 2	X	No		_(If no,	explain i	in Remar	ks)
Are Vegetation	, Soil	, or Hydrology		significantly	/ disturbed?	Are "N	lormal C	ircumstand	ces" Pre	sent?	Yes X	No
Are Vegetation		, or Hydrology					ded, exp	olain any a	nswers	in Rema	rks.)	
SUMMARY OF	FINDINGS - A	ttach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	ortant	feature	s, etc.	
Hydrophytic Veget	ation Present?	Yes X No)	1.41.0		_						
Hydric Soil Presen	it?	Yes X No)		ampled Area a Wetland?	a	Yes	Χ	No			
Wetland Hydrology	y Present?	Yes X No)	Within	a welland:		•					
Remarks:	-	<u> </u>										
VEGETATION												
T Otrostores (III		`	Absolute % Cover	Dominant Species?	Indicator Status?			t workshe				
,	se scientific names.)	25		FACW			ACW, or F			•	(A)
1. Fraxinus latifo	lia		35	<u> </u>	TACVV			Dominant	_		2	(A)
2 3.					- ——			All Strata:			2	(B)
4.									_			(D)
4.		Total Cover:	25					nant Spec		10	00%	(A/B)
		Total Cover.	35			IIIat Ait	ODL, F	ACW, or F	AC	10	10%	(A/D)
Shrub Stratum						Prevale	nce Inde	ex Worksh	neet:			
1.						Tot	al % Co	ver of:		Multi	ply by:	
2.						OBL spe	ecies		x1 =		0	<u>—</u>
3.						FACW s	pecies		x2 =		0	<u></u>
4.						FAC spe	ecies		x3 =		0	_
5.									x4 =		0	<u>—</u>
		Total Cover:	0			UPL spe			x5 =		0	
Herb Stratum						Column	Totals:	0	(A)		0	(B)
1. Phalaris arund	dinacea		100	Υ	FACW	Preva	ence Inc	dex = B/A =		#DIV	/0!	
2. Rubus armeni	acus		1		FACU							<u> </u>
3.						Hydrop	hytic Ve	getation I	ndicato	rs:		
4.							1 - Rap	id Test for	Hydrop	hytic Ve	getation	
5.						X	2 - Don	ninance Te	est is >5	0%		
6.						#####	3 - Prev	valence Inc	dexis ≤	3.0 ¹		
7.							4 - Mor	phological	Adapta	tion1 (Pr	ovide sur	pporting
8.							data in	Remarks	or on a	separate	sheet)	
9.								land Non-				
10.							Probler	natic Hydr	ophytic	Vegetati	on ¹ (Expl	ain)
		Total Cover:	101									
Woody Vine S	<u>tratum</u>							dric soil an				t
2.						•						
		Total Cover:	0		-	Hydrop Vegetat						
% Ra	re Ground in Herb S			otic Crust	0	Present			Yes X	(No	
Remarks:	2.03114 111 1010 0		20.0.0101	01400					. 55 /			

Depth (inches) 7	iption: (Describe Matrix Color (moist)	to the de	epth need		ment th	e indicato	or or cor	nfirm the abse	ence of inc	dicators.)		
(inches) 7												
0-5 7	Color (mojet)			Red	ox Featu	res		_				
	Color (Inoist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture			Remarks	
<u>5-12</u> <u>7</u>	'.5 YR 2.5/2	100						SCL				
	'.5 YR 3/2	80	5 YR 3/4	<u> </u>	10	С	М	SCL				
			5 YR 4/6	<u> </u>	10	С	М	_				
12-16 5	YR 4/2	80	5 YR 3/4	<u> </u>	10	С	М	SCL				
			5 YR 4/6	<u> </u>	10	С	М					
								_				
¹ Type: C=Co	ncentration, D=Dep	oletion, RN	M=Reduce	ed Matrix, C	S=Cove	red or Coa	ated San	id Grains. ² Lo	cation: PL	_=Pore Lining	g, M=Matrix.	
-	ndicators: (Applic	able to a	II LRRs, ι			-		Indicators		ematic Hydr	ic Soils³:	
Histosol				Sandy R				-		Muck (A10)		
	pipedon (A2)			Stripped				-		Parent Mater		
Black Hi				_	-		(except	MLRA 1)	Othe	r (Explain in	Remarks)	
	n Sulfide (A4)			_	-	atrix (F2)						
	d Below Dark Surfa	ce (A11)		_ Depleted				2				
	ark Surface (A12)		<u>X</u>	_			_		-	drophytic ve	_	
	luck Mineral (S1)			_		ırface (F7)		-	ology must be		
	leyed Matrix (S4)			_ Redox D	epressio	ns (F8)	1	u	nless distu	rbed or prob	lematic.	
Restrictive L	ayer (if present):											
Type:							١			.,	v	
Depth (inches	<u> </u>						l H	ydric Soil Pre	sent?	Ye	s <u>X</u>	No
Wetland Hyd	rology Indicators:		fficient						Sagan	dan Indicate	pro /2 or more	a required)
Wetland Hyd Primary Indica	ators (any one indic		fficient)	Water St	rained La	noves (PO	Voyage				ors (2 or more	
Wetland Hyd Primary Indica Surface	ators (any one indic Water (A1)		fficient)			eaves (B9)) (excep	t	Wate	er-Stained Le	ors (2 or more aves (B9) (N	
Wetland Hyd Primary Indica Surface X High Wa	ators (any one indic Water (A1) iter Table (A2)		fficient)	MLRA	1, 2, 4A	eaves (B9)) (excep	t	Wate	er-Stained Le	aves (B9) (N	
Wetland Hyd Primary Indica Surface X High Wa Saturatio	ators (any one indic Water (A1) Iter Table (A2) on (A3)		fficient)	MLRA Salt Crus	. 1, 2, 4A st (B11)	and 4B)		t	Wate 4, Drair	er-Stained Le A and 4B) nage Patterns	eaves (B9) (N	ILRA 1, 2,
Wetland Hyd Primary Indica Surface X High Wa Saturatic Water M	ators (any one indic Water (A1) Iter Table (A2) on (A3) Iarks (B1)		fficient)	MLRA Salt Crus Aquatic I	. 1, 2, 4A st (B11) nvertebra	and 4B))	t	Wate 4, Drair Dry-S	er-Stained Le A and 4B) nage Patterns Season Wate	eaves (B9) (N s (B10) er Table (C2)	ILRA 1, 2,
Wetland Hyd Primary Indica Surface X High Wa Saturatio Water M Sedimer	ators (any one indic Water (A1) Iter Table (A2) on (A3) Iarks (B1) It Deposits (B2)		fficient)	MLRA Salt Crus Aquatic I Hydrogei	a 1, 2, 4A st (B11) nvertebra n Sulfide	and 4B) ates (B13 Odor (C1)		Wate 4/ Drair Dry-S Satur	er-Stained Le A and 4B) nage Patterns Season Water ration Visible	aves (B9) (N s (B10) er Table (C2) on Aerial Im	ILRA 1, 2,
Wetland Hyd Primary Indica Surface X High Wa Saturatio Water M Sedimer Drift Dep	ators (any one indic Water (A1) Inter Table (A2) In (A3) Inter (B1) Inter Deposits (B2) Interpretation (B2)		fficient)	MLRA Salt Crus Aquatic I Hydrogei Oxidized	a 1, 2, 4A st (B11) nvertebra n Sulfide Rhizosp	and 4B) ates (B13 Odor (C1 heres alo)) ng Living	t	Wate 4/ Drain Dry-S Satur Geor	er-Stained Le A and 4B) nage Patterns Season Wate ration Visible norphic Posi	aves (B9) (N s (B10) er Table (C2) on Aerial Im tion (D2)	ILRA 1, 2,
Wetland Hyd Primary Indica Surface X High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	ators (any one indic Water (A1) Iter Table (A2) on (A3) Iarks (B1) Int Deposits (B2) Posits (B3) It or Crust (B4)		fficient)	MLRA Salt Crus Aquatic I Hydrogei Oxidized Presence	at (B11) nvertebran Sulfide Rhizospe of Redu	and 4B) ates (B13 Odor (C1 heres alo uced Iron)) ng Living (C4)	g Roots (C3)	Wate 4/ Drair Dry-S Satul Geor Shall	er-Stained Le A and 4B) age Patterns Season Water ration Visible morphic Positow ow Aquitard	aves (B9) (Notes (B10) For Table (C2) on Aerial Imultion (D2) (D3)	ILRA 1, 2,
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Wetland Hyd Primary Indica Surface X High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	ators (any one indic Water (A1) Inter Table (A2) In (A3) In (A3) In (B1) In (Deposits (B2) In (B3) Int or Crust (B4) In (B5) Soil Cracks (B6) In Visible on Aerial	ator is su	(B7)	MLRA Salt Crus Aquatic I Hydrogei Oxidized Presence Recent Ii Stunted o	at (B11) nvertebra n Sulfide Rhizosp e of Redu fon Redu or Stress	and 4B) ates (B13 Odor (C1 heres alo uced Iron action in P) ng Living (C4) lowed So (D1) (LF	g Roots (C3)	Wate 4/ Drain Dry-S Satur Geor Shall FAC- Raise	er-Stained Le A and 4B) nage Patterns Season Wate ration Visible morphic Posi ow Aquitard Neutral Test	exes (B9) (Notes (B10)) exert Table (C2) on Aerial Imition (D2) (D3) is (D5) ds (D6) (LRF	ILRA 1, 2, agery (C9)
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	_	n, Township,	Range:	State: S12, T4		Sampl	ing Point:	8
	_		Range:	S12, T4	N, R1W			
	Local re	P . C /						
		liet (concave	e, convex,	, none):_	concave		Slope (%):	3-5%
Lat:	45.840454°			Long:	122.75428	85°	Datum	: WGS 84
			1	NWI Clas	ssification:	none		
ne of y	ear?	Yes X		-				
			Are "N	ormal Ci	rcumstand	es" Prese	nt? Yes X	_No
	naturally pro	oblematic?	(If nee	ded, exp	lain any ai	nswers in F	Remarks.)	
ving s	sampling	point loca	itions, t	ransec	ts, impo	rtant fea	atures, etc.	
	Is the Sa	ampled Area	a					
		•		Yes		_ No <u>X</u>		
	Dominant	Indicator	Domina	nce Tes	t workshe	et:		
over	Species?	Status?			•			
40	Υ	FACW	I nat Are	OBL, F	ACW, or F	AC:	2	_(A)
10		FACU						
10			Species	Across A	All Strata:		4	_(B)
10		FACU			•			
70			That Are	OBL, F	ACW, or F	AC:	50%	_(A/B)
		-	Dravala		ما معاد ما ۱۸۷ مد			
10		FΔCII				ieet:	Multiply by	
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						x4 =	0	_
70				·		x5 =	0	_
			Column	Totals:	0	(A)	0	(B)
2	Υ	FACU	Preval	ence Ind	ex = B/A =	<u> </u>	#DIV/0!	_
2	<u>Y</u>	FAC						
			Hydroph	•	-			
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				FIODIEII	ialic i iyun	philytic ve	getation (Explai	11)
4								
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0				•				
	otic Crust	0	_			Yes	No X	
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	ving s oblute over 40 10 10 70 60 70 2 2 4	naturally proving sampling Is the Sawithin a Dominant Species? Y 10 10 10 70 2 Y 2 Y 4 4	significantly disturbed? naturally problematic? ving sampling point locate Is the Sampled Area within a Wetland? Dominant Species? Indicator Status? 40 Y FACU 10 FACU 10 FACU 70 10 FACU 70 2 Y FACU 2 Y FAC 2 Y FAC 3 FACU 4 FACU 5 FACU 6 FACU 7 FACU 7 FACU 7 FACU 7 FACU 7 FACU 7 FACU 7 FACU 7 FACU 7 FACU 9 FACU	significantly disturbed? Are "N naturally problematic? (If nee ving sampling point locations, to list the Sampled Area within a Wetland? Steel Sampled Area within a Wetland? Domina Number That Are Species? Status? Total Number That Are Species Facu Percent That Are Species Facu Percent That Are Species Facu F	significantly disturbed? Are "Normal Cinaturally problematic? (If needed, exposing sampling point locations, transections) wing sampling point locations, transections within a Wetland? Is the Sampled Area within a Wetland? Is the Sampled Area within a Wetland? Yes	significantly disturbed? Are "Normal Circumstance" (If needed, explain any are wing sampling point locations, transects, imposite within a Wetland? Is the Sampled Area within a Wetland?	significantly disturbed? naturally problematic? naturally problematic? (If needed, explain any answers in F ving sampling point locations, transects, important feat within a Wetland? Is the Sampled Area within a Wetland?	significantly disturbed? naturally problematic? (If needed, explain any answers in Remarks.) ving sampling point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Species? Status?

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nches)	Color (moist)	%	Color (ı		%	Type ¹	Loc ²	– Texture	1		Remarks	
·6	7.5 YR 3/2	100	1) 10100	moistj		Турс		CLAY LOA			remans	
-12	5 YR 3/3	100					-	CLAY LOA				
2-16	5 YR 3/3	50	5 YR 3/4		50	<u>C</u>	M	CLAY LOA				
	0 111 0/0		0 111 0/1			<u> </u>		<u>OLKI LON</u>				
								_				
ype: C=C	 Concentration, D=D	epletion, RI	M=Reduced	d Matrix, (CS=Cove	red or Co	ated Sar	nd Grains. ² Lo	cation: P	L=Pore Linin	ng, M=Matrix.	
ydric Soil	I Indicators: (App	licable to a	II LRRs, ui	nless oth	erwise n	oted.)		Indicators	for Prob	lematic Hyd	ric Soils ³ :	
Histos	sol (A1)			Sandy F	Redox (S5	5)			2 cn	n Muck (A10))	
Histic	Epipedon (A2)			Stripped	d Matrix (S	S6)			Red	Parent Mate	erial (TF2)	
Black	Histic (A3)			Loamy I	Mucky Mi	neral (F1)	(except	MLRA 1)	Othe	er (Explain in	Remarks)	
_ Hydro	gen Sulfide (A4)			Loamy	Gleyed M	atrix (F2)						
_ Deplet	ted Below Dark Su	rface (A11)			d Matrix (
Thick	Dark Surface (A12)			Dark Surfa	, ,					egetation and	
Sandy	Muck Mineral (S1)		Deplete	d Dark Sı	urface (F7	')	we	tland hydr	ology must b	oe present,	
_ Sandy	gleyed Matrix (S4)		Redox [Depressio	ns (F8)		U	nless dist	urbed or prol	blematic.	
estrictive	Layer (if present):										
epth (inch	es):						Н	lydric Soil Pre	sent?	Yε	es	No X
epth (inch narks:	Y	rs:					Н	ydric Soil Pre	sent?	Υє	es	No X
epth (inch narks: PROLOGY	Y ydrology Indicato		fficient)				Н	lydric Soil Pre				
epth (inch narks: PROLOGY etland Hy	Y		fficient)	Water-S	Stained Le	eaves (B9			Seco	ndary Indicat	tors (2 or moreaves (B9) (N	e require
PROLOGY etland Hy imary Ind Surfac	Y ydrology Indicato icators (any one in ce Water (A1)		fficient)			eaves (B9) (excep		Seco Wat	ndary Indicat	tors (2 or mor	e require
PROLOGY etland Hy imary Ind Surface High V	Y ydrology Indicato icators (any one in		fficient)	MLR		`) (excep		Seco Wat	ndary Indicat er-Stained Lo	tors (2 or mor eaves (B9) (N	e require
ROLOGY etland Hy imary Ind Surfac High V Satura	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2)		fficient)	MLR. Salt Cru	A 1, 2, 4A ust (B11)	`) (excep		Seco Wat 4 Drai	ndary Indicat er-Stained Lo IA and 4B) inage Patterr	tors (2 or mor eaves (B9) (N	e require
PROLOGY etland Hy imary Ind Surfac High V Satura Water	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3)		fficient)	MLRA Salt Cru Aquatic	A 1, 2, 4A ıst (B11) Invertebr	and 4B)) (excep		Seco Wat 4 Drai Dry-	ndary Indicat er-Stained Lo I A and 4B) inage Patterr -Season Wat	tors (2 or mor eaves (B9) (N	e require
PROLOGY etland Hy imary Ind Surfac High V Satura Water Sedim	ydrology Indicato icators (any one in ce Water (A1) Vater Table (A2) ation (A3)		fficient)	MLRA Salt Cru Aquatic Hydroge	A 1, 2, 4A ust (B11) Invertebr en Sulfide	and 4B) rates (B13 rates (C1) (excep		Seco Wat 4 Drai Dry- Satu	ndary Indicat er-Stained Lo I A and 4B) inage Patterr -Season Wat	tors (2 or mor eaves (B9) (M ns (B10) ter Table (C2) e on Aerial In	e require
PROLOGY etland Hy imary Ind High V Satura Water Sedim Drift D	ydrology Indicato icators (any one in ce Water (A1) Vater Table (A2) ation (A3) Marks (B1) nent Deposits (B2)		fficient)	MLRA Salt Cru Aquatic Hydroge Oxidize	A 1, 2, 4A ust (B11) Invertebr en Sulfide d Rhizosp	and 4B) rates (B13 rates (C1) (excep	ıt .	Seco Wat 4 Drai Dry- Satu Geo	ndary Indicat rer-Stained Lo IA and 4B) inage Pattern Season Wat uration Visible	tors (2 or mor eaves (B9) (Mons (B10) ter Table (C2) e on Aerial Instition (D2)	e require
PROLOGY Petland Hyrimary Ind Surface High V Satura Water Sedim Drift D Algal N	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) ment Deposits (B2)		fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Presence	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	and 4B) rates (B13 rates (C1 cheres alo) (excep) l) ng Livin (C4)	g Roots (C3)	Seco Wat Drai Dry- Satu Geo Sha	ndary Indicater-Stained Louis IA and 4B) inage Patterneseason Water Indication Visible incorphic Pos	tors (2 or mor eaves (B9) (Notes (B10) for Table (C2) e on Aerial Instition (D2) If (D3)	e require
PROLOGY Petland Hyrimary Ind Surfac High V Satura Water Sedim Drift D Algal I	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4)	dicator is su	fficient)	MLRA Salt Cru Aquatic Hydroge Oxidized Present Recent	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Red	and 4B) rates (B13 e Odor (C1 oheres alo uced Iron) (excep) I) Ing Livin (C4)	g Roots (C3)	Seco Wat Drai Dry- Satu Geo Sha	ndary Indicates A and 4B) inage Pattern Season Wateration Visible omorphic Postllow Aquitard C-Neutral Tes	tors (2 or mor eaves (B9) (Notes (B10) for Table (C2) e on Aerial Instition (D2) If (D3)	e require
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PROLOGY Petland Hyrimary Ind Satura Water Sedim Drift D Algal N Iron D Surfac	ydrology Indicato icators (any one in ce Water (A1) Vater Table (A2) ation (A3) Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6)	dicator is su	——————————————————————————————————————	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospece of Redu Iron Redu or Stress	ates (B13 e Odor (C1 oheres alo uced Iron uction in P) (except)) Ing Living (C4) Rlowed S	g Roots (C3)	Seco Wat A Drai Dry- Satu Geo Sha FAC	ndary Indicate rer-Stained Los A and 4B) inage Pattern Season Wateration Visible omorphic Postllow Aquitand C-Neutral Tested Ant Mour	tors (2 or moreaves (B9) (Moreo (B10)) ter Table (C2) te on Aerial Implication (D2) to (D3) to (D5) to (D6) (LRI	e require //LRA 1,) nagery (C
PROLOGY Petland Hyrimary Ind Satura Water Sedim Drift D Algal I Iron D Surface Inunda Sparse eld Obse	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6) ation Visible on Ae ely Vegetated Con	dicator is su	(B7)	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (C1 rates alo rates alo rated Iron ration in P rated Plants Remarks) (except)) Ing Living (C4) Rlowed S	g Roots (C3)	Seco Wat A Drai Dry- Satu Geo Sha FAC	ndary Indicate rer-Stained Los A and 4B) inage Pattern Season Wateration Visible omorphic Postllow Aquitand C-Neutral Tested Ant Mour	tors (2 or moreaves (B9) (Moreo (B10)) ter Table (C2) te on Aerial Implication (D2) to (D3) to (D5) to (D6) (LRI	e require //LRA 1,) nagery (C
rimary Ind Surfac High V Satura Water Sedim Drift D Algal N Iron D Surfac Inunda Sparse ield Obse urface Wa	y ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6 ation Visible on Ae rely Vegetated Con irvations:	dicator is su rial Imagery cave Surfac	(B7) e (B8)	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red or Stress Explain in	and 4B) rates (B13 rates (C1 cheres alo uced Iron uction in P sed Plants Remarks) (except)) Ing Living (C4) Rlowed S	g Roots (C3)	Seco Wat A Drai Dry- Satu Geo Sha FAC	ndary Indicate rer-Stained Los A and 4B) inage Pattern Season Wateration Visible omorphic Postllow Aquitand C-Neutral Tested Ant Mour	tors (2 or moreaves (B9) (Moreo (B10)) ter Table (C2) te on Aerial Implication (D2) to (D3) to (D5) to (D6) (LRI	e require
PROLOGY Petland Hyrimary Ind Surfac High V Satura Water Sedim Drift D Algal N Iron D Surfac Inunda Sparse Geld Obse urface Wa	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6) ation Visible on Ae ely Vegetated Con vrvations:	dicator is su	(B7)	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red or Stress Explain in (inches)	and 4B) rates (B13 rates (C10) rates alouced Iron ration in Property and Plants Remarks) (except)) Ing Living (C4) Rlowed S	g Roots (C3)	Seco Wat Drai Dry- Satu Geo Sha FAC Rais Fros	ndary Indicater-Stained Long Pattern Season Water Unation Visible omorphic Postlow Aquitard C-Neutral Tested Ant Mourst-Heave Hur	tors (2 or moreaves (B9) (Moreo (B10)) ter Table (C2) te on Aerial Implication (D2) to (D3) to (D5) to (D6) (LRI	e require
PROLOGY Petland Hyrimary Ind Surface High W Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Sparse Seld Obse urface Water table aturation F	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6) ation Visible on Ae ely Vegetated Con vrvations:	rial Imagery cave Surfac	(B7) e (B8) X No X No X	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red or Stress Explain in	and 4B) rates (B13 rates (C10) rates alouced Iron ration in Property and Plants Remarks) (except)) Ing Living (C4) Rlowed S	g Roots (C3) oils (C6) RR A)	Seco Wat Drai Dry- Satu Geo Sha FAC Rais Fros	ndary Indicater-Stained Long Pattern Season Water Unation Visible omorphic Postlow Aquitard C-Neutral Tested Ant Mourst-Heave Hur	tors (2 or moreaves (B9) (Notes (B10)) ter Table (C2) te on Aerial Instition (D2) tf (D3) tf (D5) th (D6) (LRI th (D6) (LRI th (D7)	e require
PROLOGY Petland Hyrimary Ind Surface High W Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Seld Obse urface Water table aturation Fincludes ca	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6 ation Visible on Ae ely Vegetated Con irvations: ater Present?	rial Imagery cave Surfac res res	(B7) e (B8) X No X No X No X	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (excep) ng Livin (C4) Plowed S (D1) (L	g Roots (C3) oils (C6) RR A) Wetland Hy	Seco Wat Drai Dry- Satu Geo Sha FAC Rais Fros	ndary Indicater-Stained Long Pattern Season Water Unation Visible omorphic Postlow Aquitard C-Neutral Tested Ant Mourst-Heave Hur	tors (2 or moreaves (B9) (Notes (B10)) ter Table (C2) te on Aerial Instition (D2) tf (D3) tf (D5) th (D6) (LRI th (D6) (LRI th (D7)	e require
PROLOGY Petland Hyrimary Ind Surface High W Satura Water Sedim Drift D Algal N Iron D Surface Inunda Sparse Seld Obse urface Water table aturation Fincludes ca	ydrology Indicato icators (any one in ce Water (A1) Water Table (A2) ation (A3) Marks (B1) hent Deposits (B2) Deposits (B3) Mat or Crust (B4) reposits (B5) ce Soil Cracks (B6 ation Visible on Ae rely Vegetated Con revations: ater Present?	rial Imagery cave Surfac res res	(B7) e (B8) X No X No X No X	MLRA Salt Cru Aquatic Hydroge Oxidized Presend Recent Stunted Other (E	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Red or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat) (excep) ng Livin (C4) Plowed S (D1) (L	g Roots (C3) oils (C6) RR A) Wetland Hy	Seco Wat Drai Dry- Satu Geo Sha FAC Rais Fros	ndary Indicater-Stained Long Pattern Season Water Unation Visible omorphic Postlow Aquitard C-Neutral Tested Ant Mourst-Heave Hur	tors (2 or moreaves (B9) (Notes (B10)) ter Table (C2) te on Aerial Instition (D2) tf (D3) tf (D5) th (D6) (LRI th (D6) (LRI th (D7)	e require

Project/Site:	Plas Newydd Farm		City/County	: Clark Cour	nty			Sampling	Date:	11/18/2015
Applicant/Owner:	Plas Newydd Farm					State:	WA	Sampling	Point:	9
Investigator(s):	T. Stout, K. Biafora		Sectio	n, Township	, Range:	S12, T4	4N, R1W			
Landform (hillslope	e, terrace, etc.): Hillslope		_	elief (concav			concave		Slope (%): <u>2-3%</u>
Subregion (LRR):	Northwest Forests and Coast		45.840454	•		_	122.754285		Datur	m: WGS 84
Soil Map Unit Nam		•					ssification:			
Are climatic / hydro	ologic conditions on the site typ			_		_			in in Remarl	
Are Vegetation	, Soil, or Hyd									No
Are Vegetation	, Soil, or Hyd	rology	naturally pr	oblematic?	(If nee	ded, exp	olain any ans	wers in Rei	narks.)	
SUMMARY OF	FINDINGS - Attach site	e map showing	sampling	point loca	ations, 1	ransec	ts, impor	tant featu	ıres, etc.	
Hydrophytic Veget	ation Present? Yes X	No								
Hydric Soil Presen				ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrolog	y Present? Yes X	No	WILLIIII	a welland:		-				
Remarks:										
VEGETATION										
Tree Stratum (U	se scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?			t workshee nant Specie			
Fraxinus latifo	•	30	Υ	FACW	That Are	OBL, F	ACW, or FA	C:	5	(A)
2.					Total Nu	ımber of	Dominant			<u> </u>
3					Species	Across A	All Strata:		5	(B)
4					Percent	of Domii	nant Specie	3		
	Tota	al Cover: 30			That Are	OBL, F	ACW, or FA	C:	100%	(A/B)
Shrub Stratum		-	V	FACW			ex Workshe		10.1 6	
 Salix lasiandra Crataegus doi 			<u>Y</u> Y	FAC	OBL spe	al % Cov			ultiply by:	_
 Crataegus doi . 	uyiasii	5	<u> </u>	170		_			0	_
4.					FAC spe	-			0	_
5.					•	-	·		0	_
	Tota	al Cover: 10		-	UPL spe	_		x5 =	0	_
Herb Stratum					Column	Totals:	0		0	(B)
1. Phalaris arund	dinacea	60	Υ	FACW		_	dex = B/A =		IV/0!	
2. Lysimachia nu	ımmularia	5		FACW						
3. Carex obnupta	а	35	Υ	OBL	Hydrop	hytic Ve	getation Inc	licators:		
4. Rumex crispu	S	1		FAC		1 - Rap	id Test for H	lydrophytic \	Vegetation	
5. Galium trifidur	m	1		FACW	X		ninance Tes			
6					#####	3 - Prev	valence Inde	x is ≤3.0 ¹		
7							_		(Provide sup	porting
·		<u> </u>					Remarks or	•	,	
4.0							land Non-Va			
				- ——		Problen	natic Hydrop	hytic Veget	ation ¹ (Expla	ain)
11	Tota	al Cover: 102								
Woody Vine S		102			1Indicate	oro of by	dria aail and	wotland by	drology mus	.
1.	ou atum						ss disturbed			Ĺ
2.										
·	Tota	al Cover: 0			Hydrop Vegetat					
% Ba	re Ground in Herb Stratum			0	Present		,	Yes X	No	
Remarks:										
1										

rofile De	escription: (Describe	to the de	epth needed to doc	ument th	e indicat	or or c	onfirm the abs	ence of inc	licators.)		
Depth	Matrix		Rec	dox Featu	ıres						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc	² Textur	<u> </u>		Remarks	
)-5	10 YR 4/2	95	7.5 YR 4/6	3	С	М	SILT LOA	М			
	_		10 YR 5/2	2	D	М					
5-11	10 YR 5/2	60	5 YR 5/8	7	С	М	SCL				
			10 YR 4/4	3	С	М					
	- 		10 YR 2/1	30	C	M		<u>OF</u>	RGANIC MAT	TER COA	TING PEI
1-16	10 YR 6/2	70	7.5 YR 5/8	30	С	M	SCL				
Type: C=		oletion, RI	M=Reduced Matrix, (CS=Cove	red or Co	ated Sa	and Grains. ² L	ocation: PL	=Pore Lining,	M=Matrix.	
lydric Sc	oil Indicators: (Applic	able to a	II LRRs, unless oth	erwise n	oted.)		Indicator	for Proble	matic Hydric	Soils ³ :	
Histo	osol (A1)		Sandy F	Redox (S	5)			2 cm	Muck (A10)		
— Histic	c Epipedon (A2)		Stripped	d Matrix (S6)			Red F	Parent Materia	al (TF2)	
 Blacl	k Histic (A3)		Loamy	Mucky Mi	neral (F1)	(exce	ot MLRA 1)	Other	(Explain in Re	emarks)	
— Hydr	ogen Sulfide (A4)		Loamy	Gleyed M	atrix (F2))					
	eted Below Dark Surfa	ce (A11)		d Matrix (
	k Dark Surface (A12)	, ,		Dark Surfa			³ Indi	cators of hy	drophytic vege	etation and	l
	dy Muck Mineral (S1)			d Dark Sı		7)		=	logy must be p		
	dy gleyed Matrix (S4)			Depressio		,		-	rbed or proble		
estrictiv	e Layer (if present):										
	, , ,										
ype: epth (inc	shoe).								V	v	No
							Hydric Soil Dr	acant?			
. `	<u> </u>						Hydric Soil Pr	esent?	Yes_	<u> </u>	
. `							Hydric Soil Pr	esent?	Yes_		
marks:	GY.						Hydric Soil Pr	esent?	Yes_		NO
DROLOG	GY Hydrology Indicators:						Hydric Soil Pr		-		
DROLOG Vetland F	GY Hydrology Indicators: dicators (any one indic							Secon	dary Indicators	s (2 or mor	re require
DROLOG Vetland F	GY Hydrology Indicators:			Stained Le	eaves (B9			Secon	-	s (2 or mor	re require
DROLOG Vetland Frimary In	GY Hydrology Indicators: dicators (any one indic		Water-S	Stained Le A 1, 2, 4 <i>A</i>)) (exce		Second Wate	dary Indicators	s (2 or mor	re require
DROLOG Vetland F Primary In Surfa	GY Hydrology Indicators: dicators (any one indicators (A1)		Water-S)) (exce		Second Wate	dary Indicators r-Stained Leav	s (2 or mor ves (B9) (I	re require
DROLOG Vetland Formary In Surfa High Satu	Hydrology Indicators: dicators (any one indicace Water (A1) Water Table (A2)		Water-S MLR Salt Cru	A 1, 2, 4A	and 4B))) (exce		Second Wate 44 Drain	dary Indicators r-Stained Leav	s (2 or mor ves (B9) (f (B10)	re require
DROLOG Vetland H Primary In Surfa High Satur	Hydrology Indicators: dicators (any one indicate Water (A1) Water Table (A2) ration (A3)		Water-S MLR. Salt Cru Aquatic	A 1, 2, 4 <i>A</i> ust (B11)	and 4B)	(exce		Second Wate 44 Drain Dry-S	dary Indicators r-Stained Leav and 4B) age Patterns (s (2 or mor ves (B9) (I (B10) Table (C2	re require
DROLOG Vetland F Primary In Surfa High Satur Wate Sedir	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1)		Water-S MLR. Salt Cru Aquatic Hydroge	A 1, 2, 4 Aust (B11) Invertebren Sulfide	and 4B) rates (B13 rates (C	(exce		Second Wate 44 Drain Dry-S	dary Indicators r-Stained Leav a and 4B) age Patterns (leason Water	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In	re require
DROLOG Vetland F Primary In Surfa High Satur Wate Sedii Drift	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		Water-S MLR. Salt Cru Aquatic Hydroge Oxidize	A 1, 2, 4 Aust (B11) Invertebren Sulfide	and 4B) rates (B13 e Odor (Coheres ald	i) (exce	pt	Second Wate 44 Drain Dry-S Satur Geon	dary Indicators r-Stained Leav and 4B) age Patterns (leason Water ation Visible o	s (2 or mor ves (B9) (I (B10) Table (C2) on Aerial In on (D2)	re require
DROLOG Vetland F Primary In Surfa High Satur Wate Sedir Drift Algal	Hydrology Indicators: dicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		Water-S MLR. Salt Cru Aquatic Hydrogo Oxidize Preseno	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	and 4B) rates (B13 e Odor (Copheres ald	(C4)	pt	Second Wate 44 Drain Dry-S Satur Geond Shalld	dary Indicators r-Stained Leav a and 4B) age Patterns (eason Water ation Visible o	s (2 or mor ves (B9) (f (B10) Table (C2 on Aerial In on (D2)	re require
DROLOG Vetland F Primary In Surfa High Satur Wate Sedir Drift Algal	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4)		Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red	and 4B) rates (B13 rates (Cobheres alcuced Iron rates (B13)	3) 1) ong Livi (C4)	ng Roots (C3) Soils (C6)	Second Wate 4.4 Drain Dry-S Satur Geon Shalld	dary Indicators r-Stained Leav a and 4B) age Patterns (eason Water ation Visible o	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3)	re require MLRA 1,
DROLOG Vetland H Primary In Satur Wate Sedin Drift Algal Iron I	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)	ator is su	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presenc Recent Stunted	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospece of Red Iron Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leav a and 4B) age Patterns (leason Water ation Visible o norphic Position by Aquitard (E	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require VILRA 1,) nagery (C
DROLOG Vetland F Primary In Surfa High Satur Wate Sedir Drift Algal Iron I Surfa	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A2)) Tation (A3) The Marks (B1) The Marks (B2) The Marks (B3) The Marks (B3) The Marks (B4) The Marks (B4) The Marks (B5) The Marks (B6) The Marks (B	ator is su	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted (B7) Water-S	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leave a and 4B) age Patterns (leason Water ation Visible of horphic Position ow Aquitard (E Neutral Test (I	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require VILRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Drift Algal Iron I Surfa (Inund	Hydrology Indicators: dicators (any one indicators (any one indicators) dicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial rsely Vegetated Concav	ator is su	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presend Recent Stunted (B7) Water-S	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	ates (B13 e Odor (C oheres ald uced Iron uction in F sed Plants	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leave a and 4B) age Patterns (leason Water ation Visible of horphic Position ow Aquitard (E Neutral Test (I	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require MLRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa (Inunc	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A2)) Tation (A3) The Marks (B1) The Marks (B2) The Marks (B3) The Marks (B3) The Marks (B4) The Marks (B4) The Marks (B5) The Marks (B6) The Marks (B	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted (B7) Other (Be	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (B13 rates (Control rates ald r	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leave a and 4B) age Patterns (leason Water ation Visible of horphic Position ow Aquitard (E Neutral Test (I	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require MLRA 1,) nagery (C
Metland Formary In Surfa High Satur Wate Sedir Algal Iron I Surfa K Inunc	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial rely Vegetated Concaverservations:	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted (B7) Other (Be (B8)	A 1, 2, 4A ust (B11) Invertebren Sulfided Rhizospee of Red Iron Redu	and 4B) rates (B13 rates (B13 rates (Canada and AB) rates (B13 rat	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leave a and 4B) age Patterns (leason Water ation Visible of horphic Position ow Aquitard (E Neutral Test (I	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require MLRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa (Inunc Span	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A3)) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (Asely Vegetated Concaveryations: Vater Present? Yes	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (Ee (B8) No X Depth No X Depth No X Depth Depth	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in	and 4B) rates (B13 rates (B13 rates (Capacita) (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita (Capacita) (Capacita) (Capacita) (Capacita (Capacita) (Capacita) (Capacita) (Capacita (Capacita) (Ca	B) (exce B) 1) ong Livi (C4) Plowed s (D1) (ng Roots (C3) Soils (C6) LRR A)	Second Wate 4A Drain Dry-S Satur Geon Shalld FAC- Raise	dary Indicators r-Stained Leave a and 4B) age Patterns (eason Water ation Visible of norphic Position ow Aquitard (D Neutral Test (I and Ant Mounds Heave Humm	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LR	re require MLRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa (Inunc Span Field Obs Surface W Water tabl Saturation includes of	Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators (any one indicators (A1)) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (A1) resely Vegetated Concaverations: Vater Present? Yes le Present? Yes capillary fringe)	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (Be No X Depth No X Depth	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat	(C4) Plowed is (D1) (C5)	ng Roots (C3) Soils (C6) LRR A) Wetland H	Second Wate 44 Drain Dry-S Satur Geon Shalld FAC- Raise Frost	dary Indicators r-Stained Leave a and 4B) age Patterns (eason Water ation Visible of norphic Position ow Aquitard (D Neutral Test (I and Ant Mounds Heave Humm	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LRI nocks (D7)	re require MLRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa K Inunc Span Field Obs Surface W Water tabl Saturation includes of	Hydrology Indicators: dicators (any one indicators (A3)) Water Table (A2) ration (A3) Per Marks (B1) Indicator (B3) I Mat or Crust (B4) Deposits (B3) I Mat or Crust (B4) Deposits (B5) Face Soil Cracks (B6) Idation Visible on Aerial (Asely Vegetated Concaversations: Vater Present? Yes Present? Yes Present? Yes	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (Be No X Depth No X Depth	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat	(C4) Plowed is (D1) (C5)	ng Roots (C3) Soils (C6) LRR A) Wetland H	Second Wate 44 Drain Dry-S Satur Geon Shalld FAC- Raise Frost	dary Indicators r-Stained Leave a and 4B) age Patterns (eason Water ation Visible of norphic Position ow Aquitard (D Neutral Test (I and Ant Mounds Heave Humm	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LRI nocks (D7)	re require MLRA 1,) nagery (C
Marks: DROLOG Wetland F Primary In Surfa High Satur Wate Sedir Algal Iron I Surfa K Inunc Span Field Obs Surface W Water tabl Saturation includes of	Hydrology Indicators: dicators (any one indicators (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (asely Vegetated Concaversations: Vater Present? Yes (A1) Present? Yes (A2) Present? Yes (A3)	Imagery ve Surfac	Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Present Recent Stunted Other (Be No X Depth No X Depth	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizosp ce of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rat	(C4) Plowed is (D1) (C5)	ng Roots (C3) Soils (C6) LRR A) Wetland H	Second Wate 44 Drain Dry-S Satur Geon Shalld FAC- Raise Frost	dary Indicators r-Stained Leave a and 4B) age Patterns (eason Water ation Visible of norphic Position ow Aquitard (D Neutral Test (I and Ant Mounds Heave Humm	s (2 or mor ves (B9) (I (B10) Table (C2 on Aerial In on (D2) D3) D5) s (D6) (LRI nocks (D7)	re require MLRA 1,) nagery (C

Project/Site: Plas Ne	ewydd Farm		City/County:	: Clark Cour	nty		Sampling D	ate:	11/18/2015
Applicant/Owner: Plas Ne	ewydd Farm				State	: WA	Sampling P	oint:	10
Investigator(s): T. Stou	ıt, K. Biafora		Section	n, Township	o, Range: <u>S12,</u>	T4N, R1W			
Landform (hillslope, terrace	e, etc.): Hillslope		_ Local re	elief (concav	e, convex, none): concave		Slope (%):	3-5%
Subregion (LRR): Northw	est Forests and Coast (LRR A	<u>\)</u> Lat:	45.840454°)	Lon	g: <u>122.754285</u>	0	Datum:	: WGS 84
Soil Map Unit Name:	Olympic very stony clay loam				NWI C	Classification:	none		
Are climatic / hydrologic co	nditions on the site typical for	this time of y	/ear?	Yes 2			(If no, explain		•
	, Soil, or Hydrology		-	/ disturbed?		Circumstance			_No
	, Soil, or Hydrology NGS - Attach site map		naturally pros			explain any ans			
Hydrophytic Vegetation Pre	esent? Yes N	o X							
Hydric Soil Present?		o X		ampled Are	729	s	No X		
Wetland Hydrology Presen		o X	within a	a Wetland?					
Remarks:									
VEGETATION		Absolute	Dominant	Indicator	Dominance To	est workshee			
Tree Stratum (Use scient 1.	tific names.)	% Cover	Species?	Status?	Number of Doi That Are OBL,	•		0	(A)
2.					Total Number	of Dominant		U	_(A)
3.					Species Acros			3	(B)
4.					Percent of Dor	minant Specie		<u> </u>	_(5)
	Total Cover	: 0		,	That Are OBL,	•		0%	_(A/B)
Shrub Stratum					Prevalence In	dex Workshe	et:		
Symphoricarpos albus		80	Υ	FACU	Total % C			iply by:	
Rubus armeniacus		45	Υ	FACU	OBL species		x1 =	0	_
3. Spiraea douglasii		5		FACW	FACW species	s	x2 =	0	<u></u>
4			-		FAC species		x3 =	0	_
5					FACU species	i:	x4 =	0	_
	Total Cover	: 130			UPL species		x5 =	0	_
Herb Stratum					Column Totals		(A)	0	_(B)
Hypericum perforatum		5	Y	FACU	Prevalence I	Index = B/A = _	#DIV	/0!	_
2.					.				
					Hydrophytic \	•			
4 5.				. ——		apid Test for H ominance Test	, , ,	getation	
					l ——	revalence Inde			
7					I ——	lorphological A		rovido cupo	orting
0						in Remarks or			orang
_				. ——	·	etland Non-Va	•		
						lematic Hydrop			n)
11.						omano riyarop	nyuo vogotati	on (Explain	•••
	Total Cover	: 5	-						
Woody Vine Stratum 1.					¹ Indicators of h be present, un				
2.					Hydrophytic				
	Total Cover	: 0		· 	Vegetation				
% Bare Groun	nd in Herb Stratum30_%	Cover of Bi	otic Crust	0	Present?	•	Yes	No X	
Remarks:					1				
	nd in Herb Stratum30_%	Cover of Bi	otic Crust	0	Present?	,	res	No X	

SOIL								Sampling P	oint:	10
Profile De	escription: (Describe	to the de	epth needed to do	cument th	e indicat	tor or co	onfirm the abse	ence of indicators.)	
Depth	Matrix		Re	edox Featu	ıres					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	<u> </u>	Remarks	
0-6	10 YR 3/3	100					SCL	<u> </u>		
6-12	10 YR 3/3	94	10 YR 3/4	5	С	M	SCL	<u> </u>		
			7.5 YR 4/6	1	С	M	_			
12-16	10 YR 4/2	93	10 YR 5/8	7	<u>C</u>	<u>M</u>	SCL			
								<u> </u>		
			-		-					
							_			
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix,	CS=Cove	red or Co	ated Sar	nd Grains. ² Lo	ocation: PL=Pore Li	ning, M=Matrix	
Hydric So	oil Indicators: (Applic	able to a	II LRRs, unless ot	herwise n	oted.)		Indicators	for Problematic H	ydric Soils ³ :	
Histo	osol (A1)		Sandy	Redox (S	5)			2 cm Muck (A	10)	
Histic	c Epipedon (A2)		Strippe	ed Matrix (S6)			Red Parent M	aterial (TF2)	
Black	K Histic (A3)		Loamy	Mucky Mi	neral (F1) (excep	t MLRA 1)	Other (Explain	n in Remarks)	
	ogen Sulfide (A4)			Gleyed M)				
	eted Below Dark Surfa	ce (A11)		ed Matrix (2			
	Dark Surface (A12)			Dark Surf				ators of hydrophytic	=	t
	ly Muck Mineral (S1)			ed Dark Su		7)		tland hydrology mus		
	ly gleyed Matrix (S4)		Redox	Depression	ns (F8)		u	nless disturbed or p	roblematic.	
Restrictiv	e Layer (if present):									
Type:	hoo):						lydric Soil Pre	cont?	Yes	No. V
Depth (inc Remarks:							Tyuric 3011 Fre			No X
HYDROLOG	SY									
Wetland F	Hydrology Indicators:	:								
	dicators (any one indic	ator is su						Secondary Indi		
	ace Water (A1)			Stained Le	•		ot .		d Leaves (B9) (MLRA 1, 2,
	Water Table (A2)			RA 1, 2, 4A	and 4B)		4A and 4B		
	ration (A3)			ust (B11)	-t (D4)	2)	•	Drainage Patt	, ,	••
	er Marks (B1)			c Invertebr					/ater Table (C2	
	ment Deposits (B2) Deposits (B3)			gen Sulfide			g Roots (C3)	Geomorphic F	ible on Aerial Ir	nagery (C9)
·	Mat or Crust (B4)			ice of Red		-	g Roots (C3)	Shallow Aquit	` '	
	Deposits (B5)			t Iron Redu			Soils (C6)	FAC-Neutral		
	ace Soil Cracks (B6)			d or Stress					ounds (D6) (LR	(R A)
	dation Visible on Aerial	Imagery		Explain in		, , ,			Hummocks (D7	
	sely Vegetated Conca		· · —	` '		,	•		•	,
	ervations:									
	ater Present? Yes			th (inches)						
	e Present? Yes			th (inches)			Watland Hy	rdrology Procent?	Voc	No. V
Saturation (includes of	Present? Yes capillary fringe)	s	No A Depi	th (inches)	•		wettand ny	/drology Present?	Yes	No <u>X</u>
	corded Data (stream g	jauge, mo	nitoring well, aerial	photos, pr	evious in	spection	s), if available:			
DawrI	_			-						
Remarks:										

Project/Site:	Plas Newydd Farm		City/County	Clark Cou	nty			Sampling	Date:	11/18/2015
Applicant/Owner:	Plas Newydd Farm					State:	WA	Sampling	Point:	11
Investigator(s):	T. Stout, K. Biafora		_	n, Township	_					
Landform (hillslope	e, terrace, etc.): Hillslope		_ Local re	elief (concav	e, convex	, none): <u> </u>	concave		Slope (%): <u>2-3%</u>
Subregion (LRR):	Northwest Forests and Coast (LRR	A) Lat:	45.840454	•			122.754285		Datur	n: WGS 84
Soil Map Unit Nam							ssification:			
Are climatic / hydro	ologic conditions on the site typical for			_		_		(If no, explai		
Are Vegetation	, Soil, or Hydrology					lormal Ci	rcumstance	s" Present?	Yes X	No
Are Vegetation	, Soil, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	lain any ans	wers in Rer	narks.)	
SUMMARY OF	FINDINGS – Attach site map	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featu	res, etc.	
Hydrophytic Veget	tation Present? Yes X	No								
Hydric Soil Presen		10		ampled Are a Wetland?		Yes	X	No		
Wetland Hydrolog	y Present? Yes X	1o	Within	a welland:		_		-		
Remarks:	· · · · · · · · · · · · · · · · · · ·									
VEGETATION										
Tana Otracticas (III		Absolute % Cover	Dominant Species?	Indicator Status?			t workshee			
1. Fraxinus latifo	se scientific names.)	15	·	FACW			ACW, or FA		2	(A)
2.	na		<u>'</u>	17.011	Total Nu	ımber of	Dominant			(A)
3.				·			All Strata:		3	(B)
4.					Porcont	of Domir	ant Species			(_)
	Total Cove	r: 15		-			ACW, or FA		100%	(A/B)
Charle Ctratum					Drevele		v Warkaha	-4.		
Shrub Stratum 1. Rosa nutkana		5	Υ	FAC		al % Cov	x Workshe		ultiply by:	
2.			<u>'</u>				ei oi.		0	_
3.				·		-	· · · · · · · · · · · · · · · · · · ·		0	_
4.	_			·	FAC spe	-	·		0	
5.								×4 =		_
	Total Cove	r: 5		·	UPL spe	_		x5 =	0	
Herb Stratum					Column	Totals:	0	(A)	0	(B)
1. Phalaris arund	dinacea	90	Υ	FACW		_	ex = B/A =		IV/0!	
2. Geranium moi	lle	2		NOL						
3			-		Hydrop	hytic Ve	getation Inc	licators:		
4						1 - Rapi	d Test for H	ydrophytic \	/egetation	
5					X		inance Tes			
6					#####		alence Inde			
7							-	daptation1 (porting
								on a separa		
				· ——				scular Plan		
						Problem	natic Hydrop	hytic Veget	ation' (Expl	ain)
11										
	Total Cove	r: <u>92</u>			1					
Woody Vine S	<u>stratum</u>							wetland hyd or problema		I
1 2.							o disturbed	or probletille	atio.	
<u> </u>	Total Cove	r: 0			Hydrop					
% Da		6 Cover of Bi		0	Vegetat Present		,	res X	No	
Remarks:			- Cito Orusi		1 1036111	••		<u>/</u>		
remains.										

SOIL Sampling Point: _____11

Depth	Matrix		R	edox Featu	ıres		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	10 YR 4/2	50	7.5 YR 3/4	15	С	М	SILT LOAM	<u></u>
			5 YR 3/3	5	С	М		
			10 YR 5/2	10	D	М		
	_		7.5 YR 4/6	20	С	M		
9-12	GLEY 1 3/N	70	10 YR 5/6	10	С	M	SILT LOAM	Л
			10 YR 4/2	20	D	M		
12-16	10 YR 4/2	85	10 YR 4/6	10	С	М	SCL	
	_		7.5 YR 4/4	5	С	M		<u> </u>
						ated San		ocation: PL=Pore Lining, M=Matrix.
-	oil Indicators: (App	Discable to a			-		indicators	for Problematic Hydric Soils ³ :
	osol (A1)			Redox (St			·	2 cm Muck (A10)
	c Epipedon (A2)			ed Matrix (\ /avaant	MI DA 4)	Red Parent Material (TF2)
	k Histic (A3)			/ Mucky Mi / Gleyed M	, ,		WILKA I)	Other (Explain in Remarks)
	ogen Sulfide (A4) leted Below Dark Su	rface (A11)		/ Gieyed ivi ted Matrix (,		
	k Dark Surface (A12	, ,		ted Matrix (Dark Surf			3 _{India}	ators of hydrophytic vegetation and
	dy Muck Mineral (S1			ted Dark Sun		7)		tland hydrology must be present,
	dy gleyed Matrix (S4)			Depression		')		nless disturbed or problematic.
	ve Layer (if present)		1\edox	СВергеззіс	7113 (1 0)			miess disturbed of problematic.
	e Layer (ii present)	,.						
Type: Depth (inc	shee).					Ц,	ydric Soil Pre	sent? Yes X No
emarks:								
Wetland H	Hydrology Indicato							
Wetland H Primary In	Hydrology Indicator adicators (any one indicators)							Secondary Indicators (2 or more require
Wetland I Primary In Surfa	Hydrology Indicator adicators (any one indicators (A1)		Water	-Stained Le			<u> </u>	Water-Stained Leaves (B9) (MLRA 1,
Wetland I Primary In Surfa High	Hydrology Indicator adicators (any one indicators (A1) ace Water (A1) Water Table (A2)		Water	RA 1, 2, 4A			h	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B)
Wetland H Primary In Surfa High X Satu	Hydrology Indicator adicators (any one in ace Water (A1) Water Table (A2) aration (A3)		Water MLI Salt C	RA 1, 2, 4 <i>A</i> rust (B11)	and 4B))		Water-Stained Leaves (B9) (MLRA 1, 24 and 4B) Drainage Patterns (B10)
Wetland F Primary In Surfa High X Satu Wate	Hydrology Indicator adicators (any one indicators (A1) ace Water (A1) Water Table (A2) aration (A3) er Marks (B1)		Water MLI Salt C Aquati	RA 1, 2, 4<i>A</i> rust (B11) ic Invertebr	and 4B)	3)	t .	Water-Stained Leaves (B9) (MLRA 1, 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland F Primary In Surfa High X Satu Wate Sedii	Hydrology Indicator adicators (any one inc ace Water (A1) Water Table (A2) aration (A3) er Marks (B1) ment Deposits (B2)		Water MLI Salt C Aquati Hydro	RA 1, 2, 4 <i>A</i> rust (B11) ic Invertebr gen Sulfide	and 4B) rates (B13	3) 1)		Water-Stained Leaves (B9) (MLRA 1, 2) 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Wetland I Primary In Surfa High X Satu Wate Sedii Drift	Hydrology Indicator adicators (any one incace Water (A1) Water Table (A2) tration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3)		Water MLI Salt C Aquati Hydro Oxidiz	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide red Rhizosp	and 4B) rates (B13 e Odor (Coheres alcoheres	3) 1) ong Living	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 24A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2)
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal	Hydrology Indicator adicators (any one incace Water (A1) Water Table (A2) Irration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4)		Water MLI Salt C Aquati Hydro Oxidiz Prese	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red	and 4B) rates (B13 rates (Cooperes alcoursed Iron) 1) ong Living ı (C4)	Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 24A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal	Hydrology Indicator adicators (any one incace Water (A1) Water Table (A2) Iration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)	dicator is su	Water MLi Salt C Aquati Hydro Oxidiz Prese Recer	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Red	and 4B) rates (B13 rates (Condition of the condition of t	3) 1) ong Living (C4) Plowed So	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland I Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I	Hydrology Indicator ace Water (A1) Water Table (A2) Tration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	dicator is su	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	ates (B13 e Odor (Control of the Control 1) ong Living I (C4) Plowed So s (D1) (LF	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal Iron Surfa	Hydrology Indicator adicators (any one indicators (any one indicators) ace Water (A1) Water Table (A2) Arration (A3) Ber Marks (B1) Iment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) Acce Soil Cracks (B6) Idation Visible on Aer	dicator is sur	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Red	ates (B13 e Odor (Control of the Control 1) ong Living I (C4) Plowed So s (D1) (LF	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)	
Wetland I Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I Surfa Inund Spar	Hydrology Indicator ace Water (A1) Water Table (A2) Iration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aer	dicator is sur	Water MLI Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Water	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu	ates (B13 e Odor (Control of the Control 1) ong Living I (C4) Plowed So s (D1) (LF	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)	
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I Surfa Inunc Spar	Hydrology Indicator indicators (any one incace Water (A1) Water Table (A2) Irration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) For See Soil Cracks (B6) dation Visible on Aerosely Vegetated Conservations:	dicator is sur	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8)	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) ong Living I (C4) Plowed So s (D1) (LF	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I Surfa Inund Spar Field Obs Surface W	Hydrology Indicator indicators (any one incace Water (A1) Water Table (A2) Irration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) For See Soil Cracks (B6) dation Visible on Aerosely Vegetated Conservations:	dicator is sur	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8)	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) ong Living i (C4) Plowed So s (D1) (LF	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 (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I Surfa Inunc Spar	Hydrology Indicator indicators (any one incace Water (A1) Water Table (A2) Irration (A3) For Marks (B1) Ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) For Acces Soil Cracks (B6) dation Visible on Accessive Vegetated Concessivater Present?	dicator is sur	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8) No X Dep Dep	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in	and 4B) rates (B13 rates (C) rates alc uced Iron uction in F sed Plants Remarks	3) 1) ong Living I (C4) Plowed So s (D1) (LF	pils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2) 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Primary In Surfa High X Satu Wate Sedii Drift Algal Iron Inunc Spar Field Obs Surface W Water tabl Saturation (includes of	Hydrology Indicator indicators (any one incace Water (A1) Water Table (A2) Iration (A3) For Marks (B1) Mat or Crust (B4) Deposits (B3) I Mat or Crust (B4) Deposits (B5) For Ace Soil Cracks (B6) dation Visible on Aer resely Vegetated Concervations: Vater Present?	dicator is sur rial Imagery cave Surface Yes X Yes X	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8) Dep De	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in th (inches) th (inches)	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) 2) 3) 1) 2) 3) 4) 4) 5) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7)	pils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2) 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Wetland F Primary In Surfa High X Satu Wate Sedii Drift Algal Iron I Surfa Inunc Spar Field Obs Surface W Water tabl Saturation (includes describe Re	Hydrology Indicator Indicators (any one incace Water (A1) I Water Table (A2) Irration (A3) Irration (A3) Irration (B1) Iment Deposits (B2) I Mat or Crust (B4) I Mat or Crust (B4) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B6) I Mat or Crust (B4) I Mat o	dicator is sur rial Imagery cave Surface Yes X Yes X	Water ML Salt C Aquati Hydro Oxidiz Prese Recer Stunte (B7) Other e (B8) Dep De	RA 1, 2, 4A rust (B11) ic Invertebr gen Sulfide ed Rhizosp nce of Red at Iron Redu ed or Stress (Explain in th (inches) th (inches)	and 4B) rates (B13 rates (C) oheres alc uced Iron uction in F sed Plants Remarks	3) 1) 2) 3) 1) 2) 3) 4) 4) 5) 6) 6) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 6) 7) 7) 7) 7) 8) 7) 7) 7) 8) 7) 7) 8) 7) 8) 7) 8) 7) 8) 7) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8) 8)	pils (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2) 4A and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site:	Plas Newydd Far	m		City/County	: Clark Cour	nty			Sampli	ing Date:	11/18/2015
Applicant/Owner:	Plas Newydd Far	m					State:	WA	Sampli	ing Point:	12
Investigator(s):	T. Stout, K. Biafo	ra		Sectio	n, Township	, Range:	S12, T4	4N, R1W			
Landform (hillslop	e, terrace, etc.):	Hillslope		_	elief (concav			concave		Slope (%): <u>3-5%</u>
Subregion (LRR):	Northwest Forest	s and Coast (LRR A) Lat:	45.840454	•		Long:	122.75428	5°	Datur	m: WGS 84
Soil Map Unit Nan		ery stony clay loam						ssification:			
Are climatic / hydr	-	n the site typical for t			_		-			plain in Remar	
Are Vegetation		, or Hydrology									No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	ded, exp	olain any an	swers in F	Remarks.)	
SUMMARY OF	FINDINGS - A	Attach site map s	showing	sampling	point loca	ations, t	ransec	cts, impo	rtant fea	ntures, etc.	
Hydrophytic Vege	tation Present?	YesNo	X	la de a O		_					
Hydric Soil Preser	nt?		X		ampled Are a Wetland?		Yes		No X		
Wetland Hydrolog	y Present?	Yes No	X	· · · · · · · · · · · · · · · · · · ·	a monana.						
Remarks:				I							
VEGETATION			Absoluto	Deminent	Indicator	Domina	noo Tos	st workshe			
Tree Stratum (U	se scientific names	s.)	Absolute % Cover	Dominant Species?	Indicator Status?	Number	of Domi	nant Specie	es		
1. Quercus garry	/ana		40	Υ	FACU	That Are	OBL, F	ACW, or FA	AC:	1	(A)
2								Dominant			
3						Species	Across A	All Strata:		5	(B)
4						Percent	of Domi	nant Specie	es		
		Total Cover:	40			That Are	OBL, F	ACW, or FA	AC:	20%	(A/B)
Shrub Stratum			40	V	FACU			ex Worksh		Maritimire la co	
 Amelanchier a Symphoricarp 			10 20		FACU	OBL spe	al % Co	ver or.		Multiply by: 0	_
3.	os aibus				17100		_			0	
4.					- ——	FAC spe				0	
5.							-				
		Total Cover:	30		-	UPL spe	-		x5 =	0	
Herb Stratum						Column	Totals:	0	(A)	0	(B)
1. Hypericum pe	rforatum		2		FACU		-	dex = B/A =		#DIV/0!	
2. Daucus carota	а		20	Υ	FACU						
3. Holcus lanatu	s		10		FAC	Hydrop	nytic Ve	getation In	dicators:		
4. Elymus glauci			5		FACU					ic Vegetation	
5. Agrostis stolo			50	<u>Y</u>	FAC			ninance Te			
6. Bromus diand			5		NOL	#####		valence Ind			
7. Stellaria medi			3		FACU			-		11 (Provide sur	oporting
8. Geranium diss			10		NOL NOL			Remarks o tland Non-V	•	arate sheet)	
 Geranium mod Polypodium ga 					NOL					ianເຮ getation¹ (Expl	oin)
10. <i>Polypodium g.</i>	<u>іусуппіга</u>						Problei	natic nyuru	priyuc veç	getation (⊏xpi	alli)
11.		Total Cover:	117								
Woody Vine S	Stratum	10101 00101.				1Indicate	ors of hyd	dric soil and	wetland h	hydrology mus	t
1.								ss disturbed			•
2.						Hydrop	hytic				
		Total Cover:	0			Vegetat	-				
% Ba	are Ground in Herb	Stratum 30 %	Cover of Bi	otic Crust	0	Present			Yes	No <u>X</u>	
Remarks:					 _	1			·		

	 Matrix		epth needed to doc	dox Featu						
Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	– Texture	3	Remarks	
)-5	10 YR 3/2	100	Color (moist)	/0	Туре	LUC	SCL	-	Remarks	
5-8	10 YR 4/2	90	10 YR 4/6	10	С	M	SCL			
<i>-</i> -0	10 11(4/2		10 11(4/0							
	Concentration, D=Dep					ated Sar				
-	oil Indicators: (Applic	able to a			-		Indicators	for Problematic Hy		
	osol (A1)			Redox (S				2 cm Muck (A1		
	c Epipedon (A2)			d Matrix (Red Parent Ma		
	k Histic (A3)			-			MLRA 1)	Other (Explain	ın Remarks)	
	rogen Sulfide (A4)	(8.4.4)		-	atrix (F2))				
	eted Below Dark Surfac	ce (A11)		d Matrix (31. 12	(()		
	k Dark Surface (A12)			Dark Surf		7 \		cators of hydrophytic	-	
	dy Muck Mineral (S1)				urface (F7	')		etland hydrology must	•	
	dy gleyed Matrix (S4)		Redox I	Depression	ons (F8)		l	unless disturbed or pr	obiematic.	
ype: <u>S</u> epth (inc	re Layer (if present): HOVEL REFUSAL-RO ches):	CK	8			н	lydric Soil Pre	esent?	Yes	No X
Type: <u>S</u> Depth (inc emarks:	HOVEL REFUSAL-ROPHes):	СК	8			H	lydric Soil Pre	esent?	Yes	No X
Type: <u>S</u> Depth (inc marks:	HOVEL REFUSAL-ROPHES):		8			H	lydric Soil Pre	esent?	Yes	No X
Type: Since the second	HOVEL REFUSAL-ROPHERS): SY Hydrology Indicators:					H	lydric Soil Pre			
Type: Since the second	HOVEL REFUSAL-ROPHERS: SY Hydrology Indicators: dicators (any one indicators)		fficient)	Stained Le	eaves (B9			Secondary Indic	ators (2 or mor	e required
Type: Since the second	HOVEL REFUSAL-ROPHERS): SY Hydrology Indicators:		fficient) Water-S		eaves (B9) (excep			ators (2 or mor Leaves (B9) (M	e required
Type: Since the second	HOVEL REFUSAL-ROUTHERS: BY Hydrology Indicators: dicators (any one indicators (A1)		fficient) Water-\$ MLR.		eaves (B9) (excep		Secondary Indic	ators (2 or mor Leaves (B9) (N	e requirec
Type: Since the second	HOVEL REFUSAL-ROPHES: Hydrology Indicators: dicators (any one indicators water (A1) Water Table (A2)		fficient) Water-S MLR Salt Cru	A 1, 2, 4 <i>A</i> ust (B11)) (excep		Secondary Indic Water-Stained 4A and 4B)	eators (2 or mor Leaves (B9) (N erns (B10)	e required
OPTION STATE OF THE PROPERTY O	HOVEL REFUSAL-ROUTHES: Hydrology Indicators: dicators (any one indicators (any one indicators (any one indicators)) Water Table (A2) ration (A3)		fficient) Water-S MLR Salt Cru Aquatic	A 1, 2, 4<i>A</i> ıst (B11) Invertebr	A and 4B)) (excep		Secondary Indic Water-Stained 4A and 4B) Drainage Patte	eators (2 or mor Leaves (B9) (Neerns (B10) eater Table (C2)	e required
Depth (incommarks: DROLOG Wetland I Primary In Surfa High Satu Wate Sedi	HOVEL REFUSAL-ROUTHERS: Hydrology Indicators: Idicators (any one indicators (A1) Water Table (A2) ration (A3) or Marks (B1)		fficient) — Water-S MLR. Salt Cru Aquatic Hydroge	A 1, 2, 4<i>f</i> ust (B11) Invertebr en Sulfide	and 4B) rates (B13	(excep		Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W	eators (2 or mor Leaves (B9) (N erns (B10) ater Table (C2) ble on Aerial Im	e required
Type: Side Depth (incommarks: TOROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift	HOVEL REFUSAL-ROUTHERS: Hydrology Indicators: Idicators (any one indicators (any one indicators (ary one indicators (are Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2)		fficient) Water-S MLR Salt Cru Aquatic Hydroge Oxidize	A 1, 2, 44 ust (B11) Invertebren Sulfide d Rhizosp	and 4B) rates (B13	(exception)))))))))))))))))))))))))))))))	yt .	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil	eators (2 or mor Leaves (B9) (Neater Table (C2) ble on Aerial Imposition (D2)	e required
OPROLOG Wetland I Primary In Satu Wate Sedi Drift Alga Iron	HOVEL REFUSAL-ROUTHERS: Hydrology Indicators: Idicators (any one indicators (A1) Water Table (A2) ration (A3) Per Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5)		fficient) Water-S MLR Salt Cru Aquatic Hydroge Oxidize Presend Recent	A 1, 2, 4A ust (B11) Invertebren Sulfide d Rhizospee of Red Iron Red	ates (B13 Odor (C oheres alc uced Iron uction in F	3) 1) ong Livin (C4) Plowed S	g Roots (C3)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po	eators (2 or mor Leaves (B9) (Noterns (B10) eater Table (C2) ble on Aerial Imposition (D2) ard (D3) est (D5)	e required ILRA 1, 2
**Type: Side Primary In Satu Wate Sedi Drift Alga Iron Surfa	HOVEL REFUSAL-ROUTHERS: Hydrology Indicators: Idicators (any one indicators (any one indicators (are Water (A1) Water Table (A2) ration (A3) er Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6)	ator is su	fficient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted	A 1, 2, 44 ust (B11) Invertebren Sulfider d Rhizospece of Redricon Redricon Stress	ates (B13 e Odor (C2 oheres alc uced Iron uction in F	s) (exception) (ex	g Roots (C3)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po Shallow Aquita FAC-Neutral To	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial Imposition (D2) and (D3) est (D5) ands (D6) (LRI	e required //LRA 1, 2) nagery (CS
Primary In Satu Wate Sedi Drift Alga Iron Surfa	HOVEL REFUSAL-ROOTHES: Hydrology Indicators: Idicators (any one indicators (any one indicators (any one indicators (any one indicators (B2) and (B3) Hydrology Indicators: Idicators (A1) Water Table (A2) Fration (A3) Fration (A3) Fration (A3) Fration (A3) Fration (B1) Fration (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) Frace Soil Cracks (B6) Idication Visible on Aerial	ator is su	fficient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted (B7) Other (B	A 1, 2, 44 ust (B11) Invertebren Sulfider d Rhizospece of Redricon Redricon Stress	ates (B13 Odor (C oheres alc uced Iron uction in F	s) (exception) (ex	g Roots (C3)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial Imposition (D2) and (D3) est (D5) ands (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Side Depth (incommarks: TOROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	HOVEL REFUSAL-ROPERING (SP) Hydrology Indicators: Idicators (any one indicators (any one indicators (A1)) Water Table (A2) ration (A3) Per Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (Sely Vegetated Concavers)	ator is su	fficient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presene Recent Stunted (B7) Other (B	A 1, 2, 44 ust (B11) Invertebren Sulfider d Rhizospece of Redricon Redricon Stress	ates (B13 e Odor (C2 oheres alc uced Iron uction in F	s) (exception) (ex	g Roots (C3)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po Shallow Aquita FAC-Neutral To	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial Imposition (D2) and (D3) est (D5) ands (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Side Depth (incommarks: TOROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar	HOVEL REFUSAL-ROPERING PROPERTY IN THE PROPERT	ator is su	fficient) Water-S MLR. Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted (B7) Other (Be	A 1, 2, 44 ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Redi or Stress Explain in	and 4B) rates (B13 rates (Control of the control of	s) (exception) (ex	g Roots (C3)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po Shallow Aquita FAC-Neutral To	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial Imposition (D2) and (D3) est (D5) ands (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Side Depth (incommarks: TOROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar Field Obs Surface W Water tab	HOVEL REFUSAL-ROPERING (SP) Hydrology Indicators: Idicators (any one indicators (any one indicators (A1)) Water Table (A2) ration (A3) Per Marks (B1) ment Deposits (B2) Deposits (B3) I Mat or Crust (B4) Deposits (B5) ace Soil Cracks (B6) dation Visible on Aerial (Sely Vegetated Concavers)	ator is su	### Mater-S #### MLR Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted Other (Be (B8) No X Depth No X Depth No X Depth De	A 1, 2, 44 ust (B11) Invertebren Sulfider d Rhizospece of Redricon Redricon Stress	and 4B) rates (B13 rates (Cobheres alcouced Iron uction in Fised Plants Remarks	s) (exception) (ex	g Roots (C3) oils (C6) RR A)	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po Shallow Aquita FAC-Neutral To	eators (2 or mor Leaves (B9) (Moreons (B10) ater Table (C2) ble on Aerial Imposition (D2) and (D3) est (D5) ands (D6) (LRI	e required //LRA 1, 2) nagery (CS
Type: Side Depth (incommarks: TOROLOG Wetland I Primary In Surfa High Satu Wate Sedi Drift Alga Iron Surfa Inune Spar Field Obs Surface W Water tab Saturation includes of	HOVEL REFUSAL-ROPE Heres: Hydrology Indicators: Idicators (any one indicators: Idicators (any one indicators: Idicators (Al) Water Table (A2) Indicators (B3) Indicators (B4) Indicators (B4) Indicators (B5) Indicators (B5) Indicators (B5) Indicators (B6) Indicators	ator is su	### Mater-S #### MLR Salt Cru Aquatic Hydroge Oxidize Presence Recent Stunted Other (Be (B8) No X Depth No X Depth No X Depth	A 1, 2, 44 ust (B11) Invertebren Sulfide d Rhizospece of Red Iron Redu or Stress Explain in in (inches) in (inches)	and 4B) rates (B13 rates (Control of the control of	e) (exception) (exception) (exception) (C4) (C4) (Plowed S (D1) (L	g Roots (C3) oils (C6) RR A) Wetland H	Secondary Indic Water-Stained 4A and 4B) Drainage Patte Dry-Season W Saturation Visil Geomorphic Po Shallow Aquita FAC-Neutral To Raised Ant Mo Frost-Heave H	eators (2 or mor Leaves (B9) (Noterns (B10) ater Table (C2) ble on Aerial Infosition (D2) ard (D3) est (D5) aunds (D6) (LRI ummocks (D7)	e required ILRA 1, 2

Project/Site:	Plas Newydd Farm		City/County	: Clark Cour	nty			Sampling	Date:	11/18/2015
Applicant/Owner:	Plas Newydd Farm					State:	WA	Sampling	Point:	13
Investigator(s):	T. Stout, K. Biafora		_	n, Township	_					
Landform (hillslope	· · · · · · · · · · · · · · · · · · ·		_ '	elief (concav		_				
	Northwest Forests and Coast (LRR	<u>4)</u> Lat:	45.840454			_		·	_ Datur	n: WGS 84
Soil Map Unit Nam							ssification:			
	ologic conditions on the site typical for			_		_		(If no, explai		
Are Vegetation	, Soil , or Hydrology									N0
Are Vegetation	, Soil, or Hydrology		naturally pr	obiematic?	(II nee	ueu, exp	nam any ans	wers in Ren	iaiks.)	
SUMMARY OF	FINDINGS - Attach site map	showing	sampling	point loca	ations, t	ransec	ts, impor	tant featu	res, etc.	
Hydrophytic Veget	ation Present? Yes X	lo	le the C		_					
Hydric Soil Presen	t? Yes X N	lo		ampled Are a Wetland?		Yes	Х	No		
Wetland Hydrolog	y Present? Yes X N	lo								
Remarks:			I							
VEGETATION										
Tree Stratum (U	se scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status?			t workshee			
1. Fraxinus latifo	,	75	Y	FACW	That Are	OBL, F	ACW, or FA	C:	2	(A)
2.					Total Nu	ımber of	Dominant			``
3.					Species	Across A	All Strata:		2	(B)
4					Percent	of Domir	nant Species			
	Total Cove	r: <u>75</u>			That Are	OBL, F	ACW, or FA	C:	100%	(A/B)
Shrub Stratum					Drovalo	nce Inde	x Workshe	ot·		
1.						al % Cov			ultiply by:	
2.								-	0	_
3.					FACW s	pecies		x2 =	0	_
4					FAC spe	ecies	:	x3 =	0	_
5						_		x4 =		_
	Total Cove	r: <u>0</u>			UPL spe	_		x5 =	0	
Herb Stratum	dinagas	0.5	V	FACW		_	0		0	(B)
Phalaris arund Lysimachia nu		<u>95</u>		FACW	Pieva	ence ma	lex = B/A = _	#01	IV/0!	_
3.	mmaana	<u> </u>	-		Hvdrop	hvtic Ve	getation Inc	licators:		
4.			-	-	, , , , ,		_	ydrophytic V	/egetation	
5.					X	2 - Dom	ninance Test	is >50%		
6.					#####	3 - Prev	alence Inde	x is ≤3.0 ¹		
							-	daptation1 (porting
								on a separa		
								scular Plant hytic Vegeta		nim\
10. 11.						Problem	nauc myurop	mylic vegela	ılıon (⊏xpia	aiii <i>)</i>
	Total Cove	r: 96		· ———						
Woody Vine S					1Indicate	ors of hyc	ric soil and	wetland hyd	roloav must	t
1.								or problema		
2.				-	Hydrop	hytic				
	Total Cove				Vegetat	ion				
	re Ground in Herb Stratum5 %	6 Cover of Bi	otic Crust	0	Present	?	<u> </u>	Yes X	No	
Remarks:										· <u> </u>

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth (inches) Color (moist) Color (moist) Type¹ Loc² Texture Remarks 0-3 10 YR 4/2 95 10 YR 4/6 5 С М SILT LOAM 3-9 10 YR 4/2 70 7.5 YR 4/4 15 С SILT LOAM M 15 C 7.5 YR 3/3 Μ 9-16 10 YR 5/2 90 10 C SILT LOAM 10 YR 4/4 M ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) 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) ³Indicators of hydrophytic vegetation and 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 X No Remarks: **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 Water-Stained Leaves (B9) (MLRA 1, 2, X High Water Table (A2) MLRA 1, 2, 4A and 4B) 4A and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) 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) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? No Depth (inches): Water table Present? Yes No Depth (inches): Wetland Hydrology Present? Saturation Present? Yes X Depth (inches): Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site:	Plas Newydd Farm			City/County:	: Clark Cour	nty		Sampling I	Date:	11/18/2015
Applicant/Owner:	Plas Newydd Farm						State: WA	Sampling I	Point:	14
Investigator(s):	T. Stout, K. Biafora			Section	n, Township	, Range:	S12, T4N, R1W			
Landform (hillslope	e, terrace, etc.):	Hillslope		Local re	elief (concav	e, convex	k, none): concave		_Slope (%):	3-5%
Subregion (LRR):	Northwest Forests a	ind Coast (LRR A)) Lat:	45.840454°			Long: 122.75428	5°	Datum	: WGS 84
Soil Map Unit Nam	ne: Sauvie silty of	clay loam					NWI Classification:	PFO1R		
Are climatic / hydro	ologic conditions on th	ne site typical for t	his time of y	/ear?	Yes 2	X	No	(If no, explain	in Remarks	s)
Are Vegetation	, Soil	, or Hydrology		significantly	disturbed?	Are "N	Normal Circumstance	es" Present?	Yes X	No
Are Vegetation	, Soil	, or Hydrology		naturally pr	oblematic?	(If nee	eded, explain any an	swers in Rem	arks.)	
SUMMARY OF	FINDINGS - Att	ach site map s	showing	sampling	point loca	ations,	transects, impo	rtant featur	es, etc.	
Hydrophytic Veget	ation Present?	YesNo		Is the Sa	ampled Are	а				
Hydric Soil Presen	t?	YesNo			a Wetland?	-	Yes	No X		
Wetland Hydrology	y Present?	YesNo	X							
Remarks:				I						
VEGETATION			Absolute	Dominant	Indicator	Domina	ance Test workshe	et:		
Tree Stratum (Us	se scientific names.)			Species?	Status?		r of Dominant Specie			
`	oo oolonaho hamoo.)				·	That Ar	e OBL, FACW, or FA	AC:	1	(A)
						Total N	umber of Dominant	-	-	_('')
2					· 	Species	Across All Strata:		4	(B)
4.						Percent	of Dominant Specie			_` ´
		Total Cover:	0				e OBL, FACW, or FA		25%	_(A/B)
Shrub Stratum						Prevale	ence Index Worksh	eet.		
Rubus armenia	acus		10	Υ	FACU		tal % Cover of:		tiply by:	
2. Symphoricarpo			20		FACU	OBL sp			0	=
3.						-	species		0	_
4.						FAC sp	ecies	x3 =	0	_
5.						FACU s	pecies	x4 =	0	<u>-</u> _
		Total Cover:	30			UPL sp	ecies	x5 =	0	_ _
Herb Stratum						Column	Totals: 0	(A)	0	_(B)
1. Cynosurus ecl	hinata		10		NOL	Preva	lence Index = B/A =	#DI	V/0!	_
2. Daucus carota	1		20		FACU					
Holcus lanatus	3		10		FAC	Hydrop	hytic Vegetation In			
4. Polypodium gl	ycyrrhiza		3		NOL		1 - Rapid Test for		egetation	
Agrostis stolor				Υ	FAC		2 - Dominance Tes			
6. Verbascum the	•		2		FACU	#####				
7. Stellaria media			2		FACU		4 - Morphological			orting
8. Geranium mol			45	Y	NOL		data in Remarks o	•	,	
9. Prunella vulga			1		FACU		5 - Wetland Non-V			
10. Galium trifidun	n		1		FACW	-	Problematic Hydro	phytic Vegeta	tion' (Explai	n)
11.		Total Cover:	144							
Woody Vine S	tratum					1Indicate	ors of hydric soil and	l wetland hydr	ology must	
1.	 -						ent, unless disturbed			
2.						المرادات	hytic			
		Total Cover:	0		· ———	Hydrop Vegeta	•			
% Ba	re Ground in Herb Str			otic Crust	0	Presen		Yes	No X	
Remarks:										

HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Mark 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Texture SCL Grains. ² Location: PL=Po Indicators for Problema 2 cm Mu Red Pare Red Pare Other (Ex	Remarks ore Lining, M=Matrix. tic Hydric Soils³:
Color (moist)	Grains. ² Location: PL=Pole Indicators for Problema 2 cm Muc Red Pare Other (Ex	ore Lining, M=Matrix. tic Hydric Soils³: ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
10 YR 3/2 100 10 YR 3/2 100 1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sance 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 Loamy Selected 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy emarks: YDROLOGY 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)	Grains. ² Location: PL=Pole Indicators for Problema 2 cm Muc Red Pare Other (Ex	ore Lining, M=Matrix. tic Hydric Soils³: ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand 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 Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Sandy Muck Mineral (S1) Depleted Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 emarks: YDROLOGY 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) Myder Marks (B1) Aquatic Invertebrates (B13)	Grains. ² Location: PL=Po Indicators for Problema 2 cm Mu Red Pare Red Pare Other (Extended) 3Indicators of hydrogogy wetland hydrology	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy emarks: YDROLOGY 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)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy Pemarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy Pemarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy Pemarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy 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)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy emarks: 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)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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 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) Sandy gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Hy emarks: YDROLOGY 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)	Indicators for Problema 2 cm Mu Red Pare ILRA 1) Other (Ex	tic Hydric Soils ³ : ck (A10) ent Material (TF2) explain in Remarks) ohytic vegetation and y must be present,
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Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): Emarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F2) Peleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Hy Hy Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Red Pare Other (Ex 3Indicators of hydror wetland hydrology	ent Material (TF2) xplain in Remarks) ohytic vegetation and y must be present,
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Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): emarks: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Heyer Aloo Depleted Dark Surface (F7) Redox Depressions (F8) Prepleted Matrix (F3) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Dark Surface (F6) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Matrix (F3) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surface (F6) Redox Dark Surface (F7) Redox Dark Surf	wetland hydrology	y must be present,
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Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 emarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13)	wetland hydrology	y must be present,
Sandy gleyed Matrix (S4) Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Water Stained Leaves (F8) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)		
Restrictive Layer (if present): Type: SHOVEL REFUSAL-ROCK Depth (inches): 5 emarks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Water-Stained Leaves (B9) (except High Water Table (A2) MLRA 1, 2, 4A and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13)	unless disturbed	d or problematic.
Type: SHOVEL REFUSAL-ROCK Depth (inches):		
Pemarks: Page		
Pemarks: Page		
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Wetland Hydrology Indicators: Water-Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Iric Soil Present?	Yes No X
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1)		
Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1)		
Primary Indicators (any one indicator is sufficient) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (A2) Water Marks (B1) Water Marks (B1) Water Marks (B1)		
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Marks (B1) Water Stained Leaves (B9) (except MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Socondan	/Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) MLRA 1, 2, 4A and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)		y Indicators (2 or more required)
Saturation (A3) Water Marks (B1) Salt Crust (B11) Aquatic Invertebrates (B13)		ained Leaves (B9) (MLRA 1, 2,
Water Marks (B1) Aquatic Invertebrates (B13)	4A an	,
 · · · · · · · · · · · · · · · · · ·		Patterns (B10)
0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		son Water Table (C2)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)		n Visible on Aerial Imagery (C9)
Drift Deposits (B3) Oxidized Rhizospheres along Living	· / ·	ohic Position (D2)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)		Aquitard (D3)
Iron Deposits (B5) Recent Iron Reduction in Plowed Sc		utral Test (D5)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LR		int Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Frost-He	ave 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): Depth (inches):		ent? Yes No X
(includes capillary fringe)	Wetland Hydrology Pres	CIII: 103110 <u>X</u>
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections	Wetland Hydrology Pres	
lemarks:		

Appendix A: Mosaic Data Forms

Plas Newydd Farm Wetland Delineation Report

PFO- Mosaic Plots		Transec																		ładdaw						27-Oct					
/egetation	Ind Status?	T1-P1	dominant?	T1-P2	dominant	T1-P3	dominant?	T1-P4	dominant	T1-P5	dominant	T2-P1	dominant	?T2-P2	dominant	T2-P3	dominant?	T2-P4	dominant?	T2-P5	dominant?	T3-P1	dominant?	T3-P2	dominant	T3-P3	dominant?	T3-P4	dominant?	T3-P5	domir
Tree Stratum (30' rad	ius plot)																														
Crataegus douglasii	FAC			20		10				10								2				15									
opulus balsamifera	FAC	30	Υ	60	Υ	40	Υ	30	Υ	20	Υ	30	Υ	25	Y	15		15		60	Υ	50	Υ	70	Υ	30	Υ	55	Υ	60	0 Y
huja plicata	FAC					5						25	Υ		i	35	Υ	40	Υ	5		15		25	Υ						
raxinus latifolia	FACW	60	Υ	15		40	Υ	35	Υ	55	Υ	25	Υ	50	Y	35	Υ	20	Υ	40	Υ	40	Υ	5		60	Υ	20	Υ	35	5 Y
ornus nuttallii	FACU			10																											
Tree total	s	90		105		95		65		85		80		80)	85		77		105		120		100		90		75		95	5
Shrub Stratum (5'rad	ius plot)																														
rataegus douglasii	FAC																					10									
onicera involucrata	FAC																					5				5		15		ŗ	5
opulus balsamifera	FAC											2		į.	Y													10			
osa nutkana	FAC									5		2																			Т
osa pisocarpa	FAC																									10					Т
nuja plicata	FAC											10	Υ																		Т
ornus sericea	FACW	10				5		25	Y	25	Y	2												5							Т
emleria cerasiformis	FACU																			5											Т
ubus armeniacus	FACU	20	Υ	35	Y	5		20	Y			15	Υ	15	Y	15	Y			10	Υ	3				15		80	Υ	25	5 Y
ymphoricarpos albus	FACU	25	Υ	25	Υ	40	Υ	5		15	Υ					10	Y	15	Υ	35	Υ	30	Υ	35	Υ	65	Υ			55	5 Y
ambucus racemosa	FACU																					5				5					T
Shrub tota	1	55		60		50		50		45		31		20		25		15		50		53		40		100		105		85	5
Herb Stratum (5' rad	ius plot)																														Т
Agrostis capillaris	FAC	40	Υ	20	Υ			20	Υ	5		20	Y	15	Y	2															1
ieum macrophyllum	FAC			1																											T
anunculus repens	FAC	1		2								5								1											T
rtica dioica	FAC	10		1																											T
ysimachia nummularia	FACW			1																5											T
halaris arundinacea	FACW	5		25	Υ	5		15	Υ	30	Υ	40	Υ	40	Y	5				15	Υ	25	Υ	55	Υ	30	Υ	10	Υ	35	5 '
eranium robertianum	FACU			5																											T
ubus ursinus	FACU	10		30	Υ	25	Υ	15	Υ	25	Υ	25	Y	20	Y	20	Y	10	Υ	20	Υ	65	Υ	80	Υ	70	Υ			15	5 Y
tellaria media	FACU	1												i -	i –																T
herb tota	1	67		85		30		50		60		90		75	i	27	Ì	10		41		90		135		100		10		50	٥
are ground	i e	15				60		25		20		30	t	40	_	80	1	80	i e						i				1		1

	w	etland?	w	etland?	wet	land?	we	etland?	v	vetland?	٠ ،	vetland?	w	vetland?		wetland?	١ ١	wetland?	wetla	ınd?	wetla	and?	wetla	and?	wetlar	nd?	we	tland?	w	vetland?
Species That Are OBL,																														
FACW, or FAC:	60% Y		50% N	V	50% N		71% Y		67%	Υ	75%	Υ	71% \	1	40%	N	50%	N	50% N		60% Y		60% Y		60% Y		75% Y		50% N	٧
Prevalence Index	2.91	Υ	3.26	N	3.11	N	2.79	Υ	2.63	Υ	2.87	Υ	2.69	Υ	3.04	N	3.05	N	3.05 N	1	3.14 N	N	3.18 N	N	3.22 N		3.26	N	3.11	N
Prevalence Index Worksheet:																														
Total % Cover of:																														
OBL species																														
FACW species	75	150	41	82	50	100	75	150	110	220	67	134	90	180	40	80	20	40	60	120	65	130	65	130	90 18	80	30	60	70	140
FAC species	81	243	104	312	55	165	50	150	40	120	94	282	50	150	52	156	57	171	66	198	95	285	95	285	45 13	35	80	240	65	195
FACU species	56	224	105	420	70	280	40	160	40	160	40	160	35	140	45	180	25	100	70	280	103	412	115	460	155 63	20	80	320	95	380
UPL species		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0
Column Totals:	212	617	250	814	175	545	165	460	190	500	201	576	175	470	137	416	102	311	196	598	263	827	275	875	290 93	35	190	620	230	715
Prevalence Index = B/A =		2.91		3.26		3.11		2.79		2.63		2.87		2.69		3.04		3.05	3	.05	3	3.14	3	.18	3.2	22		3.26		3.11

% Plots Meeting Dominance	60%
% Plots Meeting Prevalence	33%

PEM- Mosaic Plots		Transec	t 1 Plot	s					Names	: T Stout	/B Hado	laway					27-Oct-	-16					
Vegetation	Ind Status	T1-P1	dominant?	T1-P2	dominant?	T1-P3	dominant?	T1-P4	dominant?	T1-P5	dominant?	T1-P6	dominant?	T1-P7	dominant?	T1-P8	dominant?	T1-P9	dominant?	T1-P10	dominant?	T1-P11	dominant?
Herb Stratum (5' radius p	olot)																						
Agrostis capillaris	FAC	20				20		15		20		25		55	Υ	30	Υ	40	Υ	20		15	Y
Agrostis stolonifera	FAC																						
Alopecurus pratensis	FAC	60	Υ	50	Υ	65	Υ	75	Υ	50	Υ	30	Υ	40	Υ	45	Υ	50	Υ	15		10	
Cirsium arvense	FAC																						
Elymus repens	FAC																	2					
Festuca arundinacea	FAC																						
Festuca rubra	FAC	5		5		5		5				5		3		5		5		2			
Holcus lanatus	FAC																						
Lotus corniculatus	FAC																						
Plantago major	FAC											2										10	
Ranunculus repens	FAC			5		2																	
Rumex crispus	FAC	1				2				1		1		1						1			
Trifolium repens	FAC	10		15		30	Υ	5				10		10		15		3		60	Υ	45	Y
Cirsium vulgare	FACU																					3	
Dactylis glomerata	FACU	5						5															
Hypochaeris radicata	FACU	2		3				3		2		5				5		2					
Leucanthemum vulgare	FACU																						
Plantago lanceolata	FACU																			2		5	
Taraxacum officinale	FACU																					5	
Lysimachia nummularia	FACW																						
Phalaris arundinacea	FACW	30	Y	30	Y	15		15		30	Υ	50	Υ	15		20		10		5		5	
Bellis perennis	NOL																					2	
Cynosurus echinatatus	NOL																						
Geranium dissectum	NOL	1		5		10		3		10		3				5		3					
herb total		134		113		149		126		113		131		124		125		115		105		100	
bare ground																				10		15	

	1		vetland?		etland?		etland?		vetland?		vetland?		wetland?	-	etland?		etland?		etland?		vetland?		wetland?
		v	vetiana?	W	retiand?	W	etiana?	V	vetiand?	,	vetiand?		vetiand?	W	etiana?	v	/etiand?	V	/etiand?	V	vetiana?	V	vetiand?
Percent of Dominant Species That																							ļ
Are OBL, FACW, or FAC:		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y	' I	100% Y		100% Y		100% Y		100% Y		100% Y	.
Prevalence Index		2.84	Υ	2.85	Υ	3.03	N	2.99	Υ	2.93	Υ	2.70	Υ	2.88	Υ	2.96	Υ	2.98	Υ	2.97	Υ	3.12	N
Prevalence Index Worksheet:																							ļ
Total % Cover of:																							ļ
OBL species																							ļ
FACW species		30	60	30	60	15	30	15	30	30	60	50	100	15	30	20	40	10	20	5	10	5	10
FAC species		96	288	75	225	124	372	100	300	71	213	73	219	109	327	95	285	100	300	98	294	80	240
FACU species		7	28	3	12	0	0	8	32	2	8	5	20	0	0	5	20	2	8	2	8	13	52
UPL species		1	5	5	25	10	50	3	15	10	50	3	15	0	0	5	25	3	15	0	0	2	10
Column Totals:		134	381	113	322	149	452	126	377	113	331	131	354	124	357	125	370	115	343	105	312	100	312
Prevalence Index = B/A =			2.84		2.85		3.03		2.99		2.93		2.70		2.88		2.96		2.98		2.97		3.12

Transects	T1		T2		TOTAL
% Plots Meeting Dominance		100%		100%	100%
% Plots Meeting Prevalence		77%		90%	83%

												_									
PEM- Mosaic Plots			t 1 Plot	-						: T Stout							27-Oct-				
Vegetation	Ind Status	T1-P12	dominant?	T1-P13	dominant?	T1-P14	dominant?	T1-P15	dominant?	T1-P16	dominant?	T1-P17	dominant?	T1-P18	dominant?	T1-P19	dominant?	T1-P20	dominant?	T1-P21	dominant?
Herb Stratum (5' radius																					
Agrostis capillaris	FAC	20	Y	20		25	Υ	60	Y	65	Y	85	Y	80	Y	75	Y	90	Y	80	Y
Agrostis stolonifera	FAC																				
Alopecurus pratensis	FAC	10		5		45	Υ	40	Y	25	Y	15	i	20		10		5	i		<u> </u>
Cirsium arvense	FAC																				<u> </u>
Elymus repens	FAC																			2	
Festuca arundinacea	FAC									<u> </u>										10	<u> </u>
Festuca rubra	FAC	2		30	Υ	10		3		10		5	;	5				10)		
Holcus lanatus	FAC																			5	
Lotus corniculatus	FAC			5								1									
Plantago major	FAC	5																			
Ranunculus repens	FAC																				
Rumex crispus	FAC							1													
Trifolium repens	FAC	45	Υ	40	Υ			2													
Cirsium vulgare	FACU													3							
Dactylis glomerata	FACU			20																	
Hypochaeris radicata	FACU																				
Leucanthemum vulgare	FACU																				
Plantago lanceolata	FACU																				
Taraxacum officinale	FACU	1																			
Lysimachia nummularia	FACW																				
Phalaris arundinacea	FACW	2		10		45	Υ	15		20		15	5	10		30	Y	10		10	
Bellis perennis	NOL																				
Cynosurus echinatatus	NOL																				
Geranium dissectum	NOL																				
herb total		85		130		125		121		120		121		118		115		115	i	107	
bare ground		20																			1

	W	etland?	V	vetland?	w	etland?	W	vetland?	v	vetland?	v	vetland?	w	etland?	v	vetland?	v	vetland?	W	vetland?
Percent of Dominant Species That																				
Are OBL, FACW, or FAC:	100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y	
Prevalence Index	2.99	Υ	3.08	N	2.64	Υ	2.88	Υ	2.83	Υ	2.88	Υ	2.94	Υ	2.74	Υ	2.91	Υ	2.91	Υ
Prevalence Index Worksheet:																				
Total % Cover of:																				
OBL species																				
FACW species	2	4	10	20	45	90	15	30	20	40	15	30	10	20	30	60	10	20	10	20
FAC species	82	246	100	300	80	240	106	318	100	300	106	318	105	315	85	255	105	315	97	291
FACU species	1	4	20	80	0	0	0	0	0	0	0	0	3	12	0	0	0	0	0	0
UPL species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Column Totals:	85	254	130	400	125	330	121	348	120	340	121	348	118	347	115	315	115	335	107	311
Prevalence Index = B/A =		2.99		3.08		2.64		2.88		2.83		2.88		2.94		2.74		2.91		2.91

PEM- Mosaic Plots			Transa	t 1 Plot	_					Namas	T C+0+	/D Uoda	laa					27-Oct-	16		
Vegetation	Ind Status		dominant?			T1-P24	dominant?	T1-P25	dominant?	Names:	dominant?			T1-P28	dominant?	T1-P29	dominant?		-	T1-P31	dominant?
vegetation	ilia Status	11-122	dominant:	11-123	dominant:	12-12-4	dominant:	11-125	dominant:	11-120	uommant:	11-12/	dominant:	11-120	dominant:	11-125	dominant:	11-1 30	dominant:	11-131	uommant:
Agrostis capillaris	FAC	90	Y	85	Y	90	Y	65	Y	90	Υ	75	Y	65	Υ	50	Υ				
Agrostis stolonifera	FAC	ĺ																50	Υ	60	Y
Alopecurus pratensis	FAC					5						5		5							
Cirsium arvense	FAC	2		2		1		2		1											
Elymus repens	FAC																				
Festuca arundinacea	FAC			15				15		5		20		5				20		20	
Festuca rubra	FAC	10		5		10		20		10		15		5				10		5	
Holcus lanatus	FAC	5																			
Lotus corniculatus	FAC			2		2		2				2		5							
Plantago major	FAC							2						5		5				5	
Ranunculus repens	FAC																				
Rumex crispus	FAC					1						2				5					
Trifolium repens	FAC							2				5		10		40	Y	25	Υ	25	Y
Cirsium vulgare	FACU																				
Dactylis glomerata	FACU																				
Hypochaeris radicata	FACU																	1			
Leucanthemum vulgare	FACU																	3			
Plantago lanceolata	FACU											2									
Taraxacum officinale	FACU																				
Lysimachia nummularia	FACW															5					
Phalaris arundinacea	FACW	5		5				10		5				15							
Bellis perennis	NOL																				
Cynosurus echinatatus	NOL															5		10		10	
Geranium dissectum	NOL																				
herb total		112		114		109		118		111		126		115		110		119		125	
bare ground																					

	 			_								_				_				
	w	etland?	١	vetland?	v	vetland?	w	vetland?	١	vetland?	v	vetland?	w	etland?	v	vetland?	v	vetland?	W	vetland?
Percent of Dominant Species That																				
Are OBL, FACW, or FAC:	100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y		100% Y	
Prevalence Index	2.96	Υ	2.96	Υ	3.00	Υ	2.92	Υ	2.95	Υ	3.02	N	2.87	Υ	3.05	N	3.20	N	3.16	N
Prevalence Index Worksheet:																				
Total % Cover of:																				
OBL species																				
FACW species	5	10	5	10	0	0	10	20	5	10	0	0	15	30	5	10	0	0	0	0
FAC species	107	321	109	327	109	327	108	324	106	318	124	372	100	300	100	300	105	315	115	345
FACU species	0	0	0	0	0	0	0	0	0	0	2	8	0	0	0	0	4	16	0	0
UPL species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	25	10	50	10	50
Column Totals:	112	331	114	337	109	327	118	344	111	328	126	380	115	330	110	335	119	381	125	395
Prevalence Index = B/A =		2.96		2.96		3.00		2.92		2.95		3.02		2.87		3.05		3.20		3.16

PEM- Mosaic Plots		Transec	t 2 Plot	S							Names:	T Stout	/B Hadd	laway				27-Oct-	16				
/egetation	Ind Status	T2-P1	dominant?	T2-P2	dominant?	T2-P3	dominant?	T2-P4	dominant?	T2-P5	dominant?	T2-P6	dominant?	T2-P7	dominant?	T2-P8	dominant?	T2-P9	dominant?	T2-P10	dominant?	T2-P11	dominant
Herb Stratum (5' radius p	olot)																						L
Agrostis capillaris	FAC	70	Υ	65	Υ	65	Υ	90	Υ														
Agrostis stolonifera	FAC									50	Υ	65	Υ	50	Υ	65	Υ	45	Y	40	Υ	50	Υ
Alopecurus pratensis	FAC			5								5		20		30	Υ	45	Υ	40	Υ	40	Υ
Cirsium arvense	FAC			10				5				5		3		10		3		5		5	
Elymus repens	FAC																						
Festuca arundinacea	FAC	35	Υ	10		30	Υ	5		20													
estuca rubra	FAC																						
Holcus lanatus	FAC							10		35	Υ	25		15		10		10		5			
olium perenne	FAC									10													
otus corniculatus	FAC					5						3		2								2	
Plantago major	FAC			1		5																	
Ranunculus repens	FAC																						
Rumex crispus	FAC																					2	
Trifolium repens	FAC	5		5				5				5		5		3				20		5	
Cirsium vulgare	FACU																						
Dactylis glomerata	FACU																						
Daucus carota	FACU															3							
Hypochaeris radicata	FACU					5																	
eucanthemum vulgare	FACU																						
Plantago lanceolata	FACU																						
araxacum officinale	FACU																						
ysimachia nummularia	FACW																						
Phalaris arundinacea	FACW			15		5		3				50	Υ	10				5				5	
Bellis perennis	NOL																						
Cynosurus echinatatus	NOL																						
Geranium dissectum	NOL																					3	
herb total		110		111		115		118		115		158		105		121		108		110		112	

	w	etland?	v	vetland?	v	vetland?		wetland?		wetland?	,	wetland?	v	etland?	,	wetland?	١	wetland?		wetland?	v	wetland?
Percent of Dominant Species That																						
Are OBL, FACW, or FAC:	100% Y		100% Y		100% Y		100% \	1	100%	1	100% Y	'	100% Y		100% Y	′	100% Y	'	100%	Y	100% Y	
Prevalence Index	3.00	Υ	2.86	Υ	3.00	Υ	2.97	Υ	3.00	Υ	2.68	Υ	2.90	Υ	3.02	N	2.95	Υ	3.00	Υ	3.01	N
Prevalence Index Worksheet:																						
Total % Cover of:																						
OBL species																						
FACW species	0	0	15	30	5	10	3	6	0	0	50	100	10	20	0	0	5	10	0	0	5	10
FAC species	110	330	96	288	105	315	115	345	115	345	108	324	95	285	118	354	103	309	110	330	104	312
FACU species	0	0	0	0	5	20	0	0	0	0	0	0	0	0	3	12	0	0	0	0	0	0
UPL species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	15
Column Totals:	110	330	111	318	115	345	118	351	115	345	158	424	105	305	121	366	108	319	110	330	112	337
Prevalence Index = B/A =		3.00		2.86		3.00		2.97		3.00		2.68		2.90		3.02		2.95		3.00		3.01

PEM- Mosaic Plots			t 2 Plot	-							Names:		/B Hadd					27-Oct-	16		
Vegetation	Ind Status	T2-P12	dominant?	T2-P13	dominant?	T2-P14	dominant?	T2-P15	dominant?	T2-P16	dominant?	T2-P17	dominant?	T2-P18	dominant?	T2-P19	dominant?	T2-P20	dominant?	T2-P21	dominant
Herb Stratum (5' radius	olot)																				
Agrostis capillaris	FAC																				
Agrostis stolonifera	FAC	30	Υ	30	Υ	35	Υ	40	Υ	65	Υ	60	Υ	45	Υ	65	Υ	50	Υ	65	Y
Alopecurus pratensis	FAC	65	Υ	60	Υ	40	Υ	45	Υ	40	Υ	40	Υ	45	Υ	35	Υ	25	Υ	30	Y
Cirsium arvense	FAC	5		2										2							
Elymus repens	FAC																				
Festuca arundinacea	FAC									10				5		1		5		1	
Festuca rubra	FAC	5				10		5						5							
Holcus lanatus	FAC	20		15		15		20		5								10		5	5
Lolium perenne	FAC											5									
Lotus corniculatus	FAC	2		2				2		1		5		1				5			
Plantago major	FAC																				
Ranunculus repens	FAC																				
Rumex crispus	FAC																				
Trifolium repens	FAC					5				5		5						10		2	2
Cirsium vulgare	FACU																				
Dactylis glomerata	FACU																				
Daucus carota	FACU							2													
Hypochaeris radicata	FACU																				
Leucanthemum vulgare	FACU																				
Plantago lanceolata	FACU																				
Taraxacum officinale	FACU																				
Lysimachia nummularia	FACW			1																	
Phalaris arundinacea	FACW	5		5		10		5		10		5		5		3		10		10)
Bellis perennis	NOL																				
Cynosurus echinatatus	NOL																				
Geranium dissectum	NOL							5													
herb total		132		115		115		124		136		120		108		104		115		113	
bare ground		20																			

		wetland?		wetland?	V	wetland?	١	wetland?	١	vetland?		wetland?	V	vetland?	١	vetland?	١	vetland?	W	vetland?
Percent of Dominant Species That																				
Are OBL, FACW, or FAC:	100% \	,	100%	′	100% Y	'	100% Y	′	100% Y		100% \	1	100% Y		100% Y		100% Y		100% Y	
Prevalence Index	2.96	Υ	2.95	Υ	2.91	Υ	3.06	N	2.93	Υ	2.96	Υ	2.95	Υ	2.97	Υ	2.91	Υ	2.91	Υ
Prevalence Index Worksheet:																				
Total % Cover of:																				
OBL species																				
FACW species	5	10	6	12	10	20	5	10	10	20	5	10	5	10	3	6	10	20	10	20
FAC species	127	381	109	327	105	315	112	336	126	378	115	345	103	309	101	303	105	315	103	309
FACU species	0	0	0	0	0	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
UPL species	0	0	0	0	0	0	5	25	0	0	0	0	0	0	0	0	0	0	0	0
Column Totals:	132	391	115	339	115	335	124	379	136	398	120	355	108	319	104	309	115	335	113	329
Prevalence Index = B/A =		2.96		2.95		2.91		3.06		2.93		2.96		2.95		2.97		2.91		2.91

Appendix B: Ecology Rating System Data Forms

RATING SUMMARY – Western Washington

Name of wetland (or ID #): <u>1a</u>	Date of site visit: May 2014
Rated by <u>B. Haddaway</u>	Trained by Ecology? Yes_X_No Date of training 2004 committee
HGM Class Used for Rating Riverine	Unit has multiple HGM classes?Y XN
NOTE: Form is not complete without Source of base aerial photo/ma	put the figures requested. (figures can be combined) p_2013 NAIP, USDA
OVERALL WETLAND CATEGORY <u>I</u>	(based on functions X _ or special characteristics X _)

1. Category of wetland based on FUNCTIONS

FUNCTION		mprov ater Q	ving uality	Н	ydrolo	ogic		Habitat		
		Cir	cle the	ap	propr	iate	rati	ngs		
Site Potential	Н	М	L	Н	M	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	М	L	
Value	H	М	L	H	M	L	H	М	L	TOTAL
Score Based on Ratings		9			6			9		24

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L5 = M,M,L4 = M,L,L3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CAT	EGORY
Estuarine	I	II
Wetland with high conservation value		I
Bog		I
Mature Forest		I
Old Growth Forest		I
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly (Western Washington).

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1-1
Hydroperiods	H 1.2	1-1
Ponded depressions	R 1.1	1-1
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	1-1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	1-1
Width of unit vs. width of stream (can be added to another figure)	R 4.1	1-2
Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat	H 2.1, H2.2	1-2
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	4
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	4

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of 150 ft buffer (can be added to another figure)	L 2.2	
Polygon of area 1km from wetland edge (Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat)		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat)	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S 3.1, S 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	\$ 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7 the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

- **1.** Are the water levels in the entire unit usually controlled by tides except during floods? **NO** go to 2 **YES** the wetland class is **Tidal Fringe** go to 1.1
 - **1.1** Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - YES Freshwater Tidal Fringe NO Saltwater Tidal Fringe (Estuarine)
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine
 wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This
 method cannot be used to score functions for estuarine wetlands.
- **2.** The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 YES – The wetland class is Flats If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

- **3.** Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 acres (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO – go to 4 YES – The wetland class is **Lake-fringe** (Lacustrine Fringe)

- **4.** Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (slope can be very gradual),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ___The water leaves the wetland without being impounded?

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- **5.** Does the entire wetland unit **meet all** of the following criteria?
 - X The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river
 - \underline{X} The overbank flooding occurs at least once every two years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes Within the Wetland Unit	HGM Class to	
Being Rated	Use in Rating	
Slope + Riverine	Riverine	
Slope + Depressional	Depressional	
Slope + Lake-fringe	Lake-fringe	
Depressional + Riverine along stream	Depressional	
within boundary of depression		
Depressional + Lake-fringe	Depressional	
Riverine + Lake-fringe	Riverine	
Salt Water Tidal Fringe and any other	Treat as	
class of freshwater wetland	ESTUARINE	

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

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RIVERINE AND FRESHWATER TIDAL FRINGE W	ETLANDS	
Water Quality Functions - Indicators that site functions to imp	rove water quality	
R 1. Does the wetland unit have the potential to improve water quality?		
R 1.1 Area of surface depressions within the riverine wetland that can trap sediments during	a flooding event:	
Depressions cover >3/4 area of wetland	points = 8	
Depressions cover > 1/2 area of wetland	points = 4	
Depressions present but cover < 1/2 area of wetland	points = 2	4
No depressions present	points = 0	
R 1.2 Structure of plants in the unit (areas with >90% cover at person height, not Cowardin cl	asses)	
Trees or shrubs > 2/3 area of the unit	points = 8	
Trees or shrubs > 1/3 area of the unit	points = 6	
Herbaceous plants (> 6" high) > 2/3 area of unit	points = 6	
Herbaceous plants (> 6" high) > 1/3 area of unit	points = 3	8
Trees, shrubs, and ungrazed herbaceous < 1/3 area of unit	points = 0	
Total for R 1 Add the points in the boxes above		12

Rating of Site Potential If score is: 12-16=H 6-11=M 0-5=L Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function at the	site?	
R 2.1 Is the unit within an incorporated city or within its UGA?	Yes = 2 No = 0	0
R. 2.2 Does the contributing basin include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have within the last 5 years?	ve been clearcut Yes = 1 No = 0	1
R 2.4 Is > 10% of the buffer within 150 ft of wetland unit in land uses that generate pollutants	Yes = 1 No = 0	1
R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in questic Other sources	ons R 2.1 – R 2.4 Yes = 1 No = 0	0
Total for R 2 Add the points in the	ie boxes above	3

Rating of Landscape Potential If score is: 3 - 6 = H 1 or 2 = M 0 = L Record the rating on the first page

R 3.0 Is the water quality improvement provided by the site valuable to society?	-
R 3.1 Is the unit along a stream or river that is on the 303(d) list or on a tributary that drains to one within one mile? Yes = 1 No = 0	1
R 3.2 Does the river or stream have TMDL limits for nutrients, toxics, or pathogens anywhere downstream? Yes = 1 No = 0	1
R 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the drainage in which unit is found) Yes = 2 No = 0	2
Total for R 3 Add the points in the boxes above	4

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page

Plants do not meet above criteria

Total for R 4

RIVERINE AND FRESHWATER TIDAL FRINGE		2
Hydrologic Functions - Indicators that site functions to reduce fl	ooding and stream erosion	l
R 4.0 Does the wetland unit have the potential to reduce flooding and erosion?		
R 4.1 Characteristics of the overbank storage the unit provides: Estimate the average width of the wetland unit perpendicular to the direction of the flostream or river channel (distance between banks). Calculate the ratio: (average width stream between banks). If the ratio is more than 20 If the ratio is between 10 – 20	-	
If the ratio is between 5 - <10	points = 4	
If the ratio is between 1 - <5	points = 2	1
If the ratio is < 1	points = 1	
R 4.2 Characteristics of plants that slow down water velocities during floods: <i>Treat large shrub</i> ". Choose the points appropriate for the best description (polygons need to he height. These are <u>NOT Cowardin</u> classes):		
Forest or shrub for >1/3 area OR herbaceous plants > 2/3 area	points = 7	
Forest or shrub for > 1/10 area OR herbaceous plants > 1/3 area	points = 4	7

Add the points in the boxes above Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page

R 5.0 Does the landscape have the potential to support the hydrologic functions at the site?			
R5.1 Is the stream/river adjaces	nt to the unit downcut?	Yes = 0 No = 1	0
R 5.2 Does the contributing bas	in include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3 Is the upgradient stream of	or river controlled by dams?	Yes = 0 No = 1	0
Total for R 5	Add the points in the boxes abo	ove	1

Rating of Landscape Potential If score is: 3 = H 2 = M 0 = LRecord the rating on the first page

R 6.0 Are the hydrologic f	unctions provided by the site valuable to society?		
R 6.1 Distance to the neares	t areas downstream that have flooding problems?		
	Choose the description that best fits the site.		
resources (e.g., salmon	ms are in a sub-basin further down-gradient.	ged human or natural points = 2 points = 1 points = 0	2
R 6.2 Has the site been ident	ified as important for flood storage or flood conveyance in a re Yes	egional flood control plan? s = 2 No = 0	0
Total for R 6	Add the points in the boxes above		2

Rating of Value If score is: 2-4=H1 = M 0 = LRecord the rating on the first page

points = 0

8

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat. H 1. Does the wetland unit have the potential to provide habitat for many species? H 1.1 Structure of plant community – indicators are Cowardin classes and layers in forest. Check the Cowardin plant classes in unit – Polygons for each class must total ¼ acre, or more than 10% of the unit if it is smaller than 2.5 acres. Add the number of structures checked ___Aquatic bed 4 structures or more points = 4 X Emergent plants points = 2 3 structures X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures points = 1 X Forested (areas where trees have > 30% cover) 1 structure points = 0 If the unit has a forested class check if: X The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 4 that each cover 20% within the forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count (see text for descriptions of hydroperiods). X Permanently flooded or inundated 4 or more types present points = 3 X Seasonally flooded or inundated 3 types present points = 2X Occasionally flooded or inundated 2 types present points = 1 Saturated only points = 01 type present X Permanently flowing stream or river in, or adjacent to, the wetland ___Seasonally flowing stream in, or adjacent to, the wetland Lake-fringe wetland = 2 points 3 Freshwater tidal wetland = 2 points H 1.3. Richness of Plant Species Count the number of plant species in the wetland unit that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 2 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion between Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. NOTE: If you have four or more classes or three plants classes and open water the rating is always "high." None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points 3

H 1.5. Special Habitat Features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points	
X Large, downed, woody debris within the unit (>4 inches diameter and 6 ft long).	
X Standing snags (diameter at the bottom > 4 inches) within the unit	
X Undercut banks are present for at least 6.6 ft (2m) and/or overhanging plants extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)	
X Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least ¼ acre of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated. (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	5
	17
H 1. TOTAL Score - potential for providing habitat	17

Rating of Site Potential: If score is 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0 Does the landscape have	the potential	to support habit	at at the site?		
H 2.1 Accessible habitat (include o	nly habitat that	directly abuts we	tland unit).		
Calculate: % undisturbed ha	bitat + [(% mod	erate and low inte	nsity land uses)/2] =	_	
If total accessible habitat is:	> 1/3 (33.3%)	of 1 km circle (~1	00 hectares or 250 acres)	points = 3	
	20 - 33% of 1	km circle		points = 2	
	10 - 19% of 1	km circle		points = 1	3
	<10% of 1 km	circle		points = 0	
H 2.2 Undisturbed habitat in 1 km	circle around u	nit.			
Undisturbed habi	tat > 50% of circ	cle		points = 3	
Undisturbed habi	tat 10 - 50% and	d in 1-3 patches		points = 2	
Undisturbed habi	tat 10 - 50% and	d > 3 patches		points = 1	2
Undisturbed habi	tat < 10% of circ	cle		points = 0	
H 2.3 Land use intensity in 1 km ci	rcle. If:				0
> 50% of circle is high intensi	ty land use	points = (- 2)	< =50% of circle is high into	ensity points = 0	
Total for H 2	Add the	points in the box	es above		5

Rating of Landscape Potential If score is:

4-6=H 1-3=M

< 1 = L

Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H3.1Does the site provides habitat for species valued in laws, regulations or policies? *(choose only the highest score)*Site meets ANY of the following criteria:

points = 2

- It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- It is a "priority area" for an individual WDFW species
- It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources
- It has 3 or more priority habitats within 100m (see next page)
- It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats within 100m (see next page)

points = 1

Site does not meet any of the criteria above

points = 0

Rating of Value If score is

2 = H 1 = M 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)
Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: This question is independent of the land use between the wetland unit and the priority habitat.</i>
Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report p. 152).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
<u>X</u> Old-growth/Mature forests: (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
<u>X</u> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
X Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 – see web link above).
<u>X</u> Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).
Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice or other geological formations and is large enough to contain a human.
Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
<u>X</u> Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed

elsewhere.

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
SC 1.0 Estuarine wetlands	
Does the wetland unit meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
 Vegetated, and 	
 With a salinity greater than 0.5 ppt. YES = Go to SC 1.1 NO not an estuarine wetland 	
SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural	
Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC	
332-30-151? YES = Category I NO go to SC 1.2	Cat. I
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?	
-	
YES = Category I NO = Category II	Cat. I
— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less	Cot II
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. II
— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
— The wetland has at least 2 of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands.	
SC 2.0 Wetlands with High Conservation Value (WHCV)	
SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High	
Conservation Value? YES - Go to SC 2.2 NO – Go to SC 2.3	Cat. I
SC 2.2 Is the wetland unit you are rating listed on the DNR database as having a High Conservation Value?	
YES = Category I NO = not a WHCV	
SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
YES – contact WNHP/DNR and go to SC 2.4 NO = not a WHCV	
SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on	
their web site? YES = Category I NO = not an WHCV	
SC 3.0 Bogs	
Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key</i>	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16	
inches or more of the first 32 inches of the soil profile?	
YES - go to Question SC 3.3 NO - go to Question SC 3.2	
SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks that are less than 16	
inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on	
top of a lake or pond? YES - go to Question SC 3.3 NO - Is not a bog	
SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a	
30% cover of plant species listed in Table 4?	
YES – Is a Category I BOG NO - go to Question SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the	
"bog" plant species are present in Table 4, the wetland is a bog.	
SC 3.4 Is an area with peats or mucks forested (> 30% cover) with Sitka Spruce, subalpine fir, western red	
cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, AND	
any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under	Cat. I
the canopy.	Cat. I
YES – Is a Category I BOG NO - Is not a bog	

Does the wetland unit have at least <u>1 contiguous acre</u> of fores	st that most one of those critoria for the	
Department of Fish and Wildlife's forests as priority habitats? wetland based on its functions.		
 Old-growth forests: (west of Cascade crest) Stands of at 	t least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 tr years of age OR have a diameter at breast height (dbh) o	rees/acre (20 trees/hectare) that are at least 200	
■ Mature forests: (west of the Cascade Crest) Stands when species that make up the canopy have an average diame		
YES = Category I	NO - not a forested wetland for this section	Cat. I
5.0 Wetlands in Coastal Lagoons	-d:	
Does the wetland meet all of the following criteria of a wetlar — The wetland lies in a depression adjacent to marine	_	
marine waters by sandbanks, gravel banks, shingle,		
The lagoon in which the wetland is located contains.		
ppt) during most of the year in at least a portion of bottom)		Cat. I
YES = Go to SC 5.1	NO- not a wetland in a coastal lagoon	Cat. II
SC 5.1 Does the wetland meets all of the following three con		
— The wetland is relatively undisturbed (has no diking		
less than 20% cover of aggressive, opportunistic pla — At least ¾ of the landward edge of the wetland has		
un-mowed grassland.	a 100 it builer of siliub, forest, of dif-grazed of	
 The wetland is larger than 1/10 acre (4350 square f 	feet)	
	S = Category I NO = Category II	
6.0 Interdunal Wetlands		
Is the wetland unit west of the 1889 line (also called the Wes		
YES - go to SC 6.1 If you answer yes you will still need to rate the wetland	NO - not an interdunal wetland for rating d based on its habitat functions.	
In practical terms that means the following geographic a		Cat I
Long Beach Peninsula- lands west of S		Cati
Grayland-Westport-lands west of SR 1		
Ocean Shores-Copalis- lands west of S		
SCC 1 is the westland one core or larger and course or 2 or 1	Ofortho habitat functions on the form (note: 1111)	Cat. II
SC 6.1 Is the wetland one acre or larger and scores an 8 or 9 or H,H,M for the three aspects of function)?		Cot III
		Cat. III
YES = Cat		Cat IV
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of		Cat. IV
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of YES = Cat SC 6.3 Is the unit between 0.1 and 1 acre, or is it in a mosaic	tegory II NO – go to SC 6.3 ic of wetlands that is between 0.1 and 1 acre?	Cat. IV
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of YES = Cat SC 6.3 Is the unit between 0.1 and 1 acre, or is it in a mosaic	tegory II NO – go to SC 6.3	Cat. IV

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland <u>1b</u>	Date of site visit: May 2014
Rated by <u>B. Haddaway</u>	Trained by Ecology? Yes_X_No Date of training 2004 committee
HGM Class Used for Rating Riverine	Unit has multiple HGM classes?Y XN
NOTE: Form is not complete witho Source of base aerial photo/map	out the figures requested. (figures can be combined) o 2013 NAIP, USDA
VERALL WETLAND CATEGORY 1	(based on functions X or special characteristics X)

1. Category of wetland based on FUNCTIONS

FUNCTION		mprov ater Q	ving uality	Н	ydrolo	ogic		Habit	at	
		Cir	cle the	ap	propr	iate	rati	ngs		
Site Potential	Н	М	L	Н	M	L	Н	M	L	
Landscape Potential	Н	М	L	H	М	L	H	М	L	
Value	H	М	L	H	М	L	H	М	L	TOTAL
Score Based on Ratings		9			8			8		25

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L7 = H, M, M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M,L,L3 = L.L.L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CAT	CATEGORY	
Estuarine	I	II	
Wetland with high conservation value		I	
Bog		I	
Mature Forest		I	
Old Growth Forest		I	
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above			

Maps and figures required to answer questions correctly (Western Washington).

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1-1
Hydroperiods	H 1.2	1-1
Ponded depressions	R 1.1	1-1
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	1-1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	1-1
Width of unit vs. width of stream (can be added to another figure)	R 4.1	1-2
Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat	H 2.1, H2.2	1-2
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	4
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	4

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of 150 ft buffer (can be added to another figure)	L 2.2	
Polygon of area 1km from wetland edge (Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat)		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat)	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S 3.1, S 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	\$ 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7 the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

- **1.** Are the water levels in the entire unit usually controlled by tides except during floods? **NO** go to 2 **YES** the wetland class is **Tidal Fringe** go to 1.1
 - **1.1** Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - YES Freshwater Tidal Fringe NO Saltwater Tidal Fringe (Estuarine)
 If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine
 wetlands. If it is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This
 method cannot be used to score functions for estuarine wetlands.
- **2.** The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 YES – The wetland class is Flats If your wetland can be classified as a "Flats" wetland, use the form for **Depressional**

- **3.** Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 acres (8 ha) in size:
 - At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO – go to 4 YES – The wetland class is **Lake-fringe** (Lacustrine Fringe)

- **4.** Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (slope can be very gradual),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ___The water leaves the wetland without being impounded?

NO - go to 5

wetlands.

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- **5.** Does the entire wetland unit **meet all** of the following criteria?
 - X The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river
 - X The overbank flooding occurs at least once every two years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes Within the Wetland Unit	HGM Class to
Being Rated	Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake-fringe	Depressional
Riverine + Lake-fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

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RIVERINE AND FRESHWATER TIDAL FRINGE W	ETLANDS	
Water Quality Functions - Indicators that site functions to imp	rove water quality	
R 1. Does the wetland unit have the potential to improve water quality?		
R 1.1 Area of surface depressions within the riverine wetland that can trap sediments during	a flooding event:	
Depressions cover >3/4 area of wetland	points = 8	
Depressions cover > 1/2 area of wetland	points = 4	
Depressions present but cover < 1/2 area of wetland	points = 2	8
No depressions present	points = 0	
R 1.2 Structure of plants in the unit (areas with >90% cover at person height, not Cowardin cl	lasses)	
Trees or shrubs > 2/3 area of the unit	points = 8	
Trees or shrubs > 1/3 area of the unit	points = 6	
Herbaceous plants (> 6" high) > 2/3 area of unit	points = 6	
Herbaceous plants (> 6" high) > 1/3 area of unit	points = 3	8
Trees, shrubs, and ungrazed herbaceous < 1/3 area of unit	points = 0	
Total for R 1 Add the points in the boxes above		16

Rating of Site Potential If score is: 12 – 16 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page

R 2.0 Does the landscape have the potential to support the water quality function at the	site?	
R 2.1 Is the unit within an incorporated city or within its UGA?	Yes = 2 No = 0	0
R. 2.2 Does the contributing basin include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3 Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have within the last 5 years?	ve been clearcut Yes = 1 No = 0	1
R 2.4 Is > 10% of the buffer within 150 ft of wetland unit in land uses that generate pollutants	Yes = 1 No = 0	1
R 2.5 Are there other sources of pollutants coming into the wetland that are not listed in questic Other sources	ns R 2.1 – R 2.4 Yes = 1 No = 0	0
Total for R 2 Add the points in the	e boxes above	3

Rating of Landscape Potential If score is: **3 - 6 = H 1 or 2 = M 0 = L** Record the rating on the first page

R 3.0 Is the water quality improvement provided by the site valuable to society?	•	
R 3.1 Is the unit along a stream or river that is on the 303(d) list or on a tributary that drains to one within one mile? Yes = 1 No = 0	1	
R 3.2 Does the river or stream have TMDL limits for nutrients, toxics, or pathogens anywhere downstream? Yes = 1 No = 0	1	
R 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the drainage in which unit is found) Yes = 2 No = 0		
Total for R 3 Add the points in the boxes above	4	

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page

Plants do not meet above criteria

Total for R 4

RIVERINE AND FRESHWATER TIDAL FRINGE N Hydrologic Functions - Indicators that site functions to reduce flo		n
R 4.0 Does the wetland unit have the potential to reduce flooding and erosion?	_	
R 4.1 Characteristics of the overbank storage the unit provides: Estimate the average width of the wetland unit perpendicular to the direction of the flo stream or river channel (distance between banks). Calculate the ratio: (average width stream between banks).	of unit)/(average width of	
If the ratio is more than 20 If the ratio is between 10 – 20 If the ratio is between 5 - <10	points = 9 points = 6 points = 4	
If the ratio is between 1 - <5 If the ratio is < 1	points = 2 points = 1	1
R 4.2 Characteristics of plants that slow down water velocities during floods: <i>Treat large v</i> shrub". Choose the points appropriate for the best description (polygons need to ha height. These are <u>NOT Cowardin</u> classes):	_	
Forest or shrub for >1/3 area OR herbaceous plants > 2/3 area Forest or shrub for > 1/10 area OR herbaceous plants > 1/3 area	points = 7 points = 4	7

Add the points in the boxes above Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page

R 5.0 Does the landscape have the potential to support the hydrologic functions at the site?				
R5.1 Is the stream/river adjacent to the unit downcut? Yes = 0 No = 1				
R 5.2 Does the contributing basin include a UGA or incorporated area? Yes = 1 No = 0				
R 5.3 Is the upgradient stream or river controlled by dams? Yes = 0 No = 1				
Total for R 5 Add the points in	the boxes above	3		

Rating of Landscape Potential Record the rating on the first page If score is: 3 = H 2 = M 0 = L

R 6.0 Are the hydrologic	functions provided by the site valuable to society?		
R 6.1 Distance to the neare	st areas downstream that have flooding problems?		
	Choose the description that best fits the site.		
resources (e.g., salmor • Surface flooding prob	ately down-gradient of site has flooding problems that has damag redds) ems are in a sub-basin further down-gradient. anywhere downstream.	ged human or natural points = 2 points = 1 points = 0	2
R 6.2 Has the site been ide	ntified as important for flood storage or flood conveyance in a re Yes	gional flood control plan? s = 2 No = 0	0
Total for R 6	Add the points in the boxes above		2

Rating of Value If score is: 2-4=H1 = M 0 = L Record the rating on the first page

points = 0

8

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat. H 1. Does the wetland unit have the potential to provide habitat for many species? H 1.1 Structure of plant community – indicators are Cowardin classes and layers in forest. Check the Cowardin plant classes in unit – Polygons for each class must total ¼ acre, or more than 10% of the unit if it is smaller than 2.5 acres. Add the number of structures checked ___Aquatic bed 4 structures or more points = 4 X Emergent plants points = 2 3 structures X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures points = 1 X Forested (areas where trees have > 30% cover) 1 structure points = 0 If the unit has a forested class check if: 2 The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count (see text for descriptions of hydroperiods). X Permanently flooded or inundated 4 or more types present points = 3 X Seasonally flooded or inundated 3 types present points = 2Occasionally flooded or inundated 2 types present points = 1 Saturated only points = 01 type present X Permanently flowing stream or river in, or adjacent to, the wetland ___Seasonally flowing stream in, or adjacent to, the wetland Lake-fringe wetland = 2 points 2 Freshwater tidal wetland = 2 points H 1.3. Richness of Plant Species Count the number of plant species in the wetland unit that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion between Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. NOTE: If you have four or more classes or three plants classes and open water the rating is always "high." None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points 3

H 1.5. Special Habitat Features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points	
X Large, downed, woody debris within the unit (>4 inches diameter and 6 ft long).	
Standing snags (diameter at the bottom > 4 inches) within the unit	
X Undercut banks are present for at least 6.6 ft (2m) and/or overhanging plants extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)	
X Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
 X At least ¼ acre of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated.(structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 	4
H 1. TOTAL Score - potential for providing habitat	12

Rating of Site Potential: If score is 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0 Does the landscape have	the potential	to support habit	at at the site?		
H 2.1 Accessible habitat (include o	only habitat tha	t directly abuts we	tland unit).		
Calculate: % undisturbed ha	abitat + [(% mod	lerate and low inte	ensity land uses)/2] =		
If total accessible habitat is:	> 1/3 (33.3%) of 1 km circle <i>(~1</i>	00 hectares or 250 acres)	points = 3	
	20 - 33% of :	1 km circle		points = 2	
	10 - 19% of	1 km circle		points = 1	3
	<10% of 1 kn	n circle		points = 0	
H 2.2 Undisturbed habitat in 1 km	circle around u	ınit.			
Undisturbed hab	itat > 50% of cir	cle		points = 3	
Undisturbed hab	itat 10 - 50% an	d in 1-3 patches		points = 2	
Undisturbed hab	itat 10 - 50% an	d > 3 patches		points = 1	2
Undisturbed hab	itat < 10% of cir	cle		points = 0	
H 2.3 Land use intensity in 1 km c	ircle. If:				0
> 50% of circle is high intens	ity land use	points = (- 2)	<=50% of circle is high intensit	y points = 0	
Total for H 2	Add th	e points in the box	es above		5

Rating of Landscape Potential If score is:

4-6=H 1-3=M

< 1 = L

Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H3.1Does the site provides habitat for species valued in laws, regulations or policies? *(choose only the highest score)*Site meets ANY of the following criteria:

points = 2

- It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- It is a "priority area" for an individual WDFW species
- It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources
- It has 3 or more priority habitats within 100m (see next page)
- It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats within 100m (see next page)

points = 1

Site does not meet any of the criteria above

points = 0

Rating of Value If score is

2 = H 1 = M 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

177 pp. http://waiw.wa.gov/publications/00103/waiw00103.pdf
Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: This question is independent of the land use between the wetland unit and the priority habitat.</i>
Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report p. 152).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
<u>X</u> Old-growth/Mature forests: (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
<u>X</u> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
X Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 – see web link above).
<u>X</u> Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).
Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the	Categor
SC 1.0 Estuarine wetlands	appropriate criteria are met.
Does the wetland unit meet the following criteria for Estuarine wetlands?	
The dominant water regime is tidal,	
Vegetated, and	
With a salinity greater than 0.5 ppt.YES = Go to SC 1.1	NO not an estuarine wetland
SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, N	
Area Preserve, State Park or Educational, Environmental, or Scientific	•
332-30-151? YES = Category I	NO go to SC 1.2
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of th	
YES = Category	cat. I
 The wetland is relatively undisturbed (has no diking, ditching, filling, or 	
than 10% cover of non-native plant species. (If non-native species	
— At least ¾ of the landward edge of the wetland has a 100 ft buffer of	shrub, forest, or un-grazed or un-
mowed grassland.	
— The wetland has at least 2 of the following features: tidal channels, do	epressions with open water, or
contiguous freshwater wetlands.	
SC 2.0 Wetlands with High Conservation Value (WHCV)	
SC 2.1 Has the Department of Natural Resources updated their web site to in	nclude the list of Wetlands with High
Conservation Value? YES - Go to SC 2	
SC 2.2 Is the wetland unit you are rating listed on the DNR database as havir	g a High Conservation Value?
YES = Category	I NO = not a WHCV
SC 2.3 Is the wetland unit being rated in a Section/Township/Range that con	tains a Natural Heritage wetland?
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetl	
YES – contact WNHP/DNR and go to	
SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with Hi	
their web site? YES = Category	NO = not an WHCV
SC 3.0 Bogs	
Does the wetland unit (or any part of the unit) meet both the criteria for so	
below. If you answer YES you will still need to rate the wetland based on	=
SC 3.1 Does an area within the wetland unit have organic soil horizons, e	ther peats or mucks, that compose 16
inches or more of the first 32 inches of the soil profile? YES - go to Question SC 3.3 NO - go	to Question SC 3.2
SC 3.2 Does an area within the wetland unit have organic soils, either pea	
inches deep over bedrock, or an impermeable hardpan such as clay o	
top of a lake or pond?	voicante usit, or that are mouting on
	ot a bog
SC 3.3 Does an area with peats or mucks have more than 70% cover of m	_
30% cover of plant species listed in Table 4?	, , , , , , , , , , , , , , , , , , , ,
	to Question SC 3.4
NOTE: If you are uncertain about the extent of mosses in the understo	
measuring the pH of the water that seeps into a hole dug at least 16"	
"bog" plant species are present in Table 4, the wetland is a bog.	
SC 3.4 Is an area with peats or mucks forested (> 30% cover) with Sitka S	
cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's	· ·
any of the species (or combination of species) listed in Table 4 provide	e more than 30% of the cover under Cat. I
the canopy.	at a has
YES – Is a Category I BOG NO - Is r	ot a bog

SC 4.0 Forested Wetlands			
Does the wetland unit have at least <u>1 contiguous acre</u> of forest Department of Fish and Wildlife's forests as priority habitats? wetland based on its functions.			
 Old-growth forests: (west of Cascade crest) Stands of at canopy with occasional small openings; with at least 8 tr years of age OR have a diameter at breast height (dbh) of 	ees/acre (20 trees/he	ectare) that are at least 200	
Mature forests: (west of the Cascade Crest) Stands wher species that make up the canopy have an average diameter.	_		
YES = Category I	NO - not a forest	ed wetland for this section	Cat. I
C 5.0 Wetlands in Coastal Lagoons			
Does the wetland meet all of the following criteria of a wetlar			
The wetland lies in a depression adjacent to marine marine waters by sandbanks, gravel banks, shingle.			
marine waters by sandbanks, gravel banks, shingle, — The lagoon in which the wetland is located contains			
ppt) during most of the year in at least a portion of bottom)		•	Cat. I
YES = Go to SC 5.1	NO- not a w	etland in a coastal lagoon	Cat. II
SC 5.1 Does the wetland meets all of the following three con			
 The wetland is relatively undisturbed (has no diking 			
less than 20% cover of aggressive, opportunistic pla	•		
— At least ¾ of the landward edge of the wetland has	a 100 ft buffer of shri	ub, forest, or un-grazed or	
un-mowed grassland. — The wetland is larger than 1/10 acre (4350 square f	ioot)		
	S = Category I	NO = Category II	
C 6.0 Interdunal Wetlands			
Is the wetland unit west of the 1889 line (also called the Wes	tern Boundary of Upla	and Ownership or WBUO)?	
YES - go to SC 6.1		unal wetland for rating	
If you answer yes you will still need to rate the wetland	d based on its habitat	functions.	
In practical terms that means the following geographic a	areas:		Cat I
Long Beach Peninsula- lands west of S			
 Grayland-Westport-lands west of SR 2 			
 Ocean Shores-Copalis- lands west of S 	R 115 and SR 109		
			Cat. II
SC 6.1 Is the wetland one acre or larger and scores an 8 or 9 or H,H,M for the three aspects of function)?			
YES = Cat	- ·	NO – go to SC 6.2	Cat. III Cat. IV
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of YES = Cat		ce acre or larger? NO – go to SC 6.3	Cat. IV
SC 6.3 Is the unit between 0.1 and 1 acre, or is it in a mosai		_	
YES = Cat		NO – Category IV	
Category of wetland based on Special Characteristics			Cat. I
If you answered NO for all types enter "Not Applicable" on Sun	nmary Form		

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 1-C	Date of site visit: <u>8/31/2015</u>	_
Rated by <u>K. Biafora; B. Haddaway</u>	Trained by Ecology? <u>X</u> YesNo Date of training <u>9/20</u>	<u>14</u>
HGM Class used for rating Riverine	Wetland has multiple HGM classes?Y XN	
NOTE: Form is not complete with Source of base aerial photo/m	out the figures requested (figures can be combined). ap NAIP 2009	
OVERALL WETLAND CATEGORY _	(based on functionsor special characteristics_X)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

X Category II – Total score = 20 - 22

Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality				Habitat					
					Circle	the ap	propr	iate ra	itings	
Site Potential	Н	M	L	Н	M	L	Н	M	L	
Landscape Potential	Н	M	L	Н	M	L	Н	М	L	
Value	H	M	L	H	М	L	H	М	L	TOTAL
Score Based on		7			7			8		22
Ratings										

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M, M, L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I	II	
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above			

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1-1
Hydroperiods	H 1.2	1-1
Ponded depressions	R 1.1	1-1
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	1-1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	1-1
Width of unit vs. width of stream (can be added to another figure)	R 4.1	1-2
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	1-2
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	4

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES - The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (*slope can be very gradual*),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - ___The water leaves the wetland **without being impounded**.

NO – go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ____The overbank flooding occurs at least once every 2 years.

NO – go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES - The wetland class is Depressional

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
R 1.0. Does the site have the potential to improve water quality?	
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:	
Depressions cover $>$ 3 / $_4$ area of wetland points = 8	
Depressions cover > ½ area of wetland points = 4	
Depressions present but cover < ½ area of wetland points = 2	2
No depressions present points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, not Cowardin classes)	
Trees or shrubs $> \frac{2}{3}$ area of the wetland points = 8	
Trees or shrubs $> \frac{1}{3}$ area of the wetland points = 6	
Herbaceous plants (> 6 in high) > 2 / ₃ area of the wetland points = 6	
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland points = 3	6
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland points = 0	
Total for R 1 Add the points in the boxes above	8
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the	he first page
R 2.0. Does the landscape have the potential to support the water quality function of the site?	
R 2.1. Is the wetland within an incorporated city or within its UGA? Yes = $2 \text{ No} = 0$	0
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area? Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years? Yes = 1 No = 0	1
R 2.4. Is $> 10\%$ of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources $_$ Yes = 1 No = 0	0
Total for R 2 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3-6 = H X 1 or 2 = M 0 = L Record the rating on to	he first page
R 3.0. Is the water quality improvement provided by the site valuable to society?	
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	
	1
Yes = 1 No = 0	
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	1
Yes = 1 No = 0	
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the drainage in which the unit is found) Yes = 2 No = 0	2
Total for R 3 Add the points in the boxes above	4

Rating of Value If score is: <u>X</u> **2-4 = H ___1 = M ___0 = L**

Record the rating on the first page

wedand name of number	
RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion	1
R 4.0. Does the site have the potential to reduce flooding and erosion?	
R 4.1. Characteristics of the overbank storage the wetland provides:	
Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the	
stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average	
width of stream between banks).	
If the ratio is more than 20 points = 9	
If the ratio is 10-20 points = 6	
If the ratio is 5-<10 points = 4	
If the ratio is 1-<5 points = 2	2
If the ratio is < 1 points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: <i>Treat large woody debris as forest or</i>	
shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person	
height. These are <u>NOT Cowardin</u> classes).	
Forest or shrub for $>^1/_3$ area OR emergent plants $>^2/_3$ area points = 7	_
Forest or shrub for $> \frac{1}{10}$ area OR emergent plants $> \frac{1}{3}$ area points = 4	7
Plants do not meet above criteria points = 0	
Total for R 4 Add the points in the boxes above	9
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the	ne first page
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
R 5.1. Is the stream or river adjacent to the wetland downcut? Yes = 0 No = 1	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area? Yes = 1 No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams? Yes = 0 No = 1	0
Total for R 5 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3 = H X 1 or 2 = M 0 = L Record the rating on the	ne first page
R 6.0. Are the hydrologic functions provided by the site valuable to society?	
R 6.1. Distance to the nearest areas downstream that have flooding problems?	
Choose the description that best fits the site.	
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to	
human or natural resources (e.g., houses or salmon redds) points = 2	
Surface flooding problems are in a sub-basin farther down-gradient points = 1	2
No flooding problems anywhere downstream points = 0	_
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0
Yes = 2 No = 0	J
Total for R 6 Add the points in the boxes above	2
Rating of Value If score is: X 2-4 = H 1 = M 0 = L Record the rating on the	<i>c.</i> .

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ___Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 X Emergent Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: __The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 _Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points 2 X Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points 1

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
\underline{X} Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least $\frac{1}{4}$ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	3
Total for H 1 Add the points in the boxes above	8
Rating of Site Potential If score is: 15-18 = H X 7-14 = M 0-6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit)	

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land uses)/2] 20 = 100 %	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	3
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat <u>55</u> + [(% moderate and low intensity land uses)/2]22 = <u>77</u> %	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	
Undisturbed habitat 10-50% and > 3 patches points = 1	3
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	0
≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	6

Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L

Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose of the site provide</i> habitat for species valued in laws, regulations, or policies?	nly the highest score
that applies to the wetland being rated.	
Site meets ANY of the following criteria:	points = 2
 It has 3 or more priority habitats within 100 m (see next page) 	
 It provides habitat for Threatened or Endangered species (any plant or animal on the 	state or federal lists)
 It is mapped as a location for an individual WDFW priority species 	
 It is a Wetland of High Conservation Value as determined by the Department of Natur 	ral Resources
 It has been categorized as an important habitat site in a local or regional comprehens 	ive plan, in a
Shoreline Master Plan, or in a watershed plan	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1
Site does not meet any of the criteria above	points = 0

Rating of Value If score is: X 2 = H ___1 = M ___0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	<u> </u>
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i>, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below.</i> If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No - Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	-
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. II
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	

Wetland name or number	
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RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 4	Date of site visit: <u>11/16/2015</u>
Rated by <u>K. Biafora; B. Haddaway</u>	_Trained by Ecology? <u>X</u> YesNo Date of training <u>9/2014</u>
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y XN
•	out the figures requested (figures can be combined).
Source of base aerial photo/ma	p <u>NAIP 2009</u>

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

Category II – Total score = 20 - 22

X Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION		mprov iter Q	ing uality	H	ydrolo	ogic		Habita	at	
		Circle the appropriate ratings								
Site Potential	Н	М	L	Н	M	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	М	L	
Value	H	М	L	H	М	L	Н	М	L	TOTAL
Score Based on Ratings		5			6			7		18

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M, M, L4 = M, L, L3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I	II	
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest		I	
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above			

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1-1
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1-1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	1-2
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website) S 3.1, S 3.2		4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	\$ 3.3	4

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES - The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (*slope can be very gradual*),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - The water leaves the wetland without being impounded.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.
 - ____The overbank flooding occurs at least once every 2 years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to improve water	quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for a 100 ft of horizontal distance)	every	
Slope is 1% or less poi	ints = 3	
Slope is > 1%-2%	ints = 2	
Slope is > 2%-5% poi	ints = 1	3
Slope is greater than 5% poi	ints = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3	No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:		
Choose the points appropriate for the description that best fits the plants in the wetland. Dense means	s you	
have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are than 6 in.	e higher	
Dense, uncut, herbaceous plants > 90% of the wetland area poi	ints = 6	
Dense, uncut, herbaceous plants > ½ of area poi	ints = 3	
Dense, woody, plants > ½ of area poi	ints = 2	
Dense, uncut, herbaceous plants > ¼ of area poi	ints = 1	2
Does not meet any of the criteria above for plants poi	ints = 0	
Total for S 1 Add the points in the boxes	above	5

Rating of Site Potential If score is: 12 = H 6-11 = M X 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	0
Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: ___1-2 = M X_0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the $303(d)$ list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	1
Total for S 3 Add the points in the boxes above	2

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	sion	
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > $^{1}/_{8}$ in), or dense enough, to remain erect during surface flows.		
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	1	
All other conditions points = 0		
Rating of Site Potential If score is: X 1 = M 0 = L Record the rating on	the first page	
S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = $1 \text{ No} = 0$	0	
Rating of Landscape Potential If score is: 1 = M X 0 = L Record the rating on	the first page	
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or		
natural resources (e.g., houses or salmon redds) points = 2		
Surface flooding problems are in a sub-basin farther down-gradient points = 1	2	
No flooding problems anywhere downstream points = 0		
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0	
Yes = 2 No = 0		

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

Add the points in the boxes above

NOTES and FIELD OBSERVATIONS:

Total for S 6

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ____Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 ____Emergent Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X __The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 _Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points 0 Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points 0

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. <i>The number of checks is the</i>	number of noints	
X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	. Humber of points.	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants exte	ends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m	n)	
Stable steep banks of fine material that might be used by beaver or muskrat for definition of the steep banks of fine material that might be used by beaver or muskrat for definition of the steep banks of fine material that might be used by beaver or muskrat for definition of the steep banks of fine material that might be used by beaver or muskrat for definition of the steep banks of the		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that hav where wood is exposed)	ve not yet weathered	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in a permanently or seasonally inundated (structures for egg-laying by amphibians)	areas that are	
X Invasive plants cover less than 25% of the wetland area in every stratum of plants	Isee H 1 1 for list of	2
strata)	(see ri 1.1 joi list oj	2
Total for H 1 Add the poi	ints in the boxes above	4
Rating of Site Potential If score is:15-18 = H7-14 = MX0-6 = L	Record the rating on t	he first page
H 2.0. Does the landscape have the potential to support the habitat functions of the	site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land us	ses)/2] <u>10</u> = 90	
If total accessible habitat is:	" '	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	3
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	·	
Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land	uses)/2]22 = 77 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches	points = 1	3
Undisturbed habitat < 10% of 1 km Polygon	points = 0	J
H 2.3. Land use intensity in 1 km Polygon: If	poto	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	U
	·	6
Total for H 2 Add the point Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L	ints in the boxes above Record the rating on the	6 e first paae
		, ,
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose that applies to the wetland being rated.</i>	e only the highest score	
Site meets ANY of the following criteria:	points = 2	
— It has 3 or more priority habitats within 100 m (see next page)	points – Z	
 It has 5 of more priority habitats within 100 in (see next page) It provides habitat for Threatened or Endangered species (any plant or animal on the second s	he state or federal lists)	
It is mapped as a location for an individual WDFW priority species	ne state of reactal lists)	
It is a Wetland of High Conservation Value as determined by the Department of Na	itural Resources	
It has been categorized as an important habitat site in a local or regional comprehence.		
Shoreline Master Plan, or in a watershed plan	snorve pian, in a	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: X 2 = H 1 = M 0 = L	Record the rating on t	he first paae

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Watland Time	Catagogg
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	6-4-1
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	Cut. I
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	
<u> </u>	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	-
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. II
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	

Wetland name or number	
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RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 5	Date of site visit: <u>11/16/2015</u>	
Rated by <u>K. Biafora; B. Haddaway</u>	_Trained by Ecology? <u>X</u> YesNo Date of training <u>9/2014</u>	
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y XN	
NOTE: Form is not complete without the figures requested (figures can be combined).		
Source of base aerial photo/map	p <u>NAIP 2009</u>	

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

Category II – Total score = 20 - 22

X Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION		nprov iter Q	ving uality	Н	ydrolo	ogic		Habita	at	
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	М	L	
Value	H	М	L	H	М	L	H	М	L	TOTAL
Score Based on		6			6			7		19
Ratings										

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M, M, L4 = M, L, L3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland of High Conservation Value		I
Bog		I
Mature Forest		I
Old Growth Forest		I
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1-1
Hydroperiods	H 1.2	1-1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1-1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	1-2
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES - The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (*slope can be very gradual*),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - The water leaves the wetland without being impounded.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - The overbank flooding occurs at least once every 2 years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to improve wa	ater quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation 100 ft of horizontal distance)	for every	
Slope is 1% or less	points = 3	
Slope is > 1%-2%	points = 2	
Slope is > 2%-5%	points = 1	3
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes	= 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:		
Choose the points appropriate for the description that best fits the plants in the wetland. Dense m	eans you	
have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plant	ts are higher	
than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > $\frac{1}{2}$ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	6
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the points in the b	oxes above	9

Rating of Site Potential If score is: 12 = H X 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	0
Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: ___1-2 = M X_0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the $303(d)$ list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	1
Total for S 3 Add the points in the boxes above	2

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	sion	
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > $^{1}/_{8}$ in), or dense enough, to remain erect during surface flows.		
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	1	
All other conditions points = 0		
Rating of Site Potential If score is: X 1 = M 0 = L Record the rating on	the first page	
S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = $1 \text{ No} = 0$	0	
Rating of Landscape Potential If score is: 1 = M X 0 = L Record the rating on	the first page	
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or		
natural resources (e.g., houses or salmon redds) points = 2		
Surface flooding problems are in a sub-basin farther down-gradient points = 1	2	
No flooding problems anywhere downstream points = 0		
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0	
Yes = 2 No = 0		

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

Add the points in the boxes above

NOTES and FIELD OBSERVATIONS:

Total for S 6

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ____Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: __The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 __Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points 0 Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points 1

H 1.5. Special habitat features:			
Check the habitat features that are present in the wetland. The number of checks is the number of points.			
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).			
Standing snags (dbh > 4 in) within the wetland			
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)			
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree			
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)			
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are			
permanently or seasonally inundated (structures for egg-laying by amphibians)			
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	0		
strata)			
Total for H 1 Add the points in the boxes above	3		
Rating of Site Potential If score is: 15-18 = H 7-14 = M X 0-6 = L Record the rating on	the first page		
H 2.0. Does the landscape have the potential to support the habitat functions of the site?			
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).			
Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land uses)/2] 10 = 90 %			
If total accessible habitat is:			
1			
20-33% of 1 km Polygon points = 2	2		
10-19% of 1 km Polygon points = 1	3		
< 10% of 1 km Polygon points = 0			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.			
Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land uses)/2]22 = 77 %			
Undisturbed habitat > 50% of Polygon points = 3			
Undisturbed habitat 10-50% and in 1-3 patches points = 2			
Undisturbed habitat 10-50% and > 3 patches points = 1			
Undisturbed habitat < 10% of 1 km Polygon points = 0			
H 2.3. Land use intensity in 1 km Polygon: If			
> 50% of 1 km Polygon is high intensity land use points = (- 2)	0		
≤ 50% of 1 km Polygon is high intensity points = 0			
Total for H 2 Add the points in the boxes above	6		
Rating of Landscape Potential If score is: X _ 4-6 = H1-3 = M< 1 = L Record the rating on the	he first page		
H 3.0. Is the habitat provided by the site valuable to society?			
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score			
that applies to the wetland being rated.			
Site meets ANY of the following criteria: points = 2			
 — It has 3 or more priority habitats within 100 m (see next page) 			
 It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) 			
— It is mapped as a location for an individual WDFW priority species			
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 			
 — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a 			
Shoreline Master Plan, or in a watershed plan			
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1			
Site does not meet any of the criteria above points = 0			
Rating of Value If score is: X 2 = H 1 = M 0 = L Record the rating on	the first nage		

Rating of Value If score is: X 2 = H 1 = M 0 = L

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Time	Catagory
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	
 5C 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. 	Cat. II
The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
6C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III
Yes = Category II No – Go to SC 6.3 C 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	cat. III
	Cat. IV

Wetland name or number	
	This page left blank intentionally

Legend

Study Area Boundary - 372.72 total acres



Water Howellia Occurrence



R 2.4 Habitat Buffer (150 ft.)



Rating Unit Boundaries



Palustrine Emergent, Temporarily Flooded (PEMA)



Palustrine Forested, Broad-Leaved Deciduous, Temporarily Flooded (PFO1A)



Palustrine Forested, Broad-Leaved Deciduous, Saturated (PFO1B)



Palustrine Emergent, Seasonally Flooded (PEMC)



Palustrine Emergent, Artificially Flooded, Diked/Impounded (PEMKh)



Palustrine Forested, Broad-Leaved Deciduous, Seasonally Flooded (PFO1C)



Palustrine Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded (PSS1C)



Riverine Non-Persistent Emergent,
Seasonally-Tidally Flooded (R1EMR)



Palustrine Unconsolidated Bottom, Artificially Flooded, Diked/Impounded (PUBKh)



Riverine-Tidal Unconsolidated Bottom, Permanently-Tidally Flooded (R1UBV; Aquatic Habitat)



Date: 5/6/2016

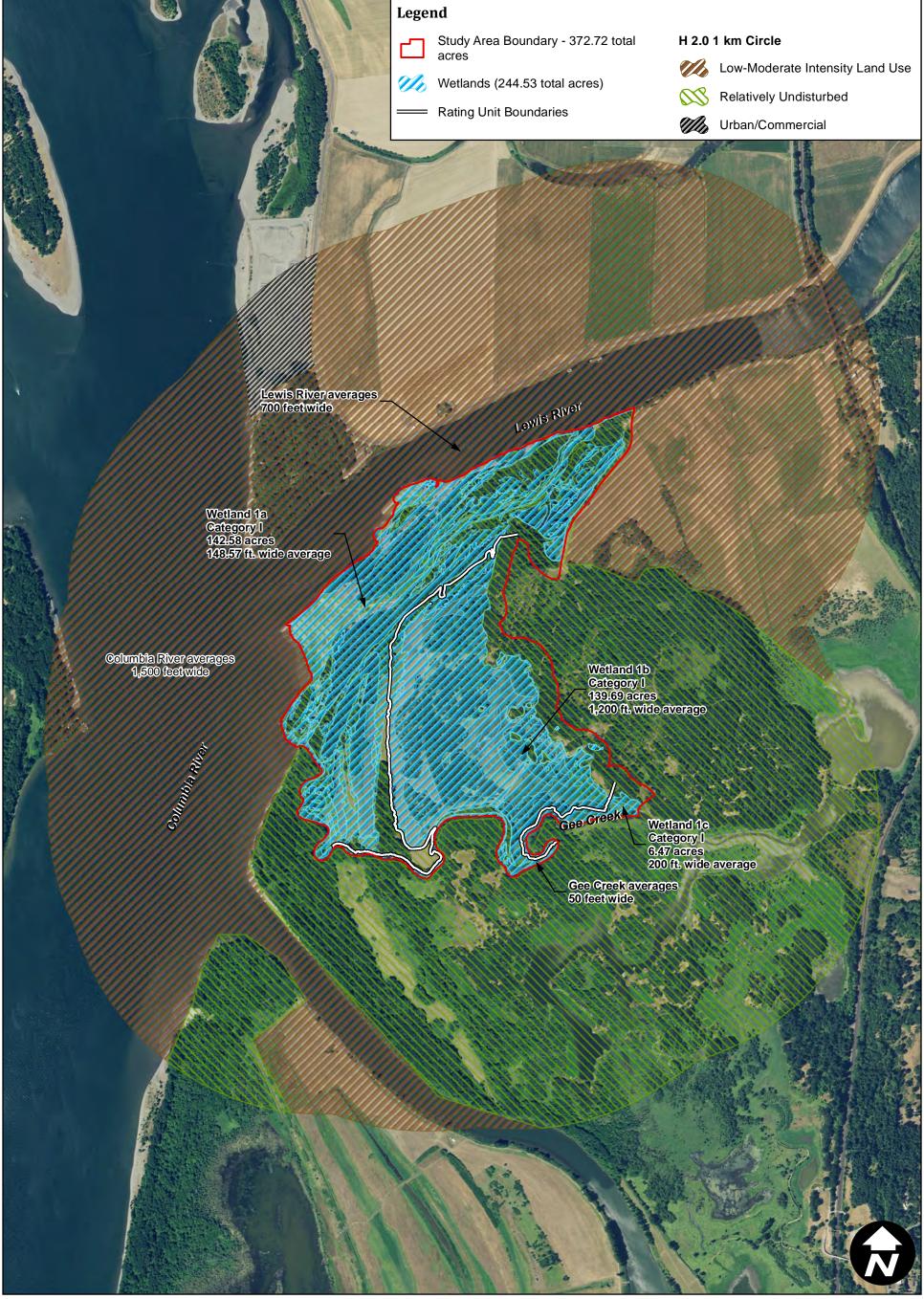
Scale: 1 inch = 550 feet

Data Source: Aerial Source: USDA, NAIP, 2015; WA Natural Heritage Program, 2013.

Appendix B: Figure 1-1. Wetland Rating Map



Plas Newydd Farm Wetland Delineation Report



Date: 5/6/2016

Scale: 1 inch = 1,400 feet

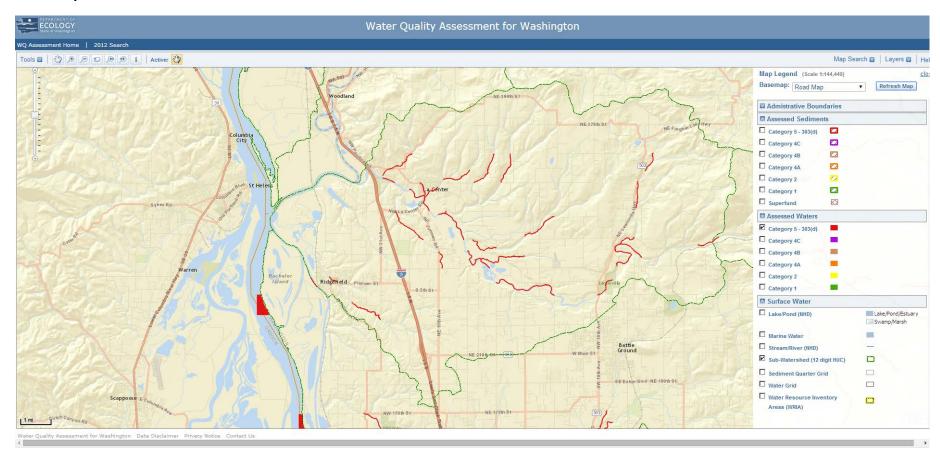
Data Source: Aerial Source: USDA, NAIP, 2015

Appendix B: Figure 1-2. Wetland Rating Map



Plas Newydd Farm Wetland Delineation Report

303d Map



TDML List



RATING SUMMARY – Western Washington

Name of wetland (or ID #): <u>WL-2a</u>	Date of site visit: May 2014
Rated by B. Haddaway	Trained by Ecology? Yes_X_No Date of training 2004 committee
HGM Class Used for Rating Slope NOTE: Form is not complete wit	Unit has multiple HGM classes?Y XN hout the figures requested. (figures can be combined)
Source of base aerial photo/n	
OVERALL WETLAND CATEGORY	III (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

_____Category I - Total score = 23 – 27
____Category II - Total score = 20 - 22
X ___Category III - Total score = 16 - 19
____Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic			Habitat				
		Circ	cle the	ap	propr	iate	rati	ngs		
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	H	М	L	
Value	Н	M	L	H	М	L	H	М	L	TOTAL
Score Based on Ratings		5			5			7		17

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H 8 = H,H,M 7 = H,H,L 7 = H,M,M 6 = H,M,L 6 = M,M,M 5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland with high conservation value	I	
Bog	I	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly (Western Washington).

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of 150 ft buffer (can be added to another figure)	L 2.2	
Polygon of area 1km from wetland edge (Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat)		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2-1
Hydroperiods	H 1.2	2-1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	2-1
Plant cover of dense , rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	2-1
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	2-1
Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat)	H 2.1, H2.2	2-2
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S 3.1, S 3.2	4
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	S 3.3	4

HGM Classification of Wetlands in Western Washington

For questions 1-7 the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

- **1.** Are the water levels in the entire unit usually controlled by tides except during floods? NO go to 2 **YES** the wetland class is **Tidal Fringe** go to 1.1
 - **1.1** Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - **YES Freshwater Tidal Fringe NO Saltwater Tidal Fringe (Estuarine)**If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.
- **2.** The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

- **3.** Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 acres (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO – go to 4

YES - The wetland class is **Lake-fringe** (Lacustrine Fringe)

- **4.** Does the entire wetland unit **meet all** of the following criteria?
 - X The wetland is on a slope (*slope can be very gradual*),
 - X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - X The water leaves the wetland without being impounded?

NO - go to 5

YES - The wetland class is **Slope**

- **NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).
- **5.** Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river
 - ___The overbank flooding occurs at least once every two years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes Within the Wetland Unit	HGM Class to
Being Rated	Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake-fringe	Depressional
Riverine + Lake-fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

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SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to in	mprove water quality	
S 1. Does the wetland unit have the potential to improve water quality?		
S 1.1 Characteristics of average slope of unit: (a 1% slope has a 1 ft vertical drop in elevation horizontal distance)	for every 100 ft	
Slope is1% or less	points = 3	
Slope is 1% - 2%	points = 2	
Slope is 2% - 5%	points = 1	3
Slope is greater than 5%	points = 0	
S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definition	ns)	0
YE	S = 3 points NO = 0 points	
S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants:		
Choose the points appropriate for the description that best fits the plants in the wetla you have trouble seeing the soil surface (>75% cover), and uncut means not grazed on higher than 6 inches.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	0
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the points in the boxes above		3

Rating of Site Potential If score is: 12 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page

S 2. 0 Does the landscape have the potential to support the water quality function at the site?	
S 2.1 2 Is > 10% of the buffer within 150 ft of wetland unit in land usse that generate pollutants $Yes = 1$ No = 0	1
S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1 – R 2.4	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: 1 - 2 = M 0 = L Record the rating on the first page

S 3.0 Is the water quality improvement provided by the site valuable to society?		
S 3.1 Does the unit discharge directly to a stream, river, or lake that is on the 303(d) list? Yes = 3	1 No = 0	0
S 3.2 Is the unit in a sub-basin where water quality is an issue? (at least one aquatic resource in the basin 303(d) list) Yes = 1	is on the 1 No = 0	1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? Yes =	2 No = 0	0
Total for D 3 Add the points in the boxes above		1

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros		
S 4.0 Does the wetland unit have the potential to reduce flooding and stream erosion?		
S 4.1 Characteristics of plants that reduce the velocity of surface flows during storms. Choose the points appropriate for the description that best fit conditions in the wetland. (Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows)		
Dense, uncut, rigid plants covers > 90% of the area of the wetland.	YES = 1	0
A	II other conditions = 0	

Rating of Site Potential If score is: 1 = M

0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions at the site?	
S 5.1 Is more than 25% of the buffer area within 150 ft upslope of wetland unit in land uses that generate excess	0
surface runoff. Yes = 1 No = 0	

Rating of Landscape Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 6.0 Are the hydrologic	functions provided by the site valuable to society?		
The sub-basin imi resources (e.g Surface flooding p	ist areas downstream that have flooding problems? nediately down-gradient of site has flooding problems that has da , salmon redds) problems are in a sub-basin further down-gradient ems anywhere downstream	amaged human or natural points = 2 points = 1 points = 0	2
S 6.2 Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0			0
Total for R 6	Add the points in the boxes above		2

Rating of Value If score is:

2 - 4 = H

1 = M

0 = L

Record the rating on the first

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat. H 1. Does the wetland unit have the potential to provide habitat for many species? H 1.1 Structure of plant community – indicators are Cowardin classes and layers in forest. Check the Cowardin plant classes in unit – Polygons for each class must total ¼ acre, or more than 10% of the unit if it is smaller than 2.5 acres. Add the number of structures checked ___Aquatic bed 4 structures or more points = 4 X Emergent plants points = 2 3 structures Scrub-shrub (areas where shrubs have > 30% cover) 2 structures points = 1 Forested (areas where trees have > 30% cover) 1 structure points = 0 If the unit has a forested class check if: The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 0 that each cover 20% within the forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present points = 3 X Seasonally flooded or inundated 3 types present points = 2Occasionally flooded or inundated 2 types present points = 1 X Saturated only points = 01 type present Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake-fringe wetland = 2 points 1 Freshwater tidal wetland = 2 points H 1.3. Richness of Plant Species Count the number of plant species in the wetland unit that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion between Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. NOTE: If you have four or more classes or three plants classes and open water the rating is always "high." None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points 0

H 1.5. Special Habitat Features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points	
Large, downed, woody debris within the unit (>4 inches diameter and 6 ft long).	
Standing snags (diameter at the bottom > 4 inches) within the unit	
Undercut banks are present for at least 6.6 ft (2m) and/or overhanging plants extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
At least ¼ acre of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated. (structures for egg-laying by amphibians)	1
X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
H 1. TOTAL Score - potential for providing habitat	3

Rating of Site Potential: If score is 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0 Does the landscape have the potential to support habitat at the site?						
H 2.1 Accessible habitat (include o	only habitat tha	t directly abuts we	tland unit).			
Calculate: % undisturbed ha	abitat + [(% mod	derate and low into	ensity land uses)/2] =	_		
If total accessible habitat is:	> 1/3 (33.3%) of 1 km circle <i>(~1</i>	.00 hectares or 250 acres)	points = 3		
	20 - 33% of	1 km circle		points = 2		
	10 - 19% of	1 km circle		points = 1	3	
	<10% of 1 kn	n circle		points = 0		
H 2.2 Undisturbed habitat in 1 km	circle around ι	ınit.				
Undisturbed habitat > 50% of circle points = 3						
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2						
Undisturbed habitat 10 - 50% and > 3 patches points = 1					2	
Undisturbed hab	itat < 10% of cir	cle		points = 0		
H 2.3 Land use intensity in 1 km c	ircle. If:				0	
> 50% of circle is high intens	ity land use	points = (- 2)	< =50% of circle is high inte	ensity points = 0		
Total for H 2	Add th	e points in the box	es above		5	

Rating of Landscape Potential If score is:

4-6=H 1-3=M

< 1 = L

Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H3.1Does the site provides habitat for species valued in laws, regulations or policies? *(choose only the highest score)*Site meets ANY of the following criteria:

points = 2

- It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- It is a "priority area" for an individual WDFW species
- It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources
- It has 3 or more priority habitats within 100m (see next page)
- It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats within 100m (see next page)

points = 1

Site does not meet any of the criteria above

points = 0

Rating of Value If score is

2 = H 1 = M 0 = L

Record the rating on the first page

Wetland	name or number	
wenanu	name or number	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)
Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? NOTE: This question is independent of the land use between the wetland unit and the priority habitat.
Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report p. 152</i>).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
Old-growth/Mature forests: (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 year of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 – see web link above).
Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (<i>full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page</i>).
Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ico or other geological formations and is large enough to contain a human.
Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt. YES = Go to SC 1.1 NO not an estuarine wetland SC 1.1 is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? YES = Category! NO go to SC 1.2 SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category! NO go to Category! NO = Category! IND =	Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
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the canopy.	any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under	Cat. I
VFS – Is a Category I ROG NO - Is not a hog	the canopy. YES – Is a Category I BOG NO - Is not a bog	

CC A O Face and a Wardless de	
SC 4.0 Forested Wetlands	
Does the wetland unit have at least <u>1 contiguous acre</u> of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? <i>If you answer yes you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more. 	
■ Mature forests: (west of the Cascade Crest) Stands where the largest trees are 80 – 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 inches (53cm).	
YES = Category I NO - not a forested wetland for this section	Cat. I
SC 5.0 Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
 The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks 	
 The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 	
ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
YES = Go to SC 5.1 NO- not a wetland in a coastal lagoon	Cat. II
SC 5.1 Does the wetland meets all of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 99). 	
— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or	
un-mowed grassland.	
 The wetland is larger than 1/10 acre (4350 square feet) 	
YES = Category I NO = Category II	
SC 6.0 Interdunal Wetlands	
Is the wetland unit west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)?	
YES - go to SC 6.1 NO - not an interdunal wetland for rating	
If you answer yes you will still need to rate the wetland based on its habitat functions.	
In practical terms that means the following geographic areas:	Cat I
Long Beach Peninsula- lands west of SR 103	Cati
Grayland-Westport- lands west of SR 105	
Ocean Shores-Copalis- lands west of SR 115 and SR 109	
- Occumulationes copulis failus west of six 115 and six 105	Cat. II
SC 6.1 Is the wetland one acre or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H	
or H,H,M for the three aspects of function)?	
YES = Category I NO – go to SC 6.2	Cat. III
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of wetlands that is once acre or larger? YES = Category II NO – go to SC 6.3	Cat. IV
SC 6.3 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre? YES = Category III NO - Category IV	
Catanami of watered hazard on Superial Chausatavistics	Cat. I
Category of wetland based on Special Characteristics If you answered NO for all types enter "Not Applicable" on Summary Form	Cat. I

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WL-2b	Date of site visit: May 2014
Rated by <u>B. Haddaway</u>	Trained by Ecology? Yes_X_No Date of training 2004_ committee
HGM Class Used for Rating Slope	Unit has multiple HGM classes?Y XN
NOTE: Form is not complete with Source of base aerial photo/m	nout the figures requested. (figures can be combined) ap 2013 NAIP, USDA
OVERALL WETLAND CATEGORY	III (based on functions X or special characteristics)
1 Category of wetland based	on FUNCTIONS

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 – 27
	Category II - Total score = 20 - 22
Χ	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
		Cir	cle the	ap	propr	iate	rati	ngs		
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	М	L	
Value	Н	M	L	H	M	L	H	M	L	TOTAL
Score Based on Ratings		5			5			7		17

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M,L,L3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I	II	
Wetland with high conservation value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above			

Maps and figures required to answer questions correctly (Western Washington).

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of 150 ft buffer (can be added to another figure)	L 2.2	
Polygon of area 1km from wetland edge (Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat)		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2-1
Hydroperiods	H 1.2	2-1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	2-1
Plant cover of dense , rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	2-1
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	2-1
Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat)	H 2.1, H2.2	2-2
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S 3.1, S 3.2	4
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	S 3.3	4

HGM Classification of Wetlands in Western Washington

For questions 1-7 the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

- **1.** Are the water levels in the entire unit usually controlled by tides except during floods? NO go to 2 **YES** the wetland class is **Tidal Fringe** go to 1.1
 - **1.1** Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - **YES Freshwater Tidal Fringe NO Saltwater Tidal Fringe (Estuarine)**If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.
- **2.** The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

- **3.** Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 acres (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO - go to 4

YES - The wetland class is **Lake-fringe** (Lacustrine Fringe)

- **4.** Does the entire wetland unit **meet all** of the following criteria?
 - X The wetland is on a slope (*slope can be very gradual*),
 - X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - X The water leaves the wetland without being impounded?

NO - go to 5

YES - The wetland class is **Slope**

- **NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).
- **5.** Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river
 - ___The overbank flooding occurs at least once every two years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes Within the Wetland Unit	HGM Class to
Being Rated	Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake-fringe	Depressional
Riverine + Lake-fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

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SLOPE WETLANDS		
Water Quality Functions - Indicators that the site function	ns to improve water quality	
S 1. Does the wetland unit have the potential to improve water quality?		
S 1.1 Characteristics of average slope of unit: (a 1% slope has a 1 ft vertical drop in el horizontal distance)	levation for every 100 ft	
Slope is1% or less	points = 3	
Slope is 1% - 2%	points = 2	
Slope is 2% - 5%	points = 1	3
Slope is greater than 5%	points = 0	
S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions)		0
YES = 3 points NO = 0 points		
S 1.3 Characteristics of the plants in the wetland that trap sediments and pollutants:		
Choose the points appropriate for the description that best fits the plants in the wetland. Dense plants means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 inches.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	0
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the points in the boxes above		3

Rating of Site Potential If score is: 12 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page

S 2. 0 Does the landscape have the potential to support the water quality function at the site?	
S 2.1 2 Is > 10% of the buffer within 150 ft of wetland unit in land usse that generate pollutants $Yes = 1$ No = 0	1
S 2.2 Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1 – R 2.4	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	1

Rating of Landscape Potential If score is: 1 - 2 = M 0 = L Record the rating on the first page

S 3.0 Is the water quality improvement provided by the site valuable to society?		
S 3.1 Does the unit discharge directly to a stream, river, or lake that is on the 303(d) list?	Yes = 1 No = 0	0
S 3.2 Is the unit in a sub-basin where water quality is an issue? (at least one aquatic resource in the basin is on the $303(d)$ list) Yes = 1 No = 0		1
S 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? Yes = 2 No = 0		0
Total for D 3 Add the points in the boxes above		1

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosic		on
S 4.0 Does the wetland unit have the potential to reduce flooding and stream erosion?		
S 4.1 Characteristics of plants that reduce the velocity of surface flows during storms. Choose the points appropriate for the description that best fit conditions in the wetland. (Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows)		
Dense, uncut, rigid plants covers > 90% of the area of the wetland.	YES = 1	0
A	II other conditions = 0	

Rating of Site Potential If score is: 1 = M

0 = L

Record the rating on the first page

S 5.0 Does the landscape have the potential to support the hydrologic functions at the site?	
S 5.1 Is more than 25% of the buffer area within 150 ft upslope of wetland unit in land uses that generate excess	0
surface runoff. Yes = 1 No = 0	

Rating of Landscape Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 6.0 Are the hydrologic	functions provided by the site valuable to society?		
S 6.1 Distance to the nearest areas downstream that have flooding problems? The sub-basin immediately down-gradient of site has flooding problems that has damaged human or natural resources (e.g., salmon redds) Surface flooding problems are in a sub-basin further down-gradient No flooding problems anywhere downstream points = 0		2	
S 6.2 Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0		0	
Total for R 6	Add the points in the boxes above		2

Rating of Value If score is:

2 - 4 = H

1 = M

0 = L

Record the rating on the first

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat. H 1. Does the wetland unit have the potential to provide habitat for many species? H 1.1 Structure of plant community – indicators are Cowardin classes and layers in forest. Check the Cowardin plant classes in unit – Polygons for each class must total ¼ acre, or more than 10% of the unit if it is smaller than 2.5 acres. Add the number of structures checked ___Aquatic bed 4 structures or more points = 4 X __Emergent plants points = 2 3 structures Scrub-shrub (areas where shrubs have > 30% cover) 2 structures points = 1 X Forested (areas where trees have > 30% cover) 1 structure points = 0 If the unit has a forested class check if: 2 X The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present points = 3 X Seasonally flooded or inundated 3 types present points = 2Occasionally flooded or inundated 2 types present points = 1 X Saturated only points = 01 type present Permanently flowing stream or river in, or adjacent to, the wetland _Seasonally flowing stream in, or adjacent to, the wetland Lake-fringe wetland = 2 points 1 Freshwater tidal wetland = 2 points H 1.3. Richness of Plant Species Count the number of plant species in the wetland unit that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion between Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. NOTE: If you have four or more classes or three plants classes and open water the rating is always "high." None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points 1

H 1.5. Special Habitat Features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points	
Large, downed, woody debris within the unit (>4 inches diameter and 6 ft long).	
Standing snags (diameter at the bottom > 4 inches) within the unit	
Undercut banks are present for at least 6.6 ft (2m) and/or overhanging plants extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is	
exposed)	
At least ¼ acre of thin-stemmed persistent plants or woody branches are present in areas that are permanently	
or seasonally inundated.(structures for egg-laying by amphibians)	1
X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	
H 1. TOTAL Score - potential for providing habitat	6

Rating of Site Potential: If score is 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0 Does the landscape have	the potential	to support habit	at at the site?		
H 2.1 Accessible habitat (include o	only habitat tha	t directly abuts we	tland unit).		
Calculate: % undisturbed ha	abitat + [(% mod	derate and low into	ensity land uses)/2] =	_	
If total accessible habitat is:	> 1/3 (33.3%) of 1 km circle <i>(~1</i>	.00 hectares or 250 acres)	points = 3	
	20 - 33% of	1 km circle		points = 2	
	10 - 19% of	1 km circle		points = 1	3
	<10% of 1 kn	n circle		points = 0	
H 2.2 Undisturbed habitat in 1 km	circle around ι	ınit.			
Undisturbed hab	itat > 50% of cir	cle		points = 3	
Undisturbed hab	itat 10 - 50% ar	d in 1-3 patches		points = 2	
Undisturbed hab	itat 10 - 50% ar	id > 3 patches		points = 1	2
Undisturbed hab	itat < 10% of cir	cle		points = 0	
H 2.3 Land use intensity in 1 km c	ircle. If:				0
> 50% of circle is high intens	ity land use	points = (- 2)	< =50% of circle is high inte	ensity points = 0	
Total for H 2	Add th	e points in the box	es above		5

Rating of Landscape Potential If score is:

4-6=H 1-3=M

< 1 = L

Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H3.1Does the site provides habitat for species valued in laws, regulations or policies? *(choose only the highest score)*Site meets ANY of the following criteria:

points = 2

- It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- It is a "priority area" for an individual WDFW species
- It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources
- It has 3 or more priority habitats within 100m (see next page)
- It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats within 100m (see next page)

points = 1

Site does not meet any of the criteria above

points = 0

Rating of Value If score is

2 = H 1 = M 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

27. pp. marinings // pasisations/ or 200/ marino 2000 par
Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? NOTE: This question is independent of the land use between the wetland unit and the priority habitat.
Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report p. 152</i>).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
X Old-growth/Mature forests: (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
X Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 – see web link above).
Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).
Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt. YES = Go to SC 1.1 NO not an estuarine wetland SC 1.1 is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? YES = Category! NO go to SC 1.2 SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category! NO go to Category! NO = Category! IND =	Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
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Cat. I Cat. I Conservation Value? SC 2.2 Is the wetland unit you are rating listed on the DNR database as having a High Conservation Value? YES = Category I NO = not a WHCV SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf VES = contact WNHP/DNR and go to SC 2.4 NO = not a WHCV SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site? SC 3.0 Bogs Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? YES = go to Question SC 3.3 NO = go to Question SC 3.2 SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? YES = go to Question SC 3.3 NO - Is not a bog SC 3.3 Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? YES = Is a Category I BOG NO - go to Question SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the "bog" plant species are present in Table 4, the wetland is a bog. SC 3.4 Is an area with peats or mucks forested (> 30% cover) with Sitka Spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the cadar, western hemlock, lodgepole pine, quaking aspen, En	SC 2.0 Wetlands with High Conservation Value (WHCV)	
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VFS – Is a Category I ROG NO - Is not a hog	the canopy. YES – Is a Category I BOG NO - Is not a bog	

	nit have at least <u>1 contiguous acre</u> of fores	st that meet one of these cr	iteria for the	
wetland based on it.	and Wildlife's forests as priority habitats?			
	s <i>junctions.</i> p rests : (west of Cascade crest) Stands of at	· least two tree species forr	ning a multi-lavered	
canopy with o	ccasional small openings; with at least 8 to R have a diameter at breast height (dbh) o	rees/acre (20 trees/hectare)) that are at least 200	
	:: (west of the Cascade Crest) Stands wher take up the canopy have an average diamo	_		
	YES = Category I	NO - not a forested wet	tland for this section	Cat. I
5.0 Wetlands in Coa	-			
	eet all of the following criteria of a wetlar		rtially congrated from	
	and lies in a depression adjacent to marine aters by sandbanks, gravel banks, shingle,		rtially separated from	
	on in which the wetland is located contains		e or brackish (> 0.5	
_	ng most of the year in at least a portion of			Cat. I
	YES = Go to SC 5.1		d in a coastal lagoon	Cat. II
	etland meets all of the following three con			
	nd is relatively undisturbed (has no diking			
	20% cover of aggressive, opportunistic pla			
	of the landward edge of the wetland has	a 100 ft buffer of shrub, for	est, or un-grazed or	
	d grassland.	[a.a.k]		
— The wetta	and is larger than 1/10 acre (4350 square f YE S	S = Category I	NO = Category II	
6.0 Interdunal Wetl	ands			
Is the wetland unit	west of the 1889 line (also called the Wes	tern Boundary of Upland Ov	wnership or WBUO)?	
	YES - go to SC 6.1	NO - not an interdunal w	_	
	yes you will still need to rate the wetland	d based on its habitat funct	ions.	
If you answer				
	rms that means the following geographic a	ireas:		Cat I
	rms that means the following geographic a Long Beach Peninsula- lands west of S			Cat I
		R 103		Cat I
	Long Beach Peninsula- lands west of S	R 103 105		
In practical ter • • • • • SC 6.1 Is the wetla	Long Beach Peninsula- lands west of S Grayland-Westport- lands west of SR Ocean Shores-Copalis- lands west of S and one acre or larger and scores an 8 or S	R 103 105 R 115 and SR 109	n the form (rates H,H,H	Cat I
In practical ter • • • • • SC 6.1 Is the wetla	Long Beach Peninsula- lands west of S Grayland-Westport- lands west of SR Ocean Shores-Copalis- lands west of S and one acre or larger and scores an 8 or She three aspects of function)?	R 103 105 R 115 and SR 109 9 for the habitat functions o		
In practical ter • • • • SC 6.1 Is the wetla	Long Beach Peninsula- lands west of S Grayland-Westport- lands west of SR Ocean Shores-Copalis- lands west of S and one acre or larger and scores an 8 or S he three aspects of function)? YES = Car and one acre or larger, or is it in a mosaic	R 103 105 R 115 and SR 109 9 for the habitat functions o tegory I NO – of wetlands that is once acre	go to SC 6.2 e or larger?	Cat. II
In practical ter • • • • SC 6.1 Is the wetla or H,H,M for t SC 6.2 Is the wetla	Long Beach Peninsula- lands west of S Grayland-Westport- lands west of SR Ocean Shores-Copalis- lands west of S and one acre or larger and scores an 8 or She three aspects of function)?	R 103 105 R 115 and SR 109 9 for the habitat functions o tegory I NO – of wetlands that is once acre tegory II NO – ic of wetlands that is between	go to SC 6.2 e or larger? go to SC 6.3	Cat. II

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WL-2c: Lancas	ter Lake Date of site visit: June 2014
Rated by <u>B. Haddaway</u>	_Trained by Ecology? YesNo Date of training 2004 committee
HGM Class Used for Rating Lake-fringe NOTE: Form is not complete witho Source of base aerial photo/mag	Unit has multiple HGM classes? X Y Nut the figures requested. (figures can be combined)
OVERALL WETLAND CATEGORY <u>II</u>	

1. Category of wetland based on FUNCTIONS

	Category I - Total score = 23 – 27
X	Category II - Total score = 20 - 22
	Category III - Total score = 16 - 19
	Category IV - Total score = 9 - 15

FUNCTION		mprov iter Q	ving uality	Hy	Hydrolo		ı	Habitat		
		Cir	cle the	ар	propr	iate	ratii	ngs		
Site Potential	H	М	L	Н	M	L	Н	M	L	
Landscape Potential	Н	M	L	Н	М	L	Н	М	L	
Value	H	М	L	Н	М	L	H	М	L	TOTAL
Score Based on Ratings		8			4			8		20

Score for each function based on three ratings (order of ratings is not important)
9 = H,H,H 8 = H,H,M 7 = H,H,L 7 = H,M,M 6 = H,M,L 6 = M,M,M
5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CAT	EGORY
Estuarine	I	II
Wetland with high conservation value		I
Bog		I
Mature Forest		I
Old Growth Forest	I	
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly (Western Washington).

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D1.4	
Boundary of 150 ft buffer (can be added to another figure)	D 2.2, D 5.2	
Polygon of area 1km from wetland edge - Including polygons for accessible	H 2.1, H2.2	
habitat and undisturbed habitat		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	D 3.1, D 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of 150 ft buffer (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Polygon of area 1km from wetland edge -Including polygons for accessible habitat and undisturbed habitat	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	R 3.1	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake-fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	2-1
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	2-1
Boundary of 150 ft buffer (can be added to another figure)	L 2.2	2-1
Polygon of area 1km from wetland edge (Including polygons for accessible	H 2.1, H2.2	2-2
habitat and undisturbed habitat)		
Screen capture of map of 303d listed waters in basin (from Ecology web site)	L 3.1	4
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	L 3.3	4

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
Polygon of area 1km from wetland edge (Including polygons for accessible habitat and undisturbed habitat)	H 2.1, H2.2	
Screen capture of map of 303d listed waters in basin (from Ecology web site)	S 3.1, S 3.2	
Screen capture of list of TMDL's for WRIA in which unit is found (from web)	\$ 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7 the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

- **1.** Are the water levels in the entire unit usually controlled by tides except during floods? **NO** go to 2 **YES** the wetland class is **Tidal Fringe** go to 1.1
 - **1.1** Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
 - **YES Freshwater Tidal Fringe NO Saltwater Tidal Fringe (Estuarine)**If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.
- **2.** The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

- **3.** Does the entire wetland unit **meet all** of the following criteria?
 - X The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 acres (8 ha) in size:
 - X At least 30% of the open water area is deeper than 6.6 ft (2 m)?

NO – go to 4

YES - The wetland class is **Lake-fringe** (Lacustrine Fringe)

- **4.** Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (slope can be very gradual),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
 - ___The water leaves the wetland without being impounded?

NO - go to 5

YES - The wetland class is **Slope**

- **NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).
- **5.** Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river
 - ___The overbank flooding occurs at least once every two years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes Within the Wetland Unit	HGM Class to	
Being Rated	Use in Rating	
Slope + Riverine	Riverine	
Slope + Depressional	Depressional	
Slope + Lake-fringe	Lake-fringe	
Depressional + Riverine along stream	Depressional	
within boundary of depression		
Depressional + Lake-fringe	Depressional	
Riverine + Lake-fringe	Riverine	
Salt Water Tidal Fringe and any other	Treat as	
class of freshwater wetland	ESTUARINE	

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

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LAKE-FRINGE WETLA	NDS				
Water Quality Functions - Indicators that the site fu	Water Quality Functions - Indicators that the site functions to improve water quality.				
L 1.0 Does the wetland unit have the potential to improve water quality	?				
L 1.1 Average width of plants along the lakeshore (use polygons of Cowardin cl	asses):				
Plants are more than 33 ft (10m) wide	points = 6				
Plants are more than 16 ft (5m) wide and <33ft	points = 3				
Plants are more than 6 ft (2m) wide and <16 ft	points = 1	6			
Plants are less than 6 ft wide	points = 0				
L 1.2 Characteristics of the plants in the wetland: choose the appropriate desc	-				
points, and do not include any open water in your estimate of coverage. the dominant form or as an understory in a shrub or forest community. of cover is total cover in the unit, but it can be in patches. Herbaceous do	These are not Cowardin classes. Area				
Cover of herbaceous plants are >90% of the vegetated area	points = 6				
Cover of herbaceous plants are >2/3 of the vegetated area	points = 4				
Cover of herbaceous plants are >1/3 of the vegetated area	points = 3				
Other plants that are not aquatic bed > 2/3 unit	points = 3				
Other plants that are not aquatic bed in > 1/3 vegetated area	points = 1	6			
Aquatic bed plants and open water cover > 2/3 of the unit	points = 0				
Total for L 1	Add the points in the boxes above	12			

Rating of Site Potential If score is: 8 - 12 = H 4 - 7 = M 0 - 3 = L Record the rating on the first page

L 2. Does the landscape have the potential to support the water quality function at the site?				
L 2.1 Is the lake used by pov	ver boats?	Yes = 1	No = 0	0
L 2.2 2 Is > 10% of the buffer within 150 ft of wetland unit on the upland side in land uses that generate pollutants? Yes = 1 No = 0				1
L 2.3 Does the lake have pro	oblems with algal blooms or excessive plants such as milfoil?	Yes = 1	No = 0	0
Total for L 2	Add the points in the boxes above			1

Rating of Landscape Potential: If score is: 2 or 3 = H 1 = M 0 = L Record the rating on the first page

L 3.0 Is the water quality improvement provided by the site valuable to society?	
L 3.1 Is the unit on a lake that is on the 303(d) list? Yes = 1 No = 0	0
L 3.2 Is the lake in a sub-basin where water quality is an issue? (at least one aquatic resource in the basin is on the $303(d)$ list) Yes = 1 No = 0	1
L 3.3 Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer YES if there is a TMDL for the lake or basin in which unit is found) Yes = 2 No = 0	2
Total for L 3 Add the points in the boxes above	3

Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page

<u>LAKE-FRINGE WETLANDS</u>				
Hydrologic Functions - Indicators that the wetland unit funct	tions to reduce shoreline erosic	on		
L 4.0 Does the wetland unit have the potential to reduce shoreline erosion?				
L 4.1 Distance along shore and average width of Cowardin classes along the lakeshore (do not include aquatic bed): (choose the highest scoring description that matches conditions in the wetland)				
> % of distance is shrubs or forest at least 33 ft (10m) wide	points = 6			
> % of distance is shrubs or forest at least 6 ft (2 m) wide	points = 4			
> ¼ distance is shrubs or forest at least 33 ft (10m) wide	points = 4			
Plants are at least 6 ft (2m) wide (any type except aquatic bed)	points = 2			
Plants are less than 6 ft (2m) wide (any type except aquatic bed)	points = 0	6		

Rating of Site Potential: If score is:

6 = M

0 - 5 = L

Record the rating on the first page

L 5.0 Does the landscape have the potential to support hydrologic functions at the site?			
L 5.1 Is the lake used by p	ower boats with more than 10 hp?	Yes = 1 No = 0	0
L 5.2 Is the fetch on the lake side of the unit at least 1 mile in distance? Yes = 1 No = 0			0
Total for L 5	Add the points in the boxes abo	ove	0

0 = L

Rating of Landscape Potential If score is:

2 = H

1 = M

Record the rating on the first page

L 6.0 Are the hydrologic functions provided by the site valuable to society?	
L 6.1 If more than one resource is present, choose the one with the highest score.	
There are human structures or old growth/mature forests within 25 ft of OHWM of the shore in the unit. points	= 2
There are nature trails or other paths and recreational activities within 25 ft of OHWM. points	= 1
Other resources that could be impacted by erosion. points	= 1
There are no resources that can be impacted by erosion along the shores of the unit.	<mark>= 0</mark>

Rating of Value:

If score is:

2 = H

1 = M

0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS: L 6: Wetland is located behind levees, isolating it from floods.

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat. H 1. Does the wetland unit have the potential to provide habitat for many species? H 1.1 Structure of plant community – indicators are Cowardin classes and layers in forest. Check the Cowardin plant classes in unit – Polygons for each class must total ¼ acre, or more than 10% of the unit if it is smaller than 2.5 acres. Add the number of structures checked X Aquatic bed 4 structures or more points = 4 X Emergent plants points = 2 3 structures X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures points = 1 Forested (areas where trees have > 30% cover) 1 structure points = 0 If the unit has a forested class check if: 2 The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present points = 3 Seasonally flooded or inundated 3 types present points = 2Occasionally flooded or inundated 2 types present points = 1 Saturated only points = 01 type present Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland X Lake-fringe wetland = 2 points 2 Freshwater tidal wetland = 2 points H 1.3. Richness of Plant Species Count the number of plant species in the wetland unit that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion between Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. NOTE: If you have four or more classes or three plants classes and open water the rating is always "high." None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are HIGH = 3points 3

H 1.5. Special Habitat Features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points	
X Large, downed, woody debris within the unit (>4 inches diameter and 6 ft long).	
X Standing snags (diameter at the bottom > 4 inches) within the unit	
Undercut banks are present for at least 6.6 ft (2m) and/or overhanging plants extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least ¼ acre of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated.(structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	3
H 1. TOTAL Score - potential for providing habitat	11

Rating of Site Potential: If score is 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0 Does the landscape have	the potential	to support habit	at at the site?		
H 2.1 Accessible habitat (include o	nly habitat that	directly abuts we	tland unit).		
Calculate: % undisturbed ha	bitat + [(% mod	erate and low inte	nsity land uses)/2] =	_	
If total accessible habitat is:	> 1/3 (33.3%)	of 1 km circle (~1	00 hectares or 250 acres)	points = 3	
	20 - 33% of 1	km circle		points = 2	
	10 - 19% of 1	km circle		points = 1	3
	<10% of 1 km	circle		points = 0	
H 2.2 Undisturbed habitat in 1 km	circle around u	nit.			
Undisturbed habi	tat > 50% of circ	cle		points = 3	
Undisturbed habi	tat 10 - 50% and	d in 1-3 patches		points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1			2		
Undisturbed habi	tat < 10% of circ	cle		points = 0	
H 2.3 Land use intensity in 1 km ci	rcle. If:				0
> 50% of circle is high intensi	ty land use	points = (- 2)	< =50% of circle is high into	ensity points = 0	
Total for H 2	Add the	points in the box	es above		5

Rating of Landscape Potential If score is:

4-6=H 1-3=M

< 1 = L

Record the rating on the first page

H 3.0 Is the Habitat provided by the site valuable to society?

H3.1Does the site provides habitat for species valued in laws, regulations or policies? *(choose only the highest score)*Site meets ANY of the following criteria:

points = 2

- It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
- It is a "priority area" for an individual WDFW species
- It is a Wetland With a High Conservation Value as determined by the Department of Natural Resources
- It has 3 or more priority habitats within 100m (see next page)
- It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan

Site has 1 or 2 priority habitats within 100m (see next page)

points = 1

Site does not meet any of the criteria above

points = 0

Rating of Value If score is

2 = H 1 = M 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

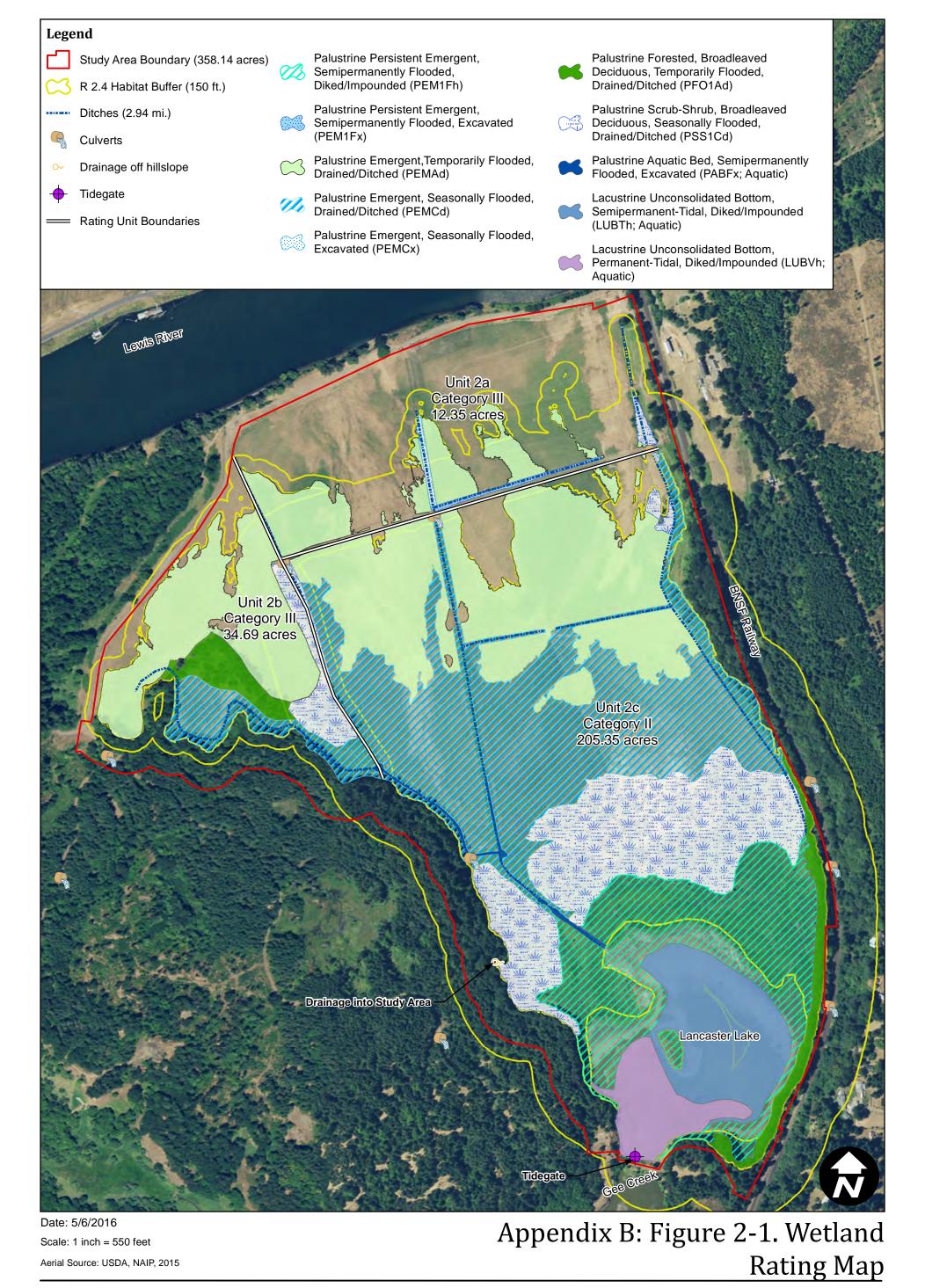
177 pp. http://waiw.wa.gov/publications/00105/waiw00105.pui
Count how many of the following priority habitats are within 330 ft (100m) of the wetland unit? <i>NOTE: This question is independent of the land use between the wetland unit and the priority habitat.</i>
Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report p. 152).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
<u>X</u> Old-growth/Mature forests: (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
<u>X</u> Oregon white Oak: Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
X Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 – see web link above).
X Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).
Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
Cliffs: Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number _____

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt. YES = Go to SC 1.1 NO not an estuarine wetland SC 1.1 is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? YES = Category! NO go to SC 1.2 SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category! NO go to Category! NO = Category! IND =	Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt. YES = Go to SC.1.1 NO not an estuarine wetland SC 1.1 is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? YES = Category I NO go to SC 1.2 SC 1.2 is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Sportino, see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-moved grassland. — The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. SC 2.1 has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES — Category I NO — not a WHCV SC 2.1 has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES — Category I NO — not a WHCV SC 2.3 is the wetland unit you are rating listed on the DNR database as having a High Conservation Value? YES — Contact WhitP/DNR and go to SC 2.4 NO — not a WHCV SC 2.4 has DNR identified the wetland within the S/T/R as a wetland with high Conservation value and is listed on their web site? YES — Contact WhitP/DNR and go to SC 2.4 NO — not an WHCV SC 2.8 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? YES — go to Question SC 3.3 NO - go to Question SC 3.3 SC 3.1 Does an area within the wetland unit have organic soil horizons, either	22	
SC 1.1 is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-1517	Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal,	
Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 323-30-151? YES = Category! NO go to SC 1.2 SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category! NO = Category! — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (in non-native species are Spartina, see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. SC 2.0 Wetlands with High Conservation Value (WHCV) SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES - Go to SC 2.2 NO - Go to SC 2.3 SC 2.2 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nbp/refdest/datasearch/wnhpwetlands.pdf YES - Contact WiNPFDDMR and go to SC 2.4 NO = not a WHCV SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site? YES - Category! NO = not a WHCV SC 3.8 Bogs Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1 Does an area within the wetland unit have organic soil, britons, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? YES - go to Question SC 3.3 NO - go to Question SC 3.4 NO - go to Question SC 3.4 NO - go to Question SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at	-	
The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , see page 25) —At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. —The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. SC 2.0 Wetlands with High Conservation Value (WHCV) SC 2.1 Has the Department of Natural Resources updated their web site to include the list of Wetlands with High Conservation Value? YES - Go to SC 2.2 NO - Go to SC 2.3 NO - Go to SC 2.3 NO - so to SC 2.3 St the wetland unit you are rating listed on the DNR database as having a high Conservation Value? YES - Category I NO = not a WHCV SC 2.3 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf YES - Contact WNHP/DNR and go to SC 2.4 NO = not a WHCV SC 2.4 Has DNR identified the wetland within the S/T/R as a wetland with High Conservation value and is listed on their web site? YES - Category I NO = not a WHCV SC 3.0 Bogs Does the wetland unit (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1 Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? YES - go to Question SC 3.3 NO - go to Question SC 3.2 SC 3.2 Does an area within the wetland unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? YES - go to Question SC 3.3 NO - is not a bog SC 3.3 Does an area with peats or mucks have more than 70% co	Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC	Cat. I
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cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy. Cat. I	NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the	
any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy.		
the canopy.	any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under	Cat. I
VFS – Is a Category I ROG NO - Is not a hog	the canopy. YES – Is a Category I BOG NO - Is not a bog	

SC 4.0 Forested Wetlands			
Does the wetland unit have at least <u>1 contiguous acre</u> of fores Department of Fish and Wildlife's forests as priority habitats? wetland based on its functions.			
 Old-growth forests: (west of Cascade crest) Stands of at canopy with occasional small openings; with at least 8 tr years of age OR have a diameter at breast height (dbh) of 	ees/acre (20 trees/h	ectare) that are at least 200	
 Mature forests: (west of the Cascade Crest) Stands when species that make up the canopy have an average diame 	•	•	
YES = Category I	NO - not a forest	ed wetland for this section	Cat. I
C 5.0 Wetlands in Coastal Lagoons			
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?			
 The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks 			
The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5)			
ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)			Cat. I
YES = Go to SC 5.1 NO- not a wetland in a coastal lagoon		Cat. II	
SC 5.1 Does the wetland meets all of the following three conditions?			
— The wetland is relatively undisturbed (has no diking			
less than 20% cover of aggressive, opportunistic pla — At least ¾ of the landward edge of the wetland has	•		
un-mowed grassland.	a 100 it builei oi siii	ub, forest, or un-grazed or	
 The wetland is larger than 1/10 acre (4350 square f 	eet)		
	= Category I	NO = Category II	
C 6.0 Interdunal Wetlands			
Is the wetland unit west of the 1889 line (also called the West			
YES - go to SC 6.1 If you answer yes you will still need to rate the wetland		dunal wetland for rating	
ij you answer yes you will still heed to rate the wetland	i buseu on its nubitu	t junctions.	
In practical terms that means the following geographic areas:		Cat I	
Long Beach Peninsula- lands west of SR 103			
Grayland-Westport- lands west of SR 105			
 Ocean Shores-Copalis- lands west of St 	R 115 and SR 109		
			Cat. II
SC 6.1 Is the wetland one acre or larger and scores an 8 or 9 or H,H,M for the three aspects of function)?		·	
YES = Cat	• ,	NO – go to SC 6.2	Cat. III
SC 6.2 Is the wetland one acre or larger, or is it in a mosaic of		nce acre or larger? NO – go to SC 6.3	Cat. IV
YES = Cat SC 6.3 Is the unit between 0.1 and 1 acre, or is it in a mosai		_	
YES = Cat		NO – Category IV	
Category of wetland based on Special Characteristics			
If you answered NO for all types enter "Not Applicable" on Sum	mary Form		



CASCADE ENVIRONMENTAL GROUP

Plas Newydd Farm Wetland Delineation Report



Date: 5/6/2016 Scale: 1 inch = 1,200 feet Aerial Source: USDA, NAIP, 2015

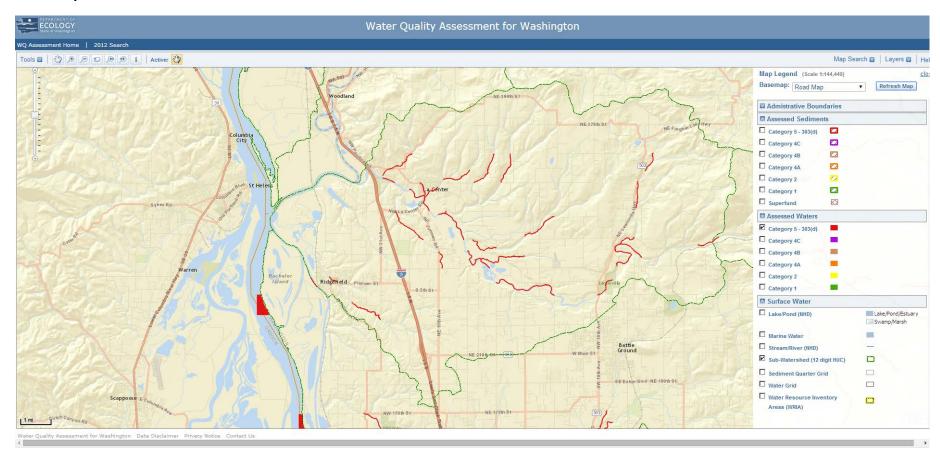
CASCADE

Appendix B: Figure 2-2. Wetland Rating Map



Plas Newydd Farm Wetland Delineation Report

303d Map



TDML List



RATING SUMMARY – Western Washington

Name of wetland (or ID #): Unit 3a	Date of site visit: <u>8/31/2015</u>
Rated by <u>K. Biafora; B. Haddaway</u>	Trained by Ecology? <u>X</u> YesNo Date of training <u>9/2014</u>
HGM Class used for rating Riverine	Wetland has multiple HGM classes?Y XN
NOTE: Form is not complete with Source of base aerial photo/ma	nout the figures requested (figures can be combined).
Source of base aerial prioto/in-	ap <u>INAIF 2009</u>

OVERALL WETLAND CATEGORY II (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

X Category II – Total score = 20 - 22

Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
				Circle the appropriate ratings				tings		
Site Potential	Н	M	L	Н	M	L	Н	M	L	
Landscape Potential	Н	M	L	Н	M	L	Н	М	L	
Value	H	М	L	H	М	L	H	М	L	TOTAL
Score Based on Ratings		7			7			8		22

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M, M, L4 = M, L, L3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC		EGORY
Estuarine	I	II
Wetland of High Conservation Value		I
Bog	I	
Mature Forest	I	
Old Growth Forest		I
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	3-1
Hydroperiods	H 1.2	3-1
Ponded depressions	R 1.1	3-1
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	3-1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	3-1
Width of unit vs. width of stream (can be added to another figure)	R 4.1	3-1
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	3-2
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	4

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO - go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO - go to 3

YES - The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ____The wetland is on a slope (*slope can be very gradual*),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - The water leaves the wetland without being impounded.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ____The overbank flooding occurs at least once every 2 years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS			
Water Quality Functions - Indicators that the site functions to improve water quality			
R 1.0. Does the site have the potential to improve water quality?			
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:			
Depressions cover > 3/4 area of wetland points = 8			
Depressions cover > ½ area of wetland points = 4			
Depressions present but cover < ½ area of wetland points = 2	2		
No depressions present points = 0			
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, not Cowardin classes)			
Trees or shrubs $> \frac{2}{3}$ area of the wetland points = 8			
Trees or shrubs $> \frac{1}{3}$ area of the wetland points = 6			
Herbaceous plants (> 6 in high) > 2 / ₃ area of the wetland points = 6			
Herbaceous plants (> 6 in high) > $^{1}/_{3}$ area of the wetland points = 3	8		
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland points = 0			
Total for R 1 Add the points in the boxes above	10		
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the	he first page		
R 2.0. Does the landscape have the potential to support the water quality function of the site?			
R 2.1. Is the wetland within an incorporated city or within its UGA? Yes = $2 \text{ No} = 0$	0		
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area? Yes = 1 No = 0	1		
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years? Yes = 1 No = 0	1		
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0		
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources Yes = 1 No = 0	0		
Total for R 2 Add the points in the boxes above	2		
Rating of Landscape Potential If score is: 3-6 = H X 1 or 2 = M 0 = L Record the rating on the	he first page		
R 3.0. Is the water quality improvement provided by the site valuable to society?			
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?			
	1		
Yes = 1 No = 0			
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	1		
Yes = 1 No = 0			
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer	2		
YES if there is a TMDL for the drainage in which the unit is found) Yes = $2 \text{ No} = 0$			
Total for R 3 Add the points in the boxes above	4		

Rating of Value If score is: <u>X</u> 2-4 = H ___1 = M ___0 = L

Record the rating on the first page

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosio	n
R 4.0. Does the site have the potential to reduce flooding and erosion?	
R 4.1. Characteristics of the overbank storage the wetland provides:	
Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the	
stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average	
width of stream between banks).	
If the ratio is more than 20 points = 9	
If the ratio is 10-20 points = 6	
If the ratio is 5-<10 points = 4	
If the ratio is 1-<5 points = 2	2
If the ratio is < 1 points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: <i>Treat large woody debris as forest or</i>	
shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person	
height. These are <u>NOT Cowardin</u> classes).	
Forest or shrub for $>^1/_3$ area OR emergent plants $>^2/_3$ area points = 7 Forest or shrub for $>^1/_{10}$ area OR emergent plants $>^1/_3$ area points = 4	_
	7
Plants do not meet above criteria points = 0	0
Total for R 4 Add the points in the boxes above	9
Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on t	he first page
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
in 3.0. Does the landscape have the potential to support the hydrologic functions of the site:	
R 5.1. Is the stream or river adjacent to the wetland downcut? Yes = 0 No = 1	0
R 5.2. Does the up-gradient watershed include a UGA or incorporated area? Yes = 1 No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams? Yes = $0 \text{ No} = 1$	0
k 5.5. is the up-gradient stream of fiver controlled by dams:	Ū
Total for R 5 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 3 = H X 1 or 2 = M 0 = L Record the rating on t	he first page
D.C.O. And the handred aris for atting a grantided by the other relations to a sixt 2	
R 6.0. Are the hydrologic functions provided by the site valuable to society?	
R 6.1. Distance to the nearest areas downstream that have flooding problems?	
Choose the description that best fits the site.	
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to	
human or natural resources (e.g., houses or salmon redds) points = 2	
Surface flooding problems are in a sub-basin farther down-gradient points = 1	2
No flooding problems anywhere downstream points = 0	
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0
Yes = 2 No = 0	
Total for R 6 Add the points in the boxes above	2
· ·	
Rating of Value If score is: X 2-4 = H 1 = M 0 = L Record the rating on t	he tirst paae

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ___Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 X Emergent Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: __The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 _Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points 2 X Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points 2

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
\underline{X} Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
X Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	4
Total for H 1 Add the points in the boxes above	10
Rating of Site Potential If score is:15-18 = H X_7-14 = M0-6 = L Record the rating on	the first page

H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land uses)/2] 10 = 90 If total accessible habitat is: $> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 320-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 3 < 10% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 80 + [(% moderate and low intensity land uses)/2]22 = 77 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 3 Undisturbed habitat < 10% of 1 km Polygon points = 0H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2)0 ≤ 50% of 1 km Polygon is high intensity points = 0Total for H 2 Add the points in the boxes above 6

Rating of Landscape Potential If score is: X 4-6 = H ____1-3 = M ____<1 = L

Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only that applies to the wetland being rated.</i>	the highest score	
Site meets ANY of the following criteria:	points = 2	
 It has 3 or more priority habitats within 100 m (see next page) It provides habitat for Threatened or Endangered species (any plant or animal on the state) It is mapped as a location for an individual WDFW priority species It is a Wetland of High Conservation Value as determined by the Department of Natural It has been categorized as an important habitat site in a local or regional comprehensive Shoreline Master Plan, or in a watershed plan 	Resources	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	
Site does not meet any of the criteria above	points = 0	

Rating of Value If score is: X 2 = H ___1 = M ___0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Watland Time	Catagogg
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	6-4-1
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	Cut. I
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	
<u> </u>	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	-
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. II
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	

Wetland name or number	
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RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 3b	Date of site visit: <u>8/31/2015</u>
Rated by <u>K. Biafora; B. Haddaway</u>	_Trained by Ecology? <u>X</u> YesNo Date of training <u>9/201</u> 4
HGM Class used for rating Riverine	Wetland has multiple HGM classes?Y XN
NOTE: Form is not complete without Source of base aerial photo/ma	p NAIP 2009
OVERALL WETLAND CATEGORY <u>I</u>	(based on functions X or special characteristics X _)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27
 Category II – Total score = 20 - 22
 Category III – Total score = 16 - 19
 Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
		Circle the appropriate ratings								
Site Potential	H	М	L	H	М	L	Н	M	L	
Landscape Potential	Н	M	L	Н	M	L	Н	М	L	
Value	H	M	L	H	M	L	H	М	L	TOTAL
Score Based on Ratings		8			8			8		24

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland of High Conservation Value		I
Bog	I	
Mature Forest	I	
Old Growth Forest		I
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	3-1
Hydroperiods	H 1.2	3-1
Ponded depressions	R 1.1	3-1
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	3-1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	3-1
Width of unit vs. width of stream (can be added to another figure)	R 4.1	3-2
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	3-2
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	4

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

4	A .1 . 1	1 11		11 .	11 111	. 1 . (1	. 17
	Aro tho water	INVALC IN THA	Antira linit i	ICHALLY CONF	TALLAA NW FIAAC	OVCONT Aliring fl	$\alpha \alpha \alpha c \lambda$
1.	ALC LIIC WALEL	icveis ili uie	chure unit i	isuany com	.i oneu ov uues	except during fl	.oous:

NO - go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO - go to 3

YES - The wetland class is Flats

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - ___The wetland is on a slope (*slope can be very gradual*),
 - ____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - ___The water leaves the wetland **without being impounded**.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ____The overbank flooding occurs at least once every 2 years.

NO - go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS			
Water Quality Functions - Indicators that the site functions to improve water quality			
R 1.0. Does the site have the potential to improve water quality?			
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:			
Depressions cover $>$ $^3/_4$ area of wetland points = 8			
Depressions cover > ½ area of wetland points = 4			
Depressions present but cover < ½ area of wetland points = 2	8		
No depressions present points = 0			
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, not Cowardin classes)			
Trees or shrubs $> \frac{2}{3}$ area of the wetland points = 8			
Trees or shrubs $> \frac{1}{3}$ area of the wetland points = 6			
Herbaceous plants (> 6 in high) > 2 / ₃ area of the wetland points = 6			
Herbaceous plants (> 6 in high) > $\frac{1}{3}$ area of the wetland points = 3	6		
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland points = 0			
Total for R 1 Add the points in the boxes above	14		
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the	he first page		
R 2.0. Does the landscape have the potential to support the water quality function of the site?			
R 2.1. Is the wetland within an incorporated city or within its UGA? Yes = $2 \text{ No} = 0$	0		
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area? Yes = 1 No = 0	1		
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years? Yes = $1 \text{ No} = 0$	1		
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	0		
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources Yes = 1 No = 0	0		
Total for R 2 Add the points in the boxes above	2		
Rating of Landscape Potential If score is: 3-6 = H X 1 or 2 = M 0 = L Record the rating on to	he first page		
R 3.0. Is the water quality improvement provided by the site valuable to society?			
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?			
Yes = 1 No = 0	1		
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	1		
Yes = 1 No = 0	<u> </u>		
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (answer	2		
YES if there is a TMDL for the drainage in which the unit is found) Yes = $2 \text{ No} = 0$			
Total for R 3 Add the points in the boxes above	4		

Rating of Value If score is: X 2-4 = H 1 = M 0 = L

Record the rating on the first page

wedana name or number	
RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS	
Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion	1
R 4.0. Does the site have the potential to reduce flooding and erosion?	
R 4.1. Characteristics of the overbank storage the wetland provides:	
Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the	
stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average	
width of stream between banks).	
If the ratio is more than 20 points = 9	
If the ratio is 10-20 points = 6	
If the ratio is 5-<10 points = 4	
If the ratio is 1-<5 points = 2	9
If the ratio is < 1 points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large woody debris as forest or	
shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person	
height. These are <u>NOT Cowardin</u> classes).	
Forest or shrub for $> \frac{1}{3}$ area OR emergent plants $> \frac{2}{3}$ area points = 7	
Forest or shrub for $> \frac{1}{10}$ area OR emergent plants $> \frac{1}{3}$ area points = 4	7
Plants do not meet above criteria points = 0	
Total for R 4 Add the points in the boxes above	16
Rating of Site Potential If score is: X 12-16 = H 6-11 = M 0-5 = L Record the rating on the	ne first page
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
	0
R 5.1. Is the stream or river adjacent to the wetland downcut? Yes = 0 No = 1	0
R 5.2. Does the up-gradient watershed include a UGA or incorporated area? Yes = 1 No = 0	1
· ·	
R 5.3. Is the up-gradient stream or river controlled by dams? Yes = 0 No = 1	0
Total for R 5 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 3 = H X 1 or 2 = M 0 = L Record the rating on the	ne first nage
Record the ruting on the	ic jiist page
R 6.0. Are the hydrologic functions provided by the site valuable to society?	
R 6.1. Distance to the nearest areas downstream that have flooding problems?	
Choose the description that best fits the site.	
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to	
human or natural resources (e.g., houses or salmon redds) points = 2	
Surface flooding problems are in a sub-basin farther down-gradient points = 1	2
No flooding problems anywhere downstream points = 0	2
R.6.2. Has the site been identified as important for flood storage or flood convoyance in a regional flood control plan?	0
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for R 6 Add the points in the boxes above	2
Rating of Value If score is: X 2-4 = H 1 = M 0 = I Record the rating on the	o first nage

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ___Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 X Emergent X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: __The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 2 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 _Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points 2 X Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 2 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points 3

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
\underline{X} Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
X Standing snags (dbh > 4 in) within the wetland	
X Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	5
Total for H 1 Add the points in the boxes above	14
Rating of Site Potential If score is:15-18 = H X_7-14 = M0-6 = L Record the rating on	the first page

H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 50 + [(% moderate and low intensity land uses)/2] 25 = 75 % If total accessible habitat is: $> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 320-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 3 < 10% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 50 + [(% moderate and low intensity land uses)/2]25 = 75 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 2 Undisturbed habitat < 10% of 1 km Polygon points = 0H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2)0 ≤ 50% of 1 km Polygon is high intensity points = 0Total for H 2 Add the points in the boxes above 5

Rating of Landscape Potential If score is: X 4-6 = H ____1-3 = M ____<1 = L

Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the higher that applies to the wetland being rated. Site meets ANY of the following criteria: — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal it is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan	oints = 2 eral lists) s
	oints = 1
Site does not meet any of the criteria above po	oints = 0

Rating of Value If score is: X 2 = H 1 = M 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

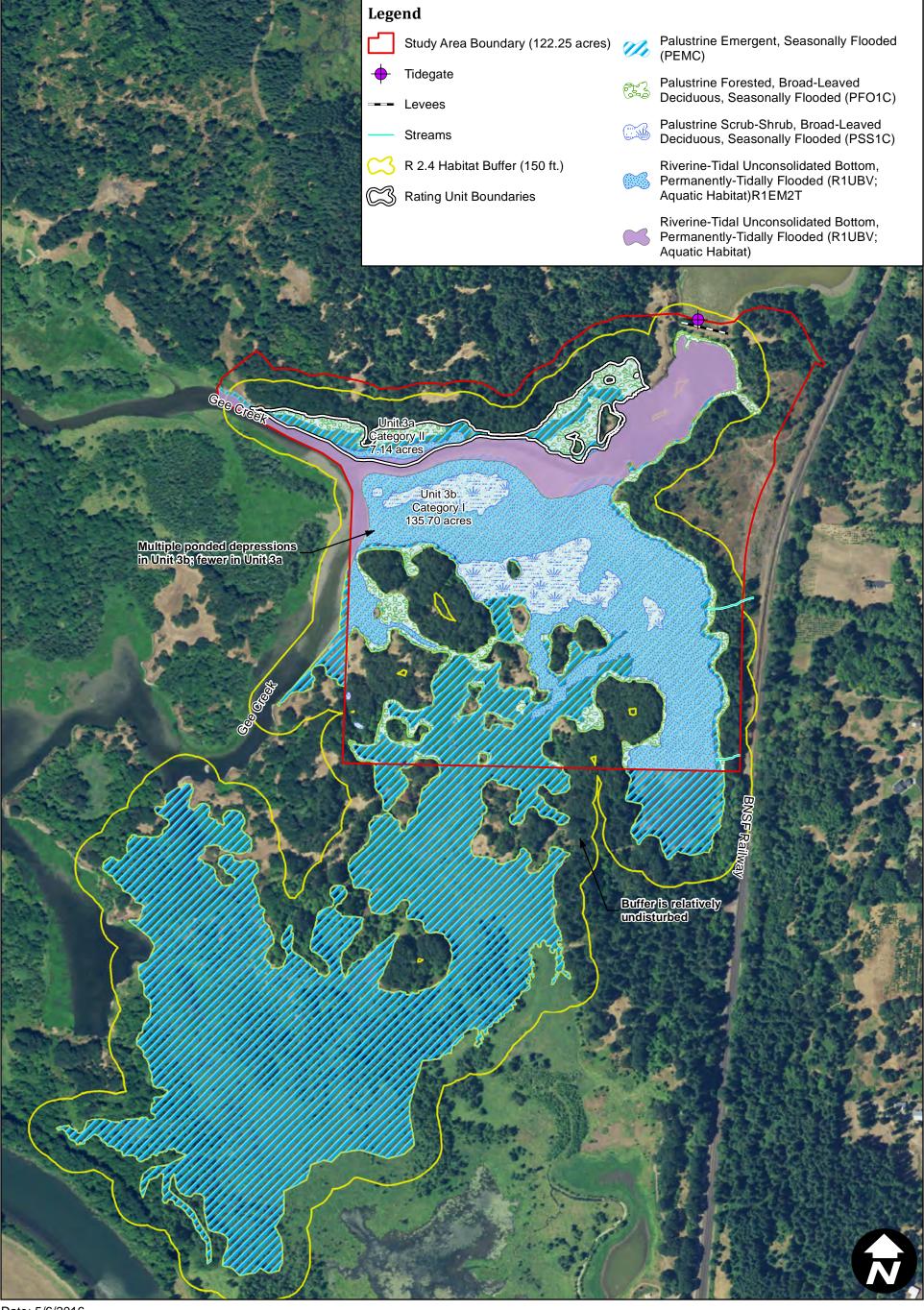
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	<u> </u>
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i>, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below.</i> If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No - Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	-
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. II
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. III
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	

Wetland name or number	
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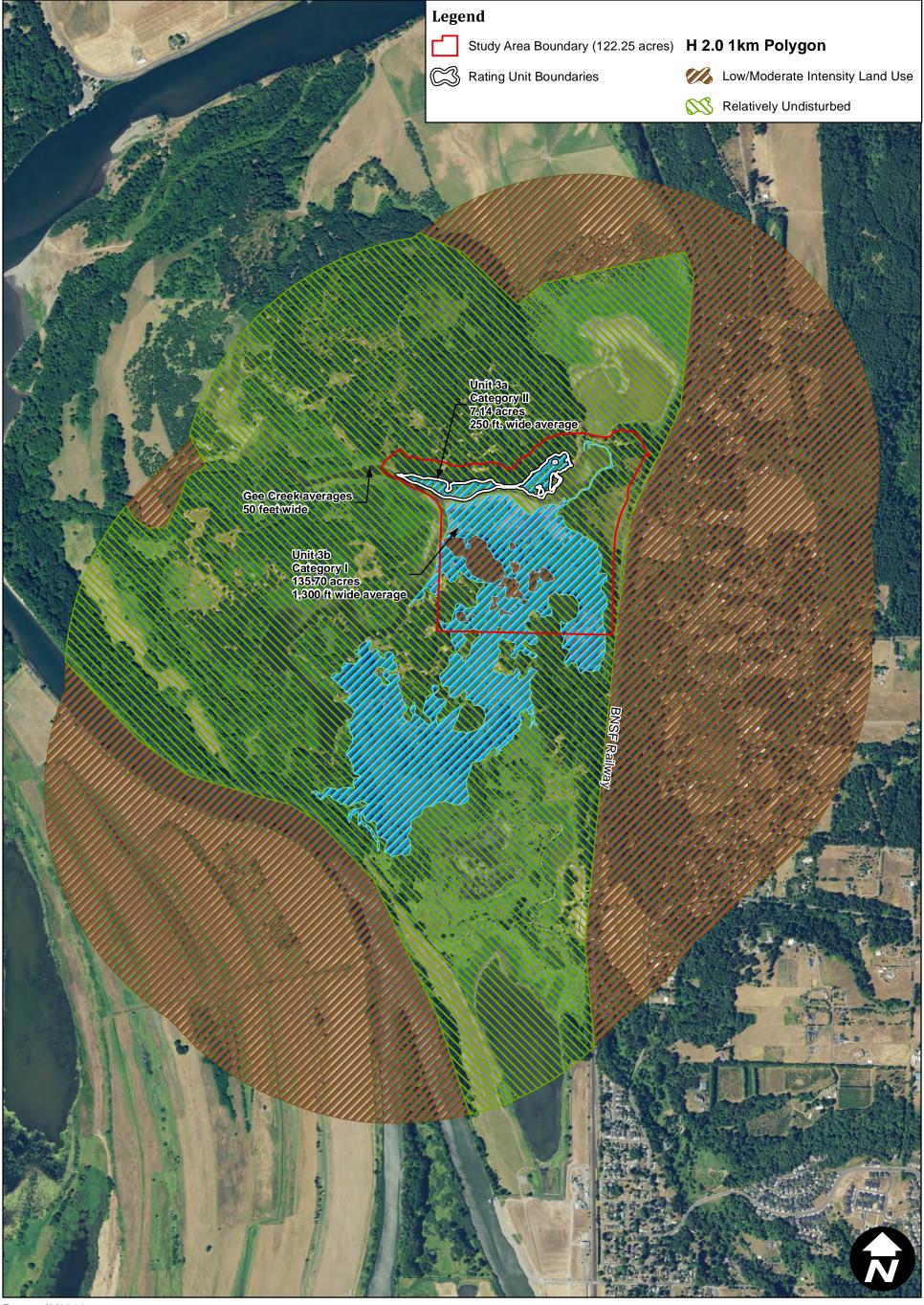


Date: 5/6/2016 Scale: 1 inch = 550 feet Aerial Source: USDA, NAIP, 2015

Appendix B: Figure 3-1. Wetland Rating Map



Plas Newydd Farm Wetland Delineation Report



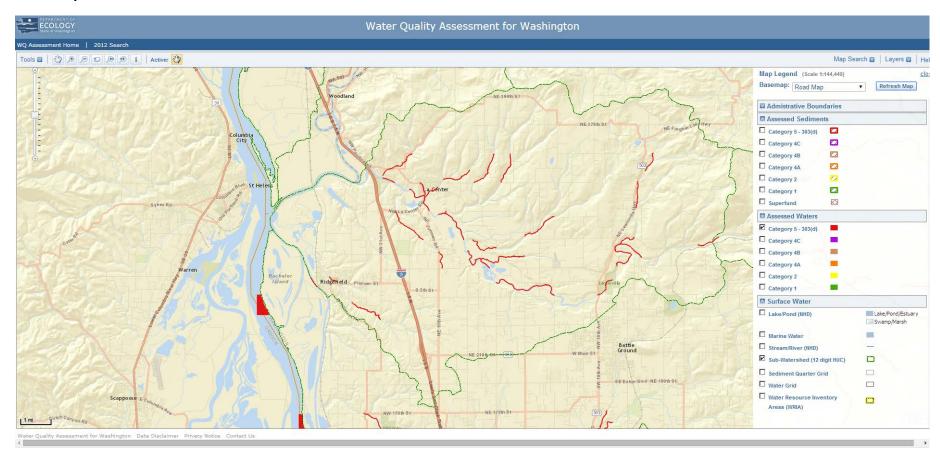
Date: 5/6/2016 Scale: 1 inch = 550 feet Aerial Source: USDA, NAIP, 2015

Appendix B: Figure 3-2. Wetland Rating Map



Plas Newydd Farm Wetland Delineation Report

303d Map



TDML List



Appendix C: Site Photographs

Photo Date: April 23 and 24, 2014



Photo point 1. Photo 1. From the shoreline of the Lewis River looking 150° at reed canarygrass-colonial bentgrass palustrine emergent (PEM) wetland.



Photo point 1. Photo 3. From the shoreline of the Lewis River looking 35° upstream at the boundary of PEM wetland and R1EMR wetland.



Photo point 1. Photo 2. From the shoreline of the Lewis River looking 295° toward water and boundary of PEM wetland and inundated non-persistent riverine (R1EMR) wetland.



Photo point 2. Photo 1. From the northeastern section of the study site looking 220° at black cottonwood-Oregon ash palustrine forested (PFO) wetland with a slough sedge understory.



Photo point 2. Photo 2. From the northeastern section of the study site looking 50° at black cottonwood-Oregon ash PFO wetland with a reed canarygrass understory.



Photo point 3. Photo 1. From the intermittently connected portion of the slough associated with the Lewis River looking 10° toward reed canarygrass-slough sedge PEM wetland.



Photo point 3. Photo 2. From the slough looking 190° toward the mouth of the intermittent slough and reed canarygrass-slough sedge PEM wetland.



Photo point 4. Photo 1. From the mouth of the intermittent slough looking 270° at R1EMR wetland and the Columbia River.



Photo point 4. Photo 2. From the mouth of the intermittent slough looking 190° at R1EMR wetland.



Photo point 4. Photo 3. From the mouth of the intermittent slough looking 0° at R1EMR wetland.



Photo point 4. Photo 4. From the mouth of the intermittent slough looking 90° up the channel at bentgrass- dominated PEM wetland.



Photo point 5. Photo 1. From the eastern bank of the slough looking 310 ° at reed canarygrass and Himalayan blackberry vegetation along the banks.



Photo point 6. Photo 1. From a sandy deposit in the northwestern section of the study site



Photo point 8. Photo 1. From below ordinary high water mark looking 100° at mixed willowreed canarygrass palustrine scrub-shrub (PSS) wetland.



Photo point 7. Photo 1. From near the shore of the Lewis River in the northwestern portion of the study site looking 210° at bentgrass-dominated PEM wetland.



Photo point 8. Photo 2. From below ordinary high water mark looking 205° at mixed willowreed canarygrass PSS wetland.



Photo Date: April 23 and 24, 2014

Photo point 8. Photo 3. From below ordinary high water mark looking 100° at willow-creeping bentgrass PSS wetland.



Photo point 9. Photo 2. From upland ridge formation in the northern section of the study site looking 120° at PFO wetland downslope and Data Plot 8.



Photo point 9. Photo 1. From upland ridge formation in the northern section of the study site looking 325° at black cottonwood-Oregon ash upland forest with snowberry and blackberry.



Photo point 10. Photo 1. From the north bank of the disconnected slough looking 165° at redosier dogwood vegetation and open water of the slough.



Photo point 11. Photo 1. From the northwestern section of the study site looking 55° at PFO wetland with a reed canarygrass understory.



Photo point 11. Photo 2. From the northwestern section of the study site looking 140° at PFO wetland with a reed canarygrass understory.



Photo point 12. Photo 1. From the shoreline of the Lewis River in the northern section of the study site looking 205° upstream at the slough as a heavy rain falls.



Photo point 12. Photo 2. From the shoreline of the Lewis River in the northern section of the study site looking 25° at the inlet of the slough.



Photo point 13. Photo 1. From near the northeastern boundary of the study site looking 240° at PFO wetland with a reed canarygrass understory.

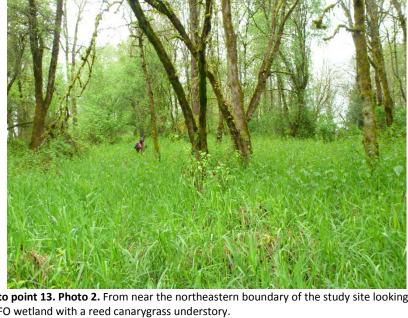


Photo point 13. Photo 2. From near the northeastern boundary of the study site looking 25° at PFO wetland with a reed canarygrass understory.



Photo point 14. Photo 1. From the northern section of the study site looking 200° at black cottonwood-Oregon ash mosaic forest with a shrubby understory including snowberry and blackberry.



Photo point 14. Photo 2. From the northern section of the study site looking 30° at black cottonwood-Oregon ash mosaic forest with a shrubby understory including snowberry and blackberry.



Photo point 15. Photo 1. From the northeastern extent of the study site looking 180° at black cottonwood-Oregon ash upland forest with a dense stinging nettle understory.



Photo point 15. Photo 2. From the northeastern extent of the study site looking 255° at black cottonwood-Oregon ash upland forest with a dense stinging nettle understory.



Photo point 16. Photo 1. From the southeastern section of the study site looking 145° at a slough backwater and dense, shrubby vegetation within the PFO wetland.



Photo point 16. Photo 2. From the southeastern section of the study site looking 255° at the dense, shrubby vegetation of the PFO wetland.



Photo point 17. Photo 1. From the levee along the southeastern boundary of the study site looking 340° at an impounded area outside of the levee.



Photo point 18. Photo 1. From the levee north of Photo Point 17 looking 350° at an impounded area outside of the levee.

Photo Date: May 13, 2014



Photo point 19. Photo 1. From the south end of Long Meadow looking 0° at meadow foxtaildominated PEM wetland.



Photo point 19. Photo 2. From the south end of Long Meadow looking 45° at meadow foxtail-dominated PEM wetland. Pacific willow-reed canarygrass PSS wetland in background.

Photo Date: May 13, 2014



Photo point 19. Photo 3. From the south end of Long Meadow looking 90° at transition between PEM wetland and mosaic pastureland (visible as topographic break). Upland forest is in background.



Photo point 20. Photo 1. From the ridge in the central portion of Long Meadow looking 0° at the transition of meadow foxtail PEM wetland (right) to mosaic pasture (center) to upland pasture (left).



Photo point 20. Photo 2. From the ridge in the central portion of Long Meadow looking 90° at mosaic pasture grading down to PEM wetland and Pacific willow PSS wetland.



Photo point 20. Photo 3. From the ridge in the central portion of Long Meadow looking 180° at mosaic pasture grading down to PEM wetland and Pacific willow PSS wetland.



Photo point 20. Photo 4. From the ridge in the central portion of Long Meadow looking 270° at upland pasture.



Photo point 21. Photo 2. From near the shoreline of the Columbia River looking 90° at upland forest.



Photo point 21. Photo 1. From near the shoreline of the Columbia River looking 0° at upland forest with cottonwood and Himalayan blackberry.



Photo point 21. Photo 3. From near the shoreline of the Columbia River looking 180° at upland forest.



Photo point 21. Photo 4. From near the shoreline of the Columbia River looking 270° beyond upland forest to R1EMR wetland and the waters of the Columbia.



Photo point 22. Photo 2. From the banks of Gee Creek looking 90° at the channel and riparian vegetation.



Photo point 22. Photo 1. From the banks of Gee Creek looking 0° with mosaic pastureland along bank ridges and meadow foxtail PEM wetland beyond. Upland forest is in background.



Photo point 22. Photo 3. From the banks of Gee Creek looking 270° at meadow foxtail PEM wetland with Oregon ash PFO wetland in background.



Photo point 23. Photo 1. From the northeastern section of the study site looking 110° at upland forest.



Photo point 23. Photo 3. From the northeastern section of the study site looking 150° at upland forest.



Photo point 23. Photo 2. From the northeastern section of the study site looking 225° at upland forest.



Photo point 24. Photo 1. From the shoreline of the Lewis River looking 240° at a small area of R1EMR wetland.



Photo point 24. Photo 2. From the shoreline of the Lewis River looking 240° at a reed canarygrass understory of PFO wetland.



Photo point 26. Photo 1. From the west bank of the slough looking 105° at dense dogwood and reed canarygrass vegetation and open water.



Photo point 25. Photo 1. From the northeastern section of the study site looking 330° at upland forest.



Photo point 27. Photo 1. From the northeastern section of the study site looking 350° at a depressional area with standing water within PFO wetland.



Photo point 28. Photo 1. From the north end of Long Meadow looking 245° at Pacific willow-reed canarygrass PSS wetland.



Photo point 28. Photo 3. From the north end of Long Meadow looking 60° at Pacific willow-reed canarygrass PSS wetland.



Photo point 28. Photo 2. From the north end of Long Meadow looking 170° at Pacific willow-reed canarygrass PSS wetland.



Photo point 29. Photo 1. From the central section of Long Meadow looking 200° at mosaic pastureland vegetation.



Photo point 29. Photo 2. From the central section of Long Meadow looking 10° at mosaic pastureland vegetation.



Photo point 30. Photo 2. From upland ridge in the southwestern section of Long Meadow looking 0° at upland pasture grass vegetation along ridge.



Photo point 30. Photo 1. From upland ridge in the southwestern section of Long Meadow looking 40° at upland pasture grading into PEM and PSS wetland.



Photo point 30. Photo 3. From upland ridge in the southwestern section of Long Meadow looking 285° at upland pasture grading into PEM and PFO wetland.



Photo point 30. Photo 4. From upland ridge in the southwestern section of Long Meadow looking 170° at upland pasture grading into mosaic pasture along ridge.



Photo point 31. Photo 2. From the north bank of Gee Creek looking 75° at the south bank and PFO wetland beyond.



Photo point 31. Photo 1. From the north bank of Gee Creek looking 150° at PFO wetland continuing beyond the study site boundary.



Photo point 31. Photo 3. From the north bank of Gee Creek looking 10° at PFO wetland.



Photo point 32. Photo 1. From the southern section of the study site looking 340° at PEM wetland and standing water.



Photo point 33. Photo 1. From the south-central section of the study site looking 0° at PSS wetland and standing water.



Photo point 32. Photo 2. From the southern section of the study site looking 240° at PEM and PSS wetland.



Photo point 33. Photo 2. From the south-central section of the study site looking 175° at PSS wetland.



Photo point 33. Photo 3. From the south-central section of the study site looking 70° at PSS wetland.



Photo point 34. Photo 1. From near the convergence of the Lewis and Columbia Rivers looking 285° at mixed willow-creeping Jenny PSS wetland.



Photo point 35. Photo 1. From water control structure #1 at the west end of the rock-fill dam looking 340° at impounded water and water pepper and marsh seedbox wetland vegetation.



Photo point 35. Photo 2. From water control structure #1 at the west end of the rock-fill dam looking 140° at impounded water and reed canarygrass-creeping spikerush PEM wetland.

Photo Date: July 18, 2014



Photo point 35. Photo 3. From water control structure #1 at the west end of the rock-fill dam looking 65° along the dam.



Photo point 36. Photo 1. From the east end of the rock-fill dam looking 105° at reed canarygrass-creeping spikerush PEM wetland.



Photo point 36. Photo 2. From the east end of the rock-fill dam looking 300° at reed canarygrass-creeping spikerush PEM wetland.



Photo point 37. Photo 1. From water control structure #2 at the east end of the rock-fill dam looking 340° at impounded water and water pepper and marsh seedbox wetland vegetation.

Photo Date: July 18, 2014



Photo point 37. Photo 2. From water control structure #2 at the east end of the rock-fill dam looking 165° at impounded water and water pepper and marsh seedbox wetland vegetation.



Photo point 38. Photo 2. From the southeastern section of the study site looking 55° at Oregon ash-reed canarygrass PFO wetland.



Photo point 38. Photo 1. From the southeastern section of the study site looking 210° at Pacific willow-reed canarygrass PSS wetland.



Photo point 39. Photo 1. From the southeastern section of the study site looking 280° at Oregon oak-Indian plum-Himalayan blackberry upland forest.



Photo point 39. Photo 2. From the southeastern section of the study site looking 200° at Oregon ash-Indian plum-Himalayan blackberry upland forest.



Photo point 40. Photo 2. From the southeastern section of the study site looking 265° at open-canopy Oregon ash-reed canarygrass PFO wetland.



Photo point 40. Photo 1. From the southeastern section of the study site looking 0° at open-canopy Oregon ash-reed canarygrass PFO wetland.



Photo point 40. Photo 3. From the southeastern section of the study site looking 160° at open-canopy Oregon ash-reed canarygrass PFO wetland.



Photo point 41. Photo 1. From the southeastern section of the study site looking 225° at closed-canopy Oregon ash PFO wetland.



Photo point 42. Photo 1. From the southeastern section of the study site looking 80° at Gee Creek.



Photo point 41. Photo 2. From the southeastern section of the study site looking 225° at closed-canopy Oregon ash PFO wetland.

Photographs continued on next page.



Photo point 43. Photo 1. From the southeastern end of the study site looking 120° at culvert outfall at the end of the waterfowl ponds draining into Gee Creek.



Photo point 44. Photo 1. From the southeastern section of the study site looking 205° at wapato and reed canarygrass vegetated wetland along Gee Creek.



Photo point 44. Photo 2. From the southeastern section of the study site looking 75° at wapato and reed canarygrass vegetated wetland along Gee Creek.

Photographs continued on next page.



Photo point 1. Photo 1. From the ditch running east-west along the southern end of Upper Front Field looking 85° upstream.



Photo point 1. Photo 2. From the ditch running east-west along the southern end of Upper Front Field looking 240° downstream.



Photo point 1. Photo 3. From the ditch running along the southern end of Upper Front Field looking 325° at colonial bentrgrass-tall fescue-velvetgrass upland pasture.



Photo point 1. Photo 4. From the ditch running along the southern end of Upper Front Field looking 325° at tall fescue-velvetgrass palustrine emergent (PEM) wetland.



Photo point 2. Photo 1. From the central section of Upper Front Field looking 160° at tall fescue-velvetgrass PEM wetland.



Photo point 2. Photo 2. From the central section of Upper Front Field looking 250° at colonial bentrgrass-tall fescue-velvetgrass upland pasture.



Photo point 2. Photo 3. From the central section of Upper Front Field looking 350° toward Lewis River levee and colonial bentrgrass-tall fescue-velvetgrass upland pasture.



Photo point 2. Photo 4. From the central section of Upper Front Field looking 70° toward the eastern study area boundary and colonial bentrgrass-tall fescue-velvetgrass upland pasture.



Photo point 3. Photo 1. From the crest of the Lewis River levee looking 175° at Upper Front Field.



Photo point 3. Photo 2. From the crest of the Lewis River levee looking 275° down gravel access road.



Photo point 3. Photo 2. From the crest of the Lewis River levee looking 340° at the Lewis River.



Photo point 3. Photo 4. From the crest of the Lewis River levee looking 80° up gravel access road.



Photo point 4. Photo 1. From the southwestern section of Upper Front Field looking 160° at tall fescue-velvetrgrass PEM wetland.



Photo point 4. Photo 2. From the southwestern section of Upper Front Field looking 80° at colonial bentgrass-tall fescue-velvetrgrass upland pasture.



Photo point 4. Photo 3. From the southwestern section of Upper Front Field looking 340° at colonial bentgrass-tall fescue-velvetrgrass upland pasture.



Photo point 4. Photo 4. From the southwestern section of Upper Front Field looking 240° at tall fescue-velvetrgrass PEM wetland.



Photo point 5. Photo 1. From the southeastern section of Lower Front Field looking 240° at colonial bentrgrass-velvetgrass PEM wetland.



Photo point 5. Photo 2. From the southeastern section of Lower Front Field looking 350° toward Lewis River levee and colonial bentrgrass-velvetgrass PEM wetland.



Photo point 5. Photo 2. From the southeastern section of Lower Front Field looking 130° at colonial bentrgrass-velvetgrass PEM wetland.

Photographs continued on next page.



Photo point 6. Photo 1. From the northern section Lower Front Field looking 150 ° at colonial bentrgrass-velvetgrass PEM wetland.



Photo point 6. Photo 2. From the northern section Lower Front Field looking 70 ° at colonial bentrgrass-tall fescue-velvetgrass upland pasture.

Photo Date: June 26, 2014



Photo point 7. Photo 1. From the top of the ditch running between Lower Front Field and Petty Field looking at reed canarygrass PEM wetland.



Photo point 8. Photo 1. From the southwestern section of Mid Field looking 165° at common rush-velvetgrass PEM wetland.



Photo point 8. Photo 2. From the southwestern section of Mid Field looking 245° at common rush-velvetgrass PEM wetland.



Photo point 8. Photo 3. From the southwestern section of Mid Field looking 350° at colonial bentgrass-perennial ryegrass upland pasture.



Photo point 8. Photo 4. From the southwestern section of Mid Field looking 80° at common rush-velvetgrass PEM wetland.



Photo point 9. Photo 1. From northeastern section of Mid Field looking 160° at colonial bentgrass-velvetgrass PEM wetland.



Photo point 9. Photo 2. From northeastern section of Mid Field looking 250° colonial bentgrass-perennial ryegrass upland pasture.



Photo point 9. Photo 4. From northeastern section of Mid Field looking 60° at Pacific willow-reed canarygrass PSS wetland.



Photo point 9. Photo 3. From northeastern section of Mid Field looking 340° at boundary of colonial bentgrass-velvetgrass PEM and Pacific willow-reed canarygrass palustrine scrubshrub (PSS) wetland.



Photo point 10. Photo 1. From the southwestern section of Petty Field looking 135° toward black cottonwood-Oregon ash palustrine forested (PFO) wetland.

Photo Date: June 26, 2014



Photo point 10. Photo 2. From the southwestern section of Petty Field looking 220° toward colonial bentgrass-velvetgrass PEM and black cottonwood-Oregon PFO wetland.



Photo point 10. Photo 3. From the southwestern section of Petty Field looking 290° at upland/wetland boundary and Lewis River levee.



Photo point 10. Photo 4. From the southwestern section of Petty Field looking 450° at colonial bentgrass-velvetgrass PEM wetland



Photo point 11. Photo 1. From the southwestern study area boundary looking 10° at Pacific willow-reed canarygrass PSS wetland.



Photo point 12. Photo 1. From the bigleaf maple-Douglas fir-hazelnut upland forest along the southwestern study area boundary looking 70° at Lancaster Lake.



Photo point 12. Photo 2. From the southwestern study area boundary looking 320° at bigleaf maple-Douglas fir-hazelnut upland forest.



Photo point 12. Photo 3. From the southwestern study area boundary looking 210° at bigleaf maple-Douglas fir-hazelnut upland forest.

Photographs continued on next page.



Photo point 13. Photo 1. From the ditch running along the eastern study area boundary looking 125° downstream and at reed canarygrass PEM wetland.



Photo point 13. Photo 3. From the ditch running along the eastern study area boundary looking 225° at common rush-veletgrass PEM wetland.



Photo point 13. Photo 2. From the ditch running along the eastern study area boundary looking 0° upstream and at reed canarygrass PEM wetland.



Photo point 14. Photo 1. From the southern section of Lake Field looking 140 $^{\circ}$ at Pacific willow-reed canarygrass PSS wetland.

Photo Date: July 3, 2014



Photo point 15. Photo 1. From the southern section of Lake Field looking 65° at fenceline running through PSS wetland.



Photo point 16. Photo 2. From the confluence of 2 ditches at the western boundary of Lake Field looking 185°at semi-permanently flooded pool.



Photo point 15. Photo 2. From the southern section of Lake Field looking 220° at fenceline running through PSS wetland.



Photo point 16. Photo 2. From the western boundary of Lake Field looking 325°at reed canarygrass PEM wetland in south Willow Field.

Photo Date: July 31, 2014



Photo point 17. Photo 1. From north of Lancaster Lake looking 155°at reed canarygrass-smartweed PEM wetland. Note surface water and occasional wapato.



Photo point 17. Photo 2. From north of Lancaster Lake looking 230°at reed canarygrass-smartweed PEM wetland.



Photo point 17. Photo 2. From north of Lancaster Lake looking 85°at reed canarygrass-smartweed PEM wetland.



Photo point 18. Photo 1. From the ditch draining directly into Lancaster Lake looking 290° upstream at reed canarygrass PEM and palustrine aquatic bed (PAB) wetland.

Photo Date: July 31, 2014



Photo point 18. Photo 2. From the ditch draining directly into Lancaster Lake looking 140° downstream at reed canarygrass PEM and PAB wetland.



Photo point 19. Photo 1. From a small upland mound in Willow Field looking 155° at common rush-reed canarygrass PEM wetland.



Photo point 19. Photo 2. From a small upland mound in Willow Field looking 245° at common rush-reed canarygrass PEM wetland.



Photo point 19. Photo 3. From a small upland mound in Willow Field looking 335° at colonial bentgrass-tall fescue-velvetgrass upland pasture.

Photo Date: July 31, 2014



Photo point 19. Photo 4. From a small upland mound in Willow Field looking 80° at colonial bentgrass-velvetgrass PEM wetland.



Photo point 20. Photo 1. From the levee at Gee Creek on the south end of Lancaster Lake looking 15° across the lake.



Photo point 20. Photo 2. From the levee at Gee Creek on the south end of Lancaster Lake looking 190° at Gee Creek south of the study area boundaries.



Photo Date: August 31, 2015

Photo point 1. Photo 1. From Wetland 4 in the southeastern section of the Study Area looking 90° at extensive wapato beds.



Photo point 2. Photo 1. From the southeaster section of the Study Area looking 0° at oakdominated basalt uplands.



Photo point 1. Photo 2. From Wetland 4 the southeastern section of the Study Area looking 340° at uplands consisting of oak-dominated basalt rock outcrop.



Photo point 2. Photo 2. From the southeaster section of the Study Area looking 170° at oak-dominated basalt uplands.



Photo point 3. Photo 1. From the Wetland 4 in the southeastern section of the Study Area looking 45° at reed canarygrass vegetation.



Photo point 3. Photo 3. From the Wetland 4 in the southeastern section of the Study Area looking 240° at dense wapato vegetation.



Photo point 3. Photo 2. From Wetland 4 in the southeastern section of the Study Area looking 320° at flat wapato beds grading abruptly to oak-dominated basalt outcrop.



Photo point 3. Photo 4. From the Wetland 4 in the southeastern section of the Study Area looking 130° at the sharp transition between wetland and upland.



Photo point 4. Photo 1. From Wetland 4 in the central section of the Study Area looking 355° at extensive wapato beds fringed with reed canarygrass.



Photo point 5. Photo 1. From atop a basalt outcrop in the south-central section of the Study Area looking 65° at extensive wapato beds of Wetland 4.



Photo point 4. Photo 2. From Wetland 4 looking 275° along upland/wetland boundary and a series of basalt outcrops protruding into the wetland.



Photo point 6. Photo 1. From atop a basalt outcrop in the south-central section of the Study Area looking 205° at dense reed canarygrass vegetation in Wetland 4.



Photo point 7. Photo 1. From atop a basalt outcrop in the southern section of the Study Area looking 205° toward southern boundary and dense reed canarygrass vegetation in Wetland 4.



Photo point 8. Photo 1. From the northeastern end of the Study Area looking 80° at Gee Creek and upland conifer forest beyond.



Photo point 8. Photo 2. From the northeastern end of the Study Area looking 175° at Gee Creek and upland conifer forest beyond.



Photo point 8. Photo 3. From the northeastern end of the Study Area looking 240° at Oregon ash-forested wetland fringe along Gee Creek (Wetland 3).



Photo point 9. Photo 1. From Wetland 3 at the north end of the Study Area looking 285° at reed canarygrass and wapato wetland fringe along Gee Creek.



Photo point 9. Photo 3. From Wetland 3 at the north end of the Study Area looking 200° across Gee Creek at scrub-shrub wetland (Wetland 4) along the opposite bank.



Photo point 9. Photo 2. From Wetland 3 at the north end of the Study Area looking 250° across Gee Creek at scrub-shrub wetland (Wetland 4) along the opposite bank.



Photo point 9. Photo 4. From Wetland 3 at the north end of the Study Area looking 170° across Gee Creek at wapato beds (Wetland 4) along the opposite bank.



Photo point 10. Photo 1. From Wetland 4 in the northeastern section of the Study Area looking 300° across Gee Creek during high water.



Photo point 10. Photo 3. From Wetland 4 in the northeastern section of the Study Area looking 160° across Gee Creek during high water.



Photo point 10. Photo 2. From Wetland 4 in the northeastern section of the Study Area looking 230° across Gee Creek at scrub-shrub wetland at opposite bank.



Photo point 10. Photo 4. From Wetland 4 in the northeastern section of the Study Area looking 30° at hunter's blind perched on basalt outcrop upland.



Photo point 11. Photo 1. From Stream 1 along the eastern boundary of the Study Area looking 75° upstream.



Photo point 12. Photo 1. From Stream 2 at the southeastern corner of the Study Area looking 90° upstream.



Photo point 11. Photo 2. From Stream 1 along the eastern boundary of the Study Area looking 240° downstream where it flows into Wetland 4.

Photographs continue on next page.



Photo point 13. Photo 1. From Wetland 4 in the south end of the Study Area looking 345° at reed canarygrass vegetation during high water.



Photo point 13. Photo 2. From Wetland 4 in the south end of the Study Area looking 65° at reed canarygrass vegetation during high water



Photo point 13. Photo 3. From Wetland 4 in the south end of the Study Area looking 290° at reed canarygrass vegetation during high water



Photo point 13. Photo 4. From Wetland 4 in the south end of the Study Area looking 255° at reed canarygrass vegetation during high water



Photo point 14. Photo 1. From the southwestern corner of the Study Area looking 110° at depressional wetland area dominated by reed canarygrass.



Photo point 15. Photo 1. From Wetland 4 in the west-central section of the Study Area looking 295° at backwater of Gee Creek during high water.



Photo point 14. Photo 2. From the southwestern corner of the Study Area looking 90° at depressional wetland area.



Photo point 15. Photo 2. From Wetland 4 in the west-central section of the Study Area looking 90° at backwater of Gee Creek during high water.



Photo point 16. Photo 1. From a basalt outcrop in the west-central section of the Study Area looking 75° at Wetland 4 inundated by high waters of Gee Creek.

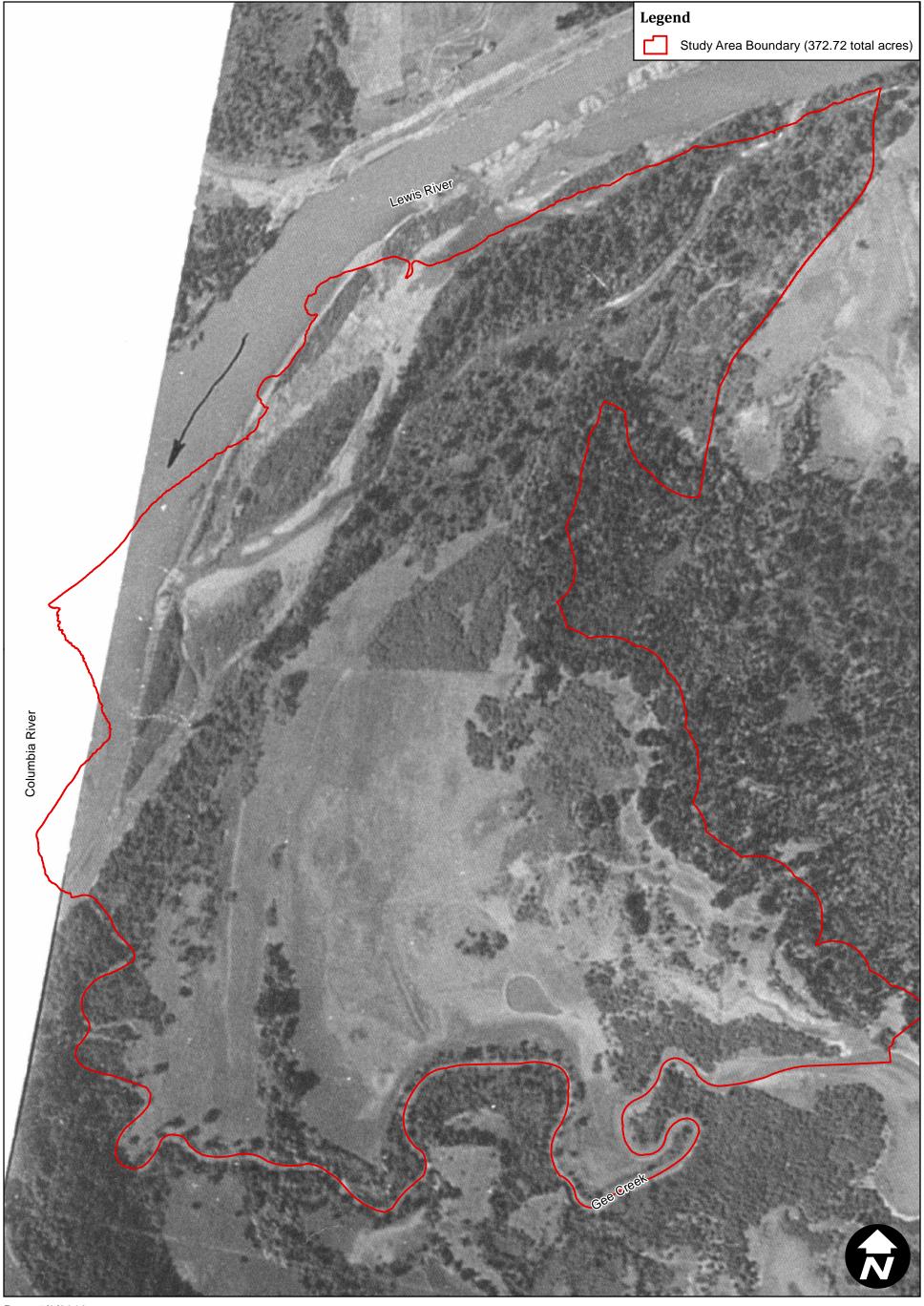


Photo point 16. Photo 2. From a basalt outcrop in the west-central section of the Study Area looking 30° at Wetland 4 and another basalt outcrop



Photo point 16. Photo 3. From a basalt outcrop in the west-central section of the Study Area looking 355° at Wetland 4 inundated by high waters of Gee Creek

Appendix D: Historical Aerial Photographs



Date: 5/6/2016 Scale: 1 inch = 500 feet Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1929: Lewis River and Gee Creek Study Area

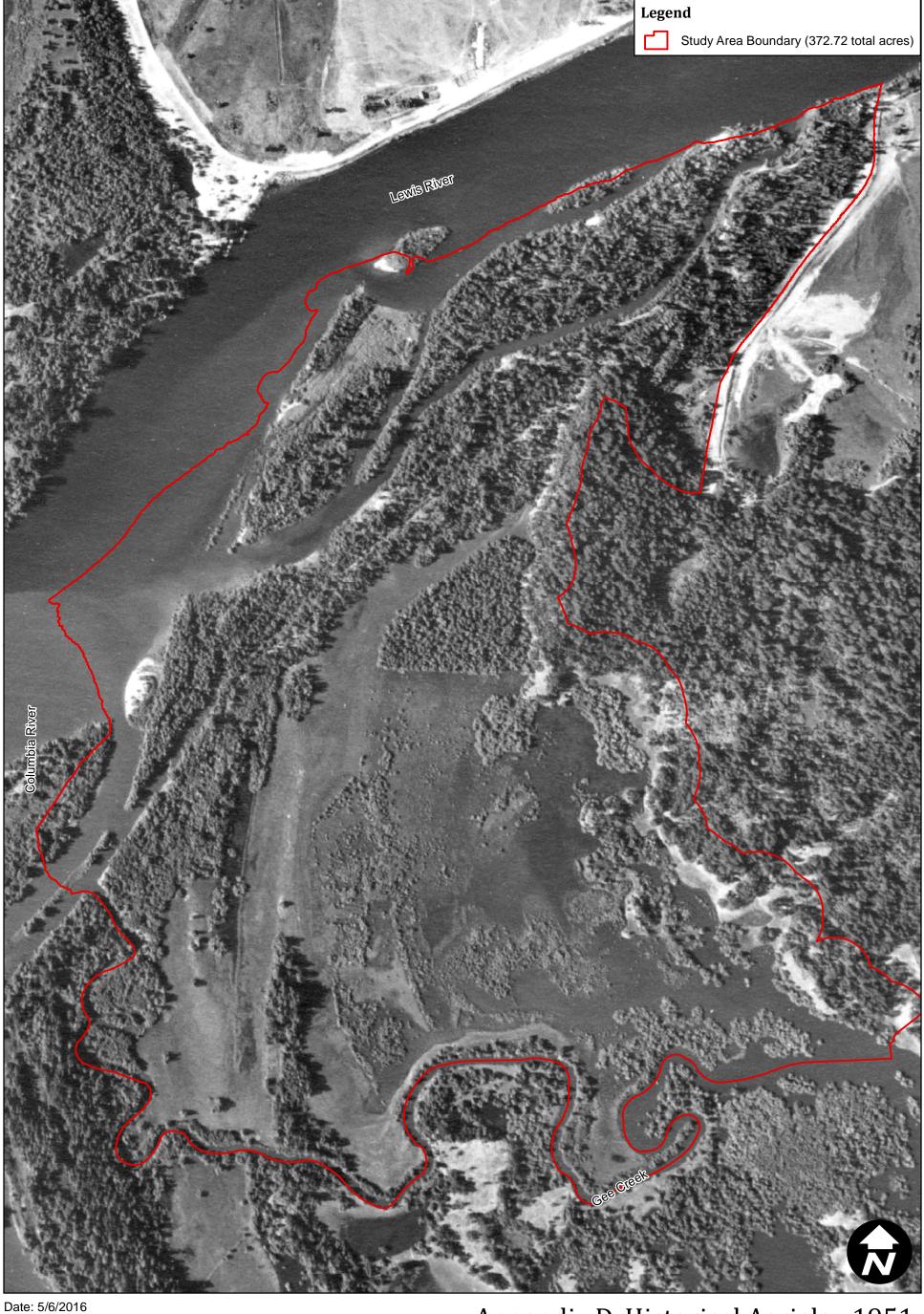


Plas Newydd Farm Wetland Delineation Report



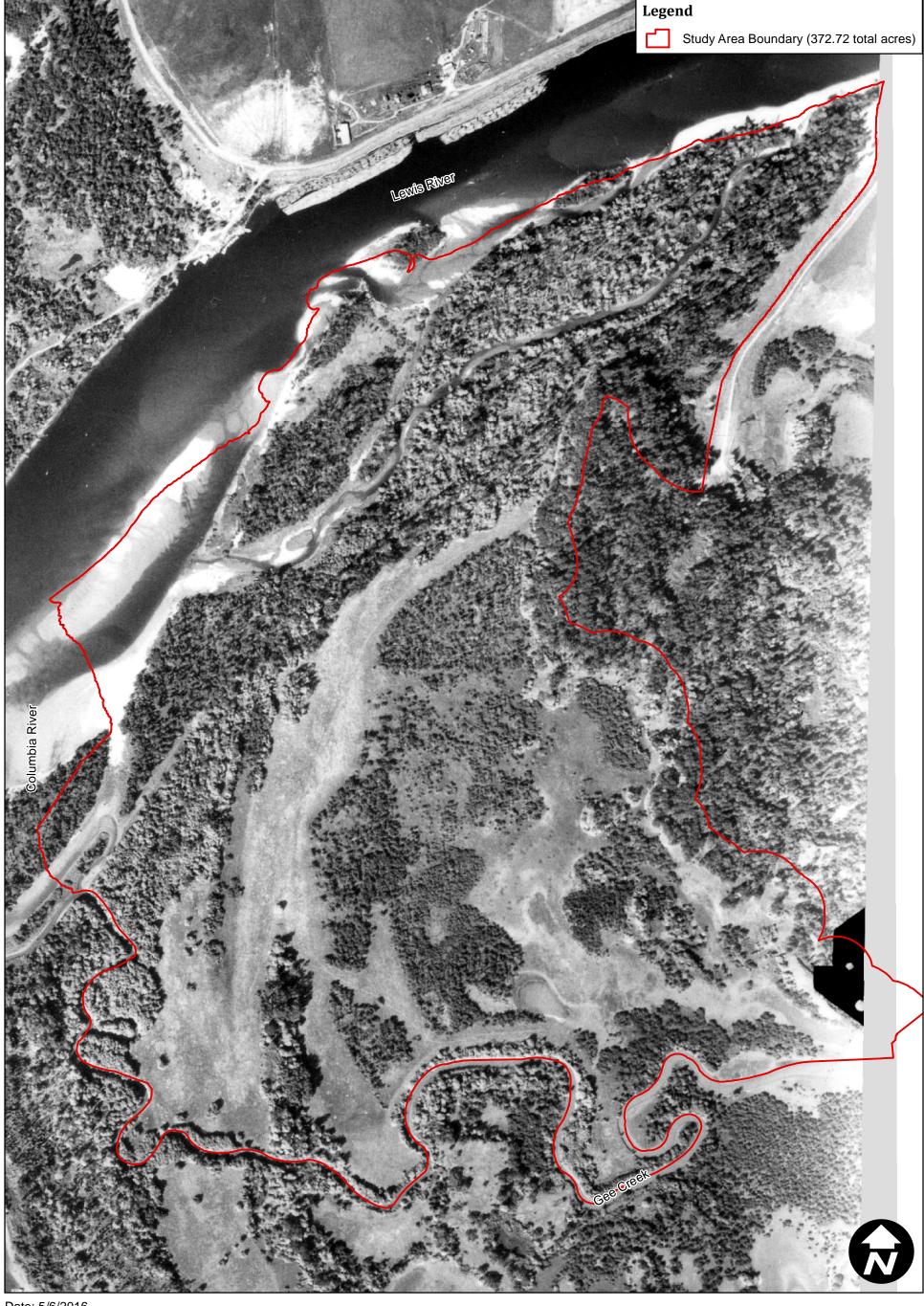
Appendix D. Historical Aerials - 1936: Lewis River and Gee Creek Study Area





Appendix D. Historical Aerials - 1951: Lewis River and Gee Creek Study Area





Date: 5/6/2016

Scale: 1 inch = 500 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1963: Lewis River and Gee Creek Study Area





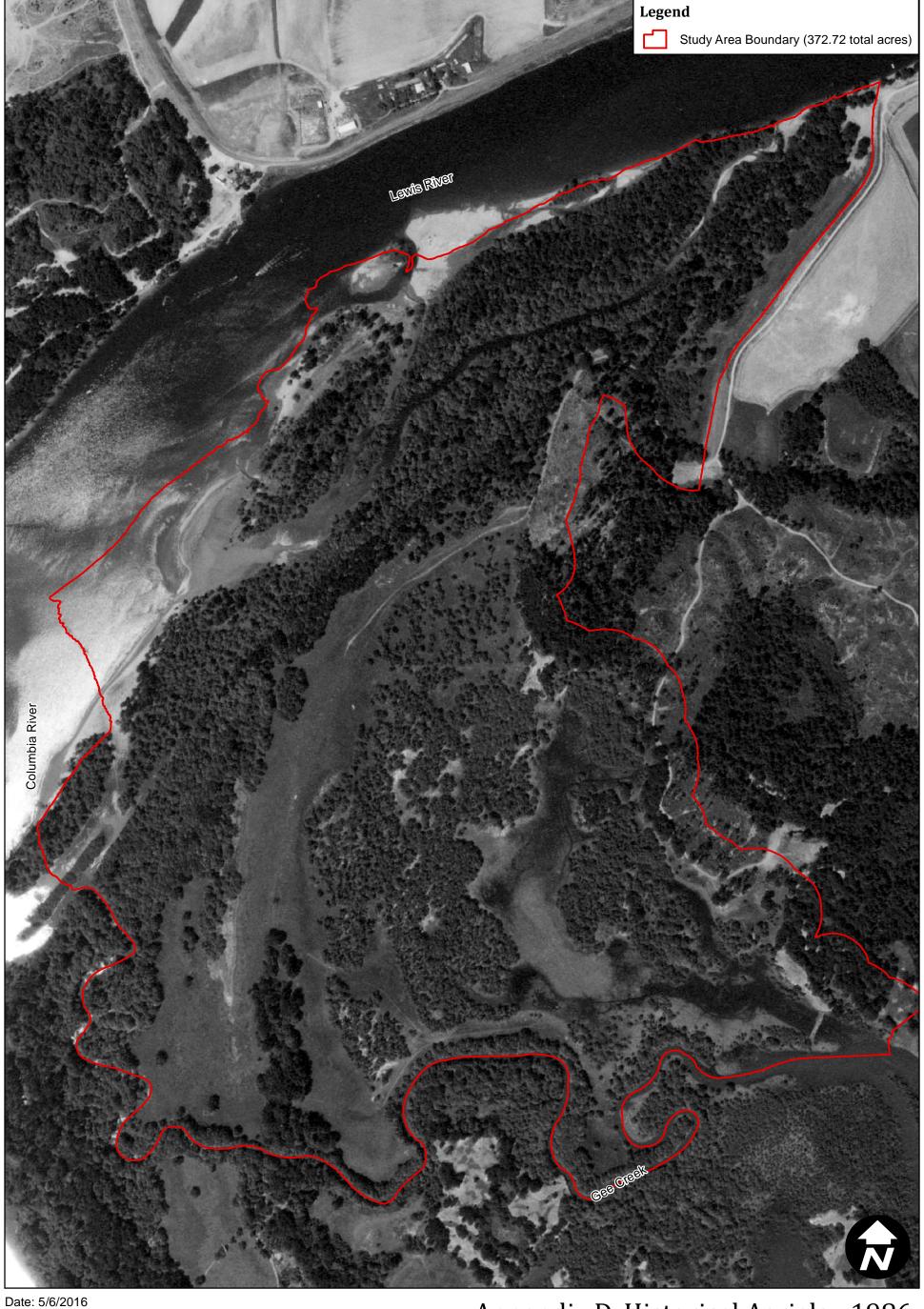
Appendix D. Historical Aerials - 1969: Lewis River and Gee Creek Study Area





Appendix D. Historical Aerials - 1977: Lewis River and Gee Creek Study Area





Appendix D. Historical Aerials - 1986: Lewis River and Gee Creek Study Area

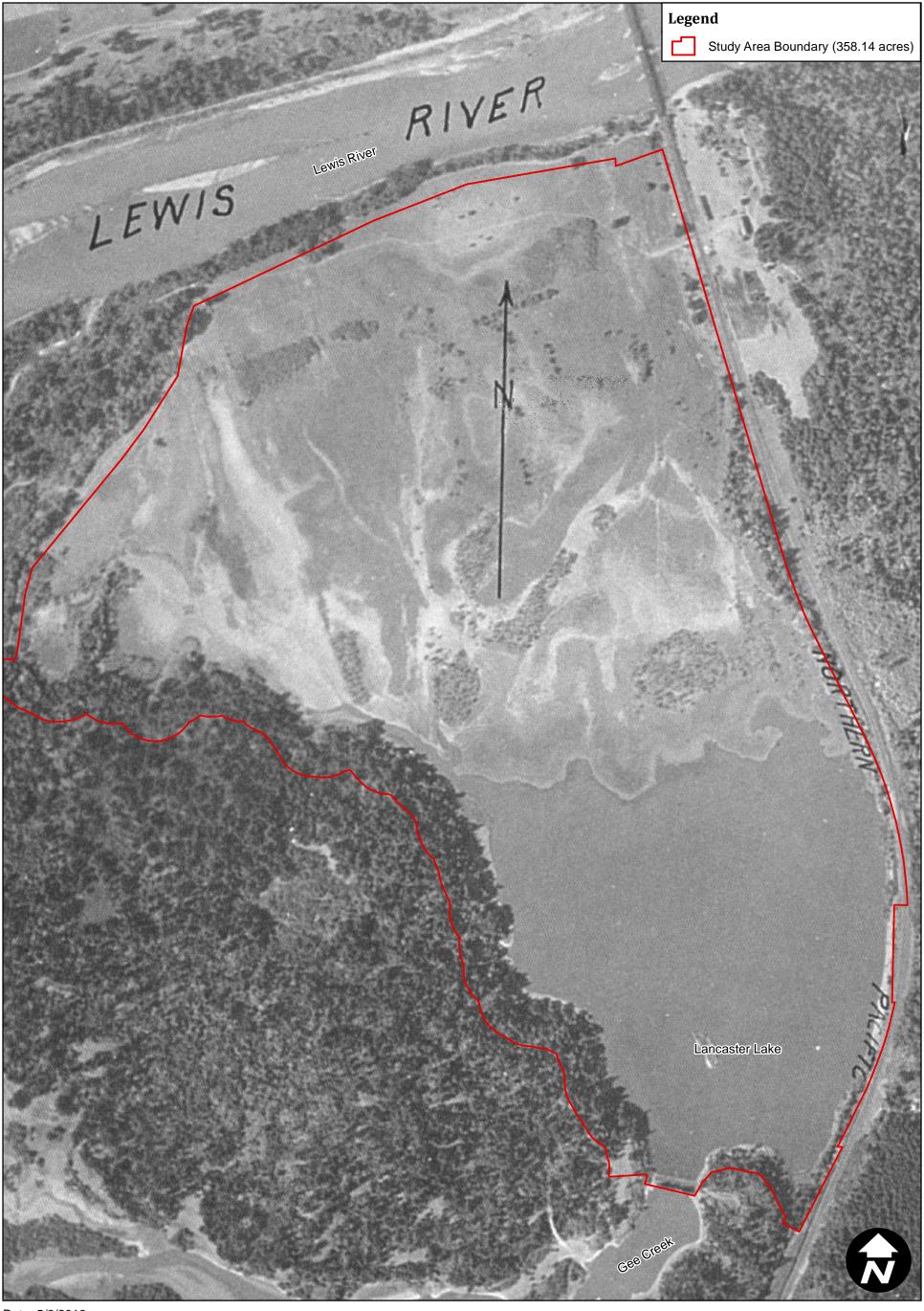




Date: 5/6/2016 Scale: 1 inch = 500 feet Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1996: Lewis River and Gee Creek Study Area



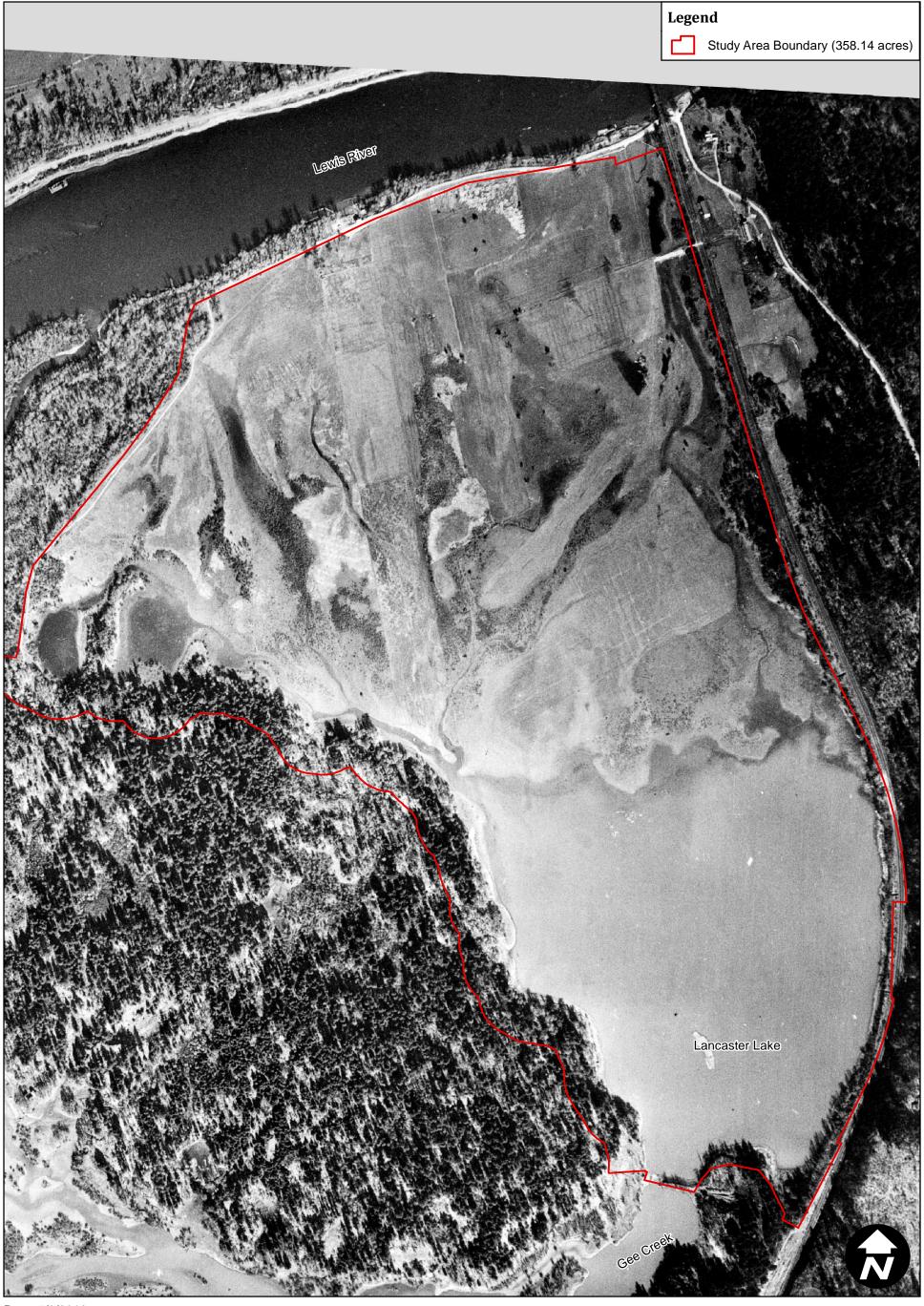


Date: 5/6/2016 Scale: 1 inch = 500 feet Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1929: Farm Fields and Lancaster Lake Study Area

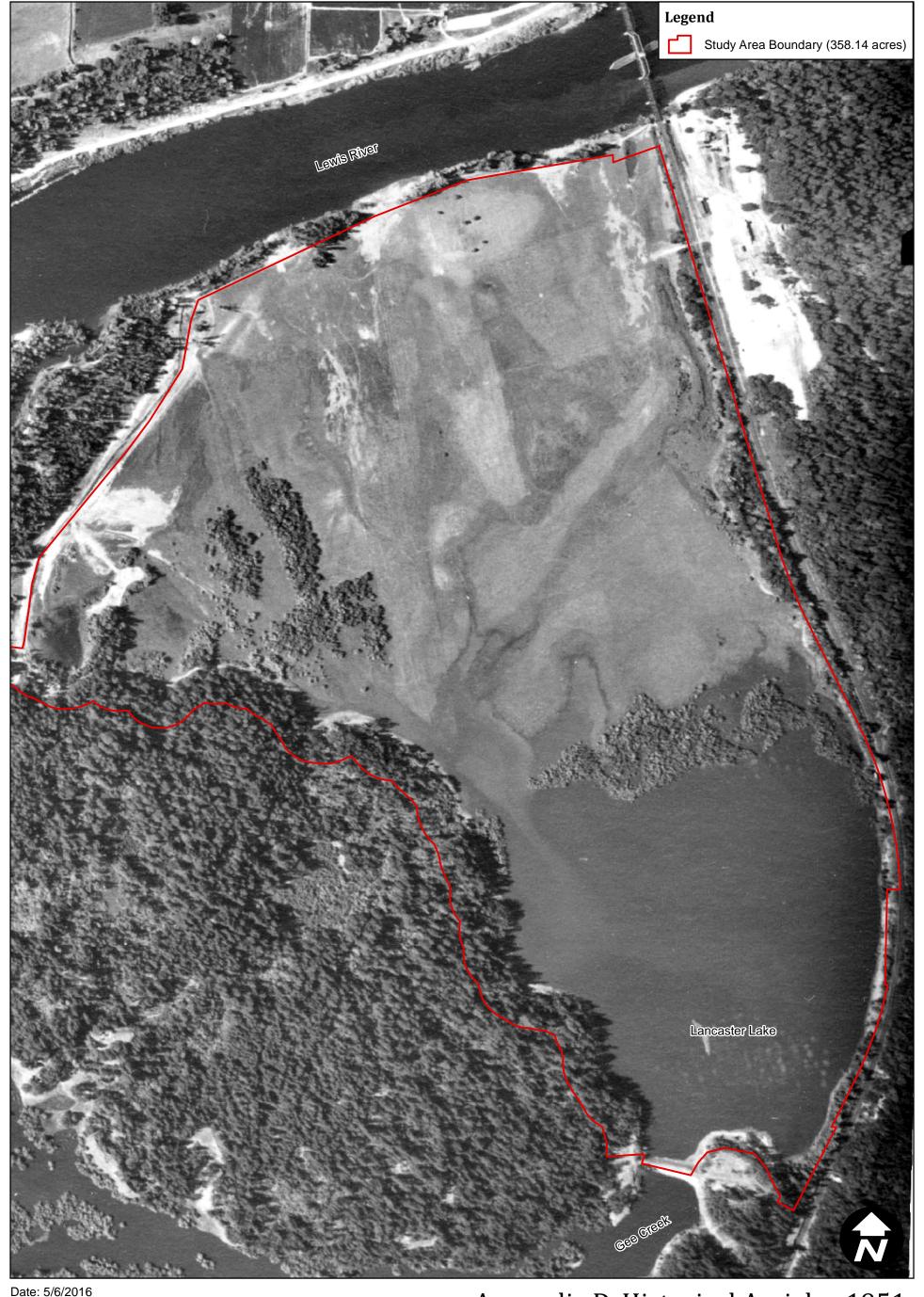


Plas Newydd Farm Wetland Delineation Report



Appendix D. Historical Aerials - 1936: Farm Fields and Lancaster Lake Study Area





Scale: 1 inch = 500 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1951: Farm Fields and Lancaster Lake Study Area





Appendix D. Historical Aerials - 1969: Farm Fields and Lancaster Lake Study Area





Appendix D. Historical Aerials - 1977: Farm Fields and Lancaster Lake Study Area





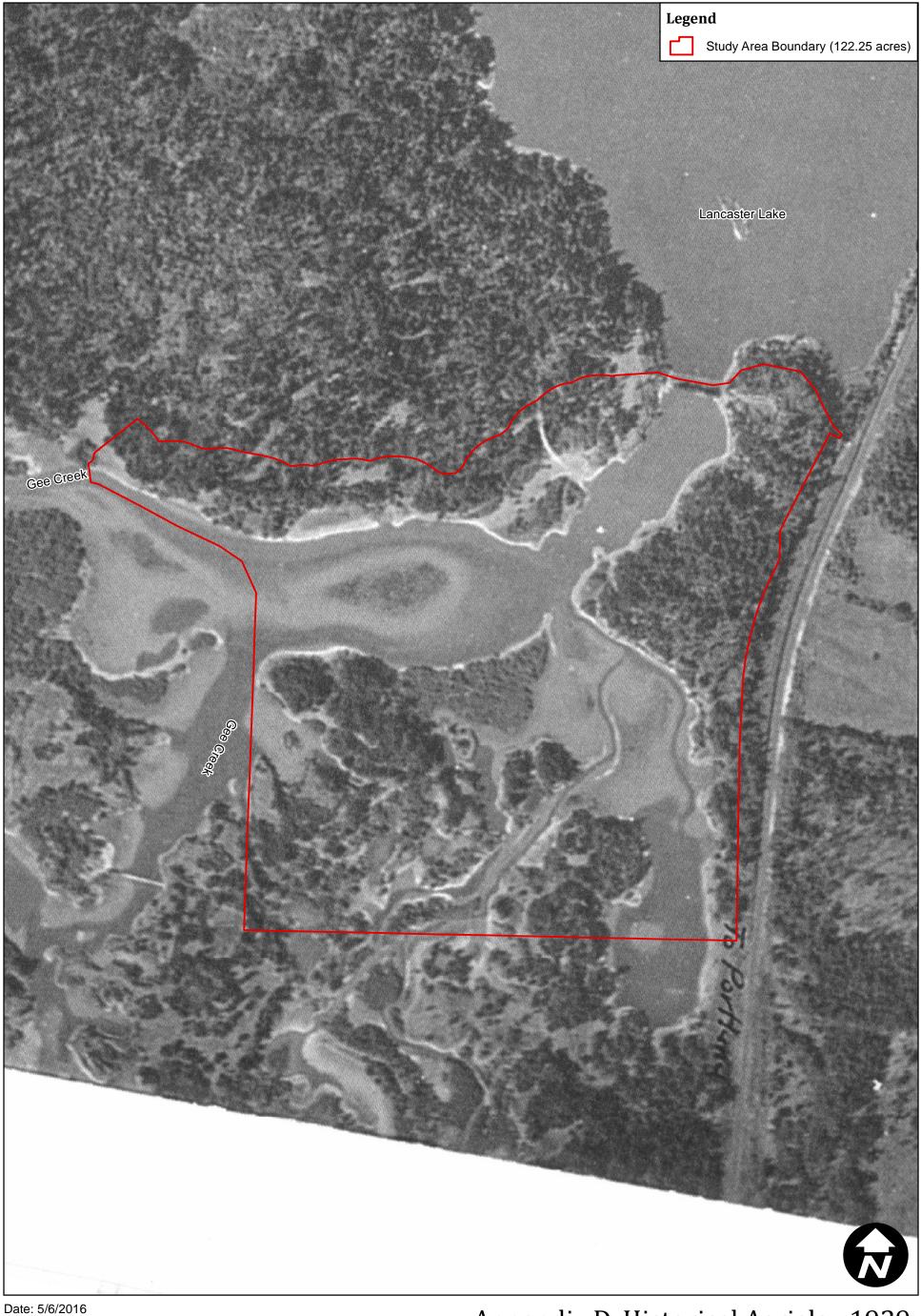
Appendix D. Historical Aerials - 1986: Farm Fields and Lancaster Lake Study Area





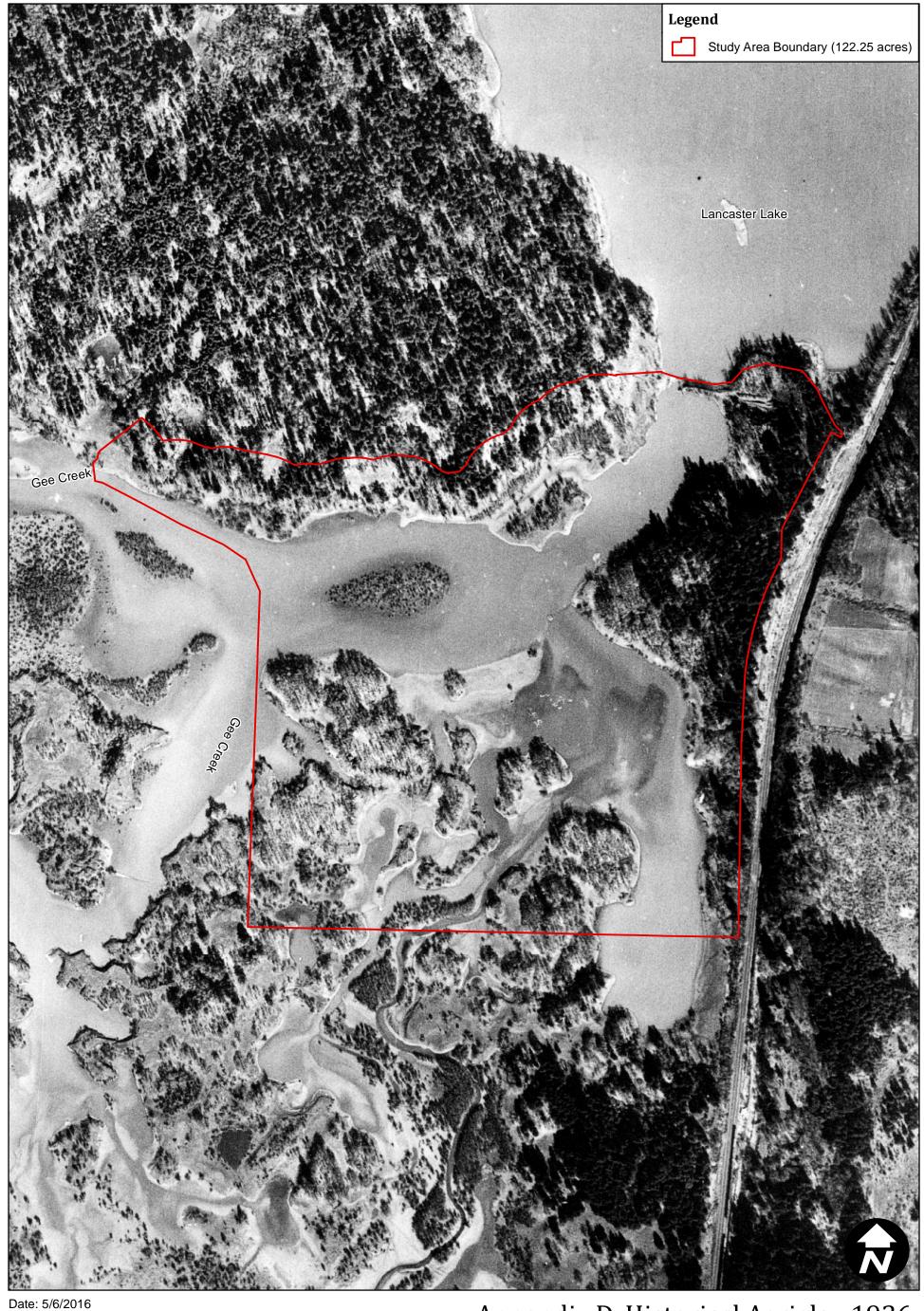
Appendix D. Historical Aerials - 1996: Farm Fields and Lancaster Lake Study Area





Appendix D. Historical Aerials - 1929: Gee Creek - South Backwater Study Area



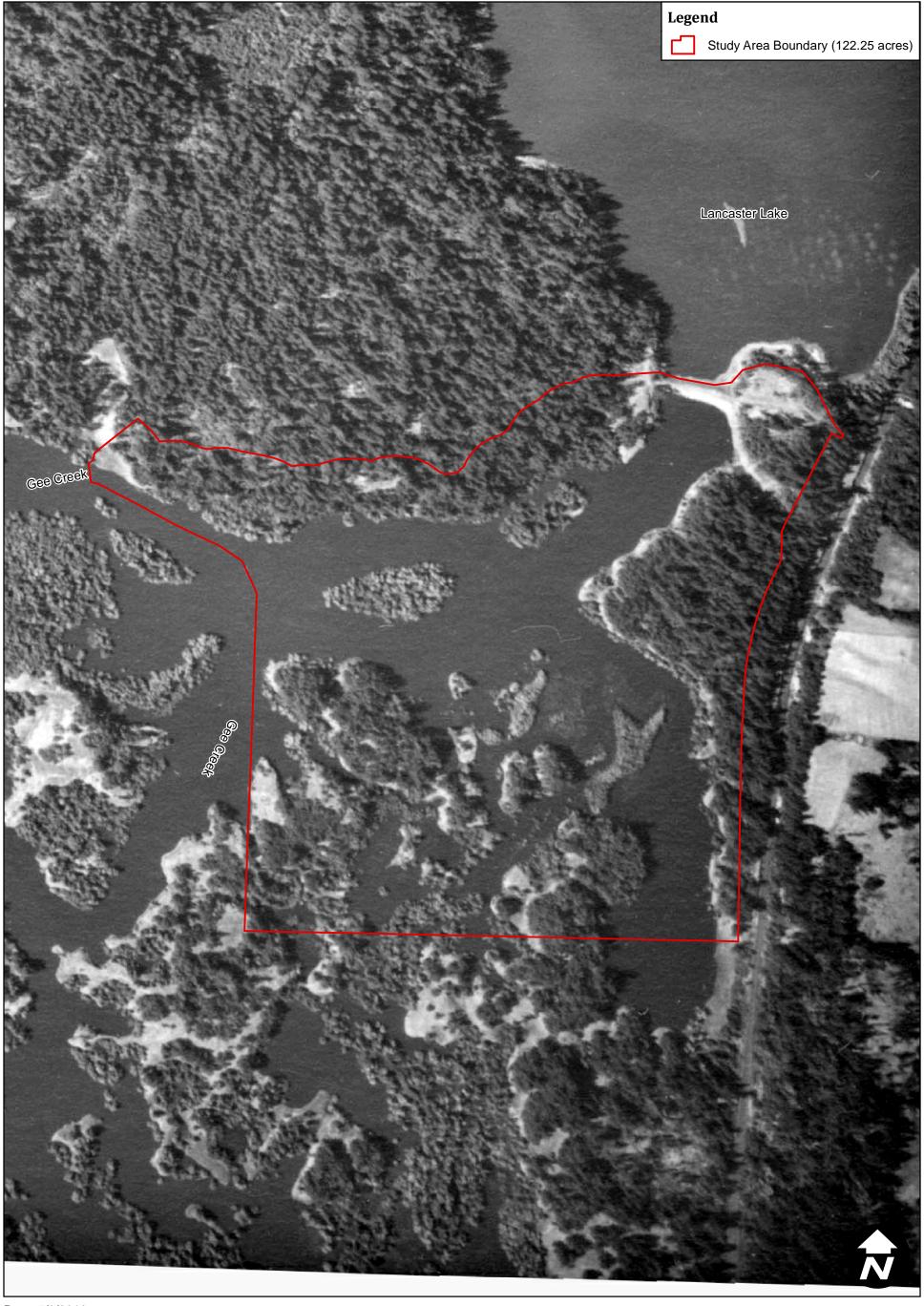


Scale: 1 inch = 400 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1936: Gee Creek - South Backwater Study Area





Appendix D. Historical Aerials - 1951: Gee Creek - South Backwater Study Area





Appendix D. Historical Aerials - 1969: Gee Creek - South Backwater Study Area



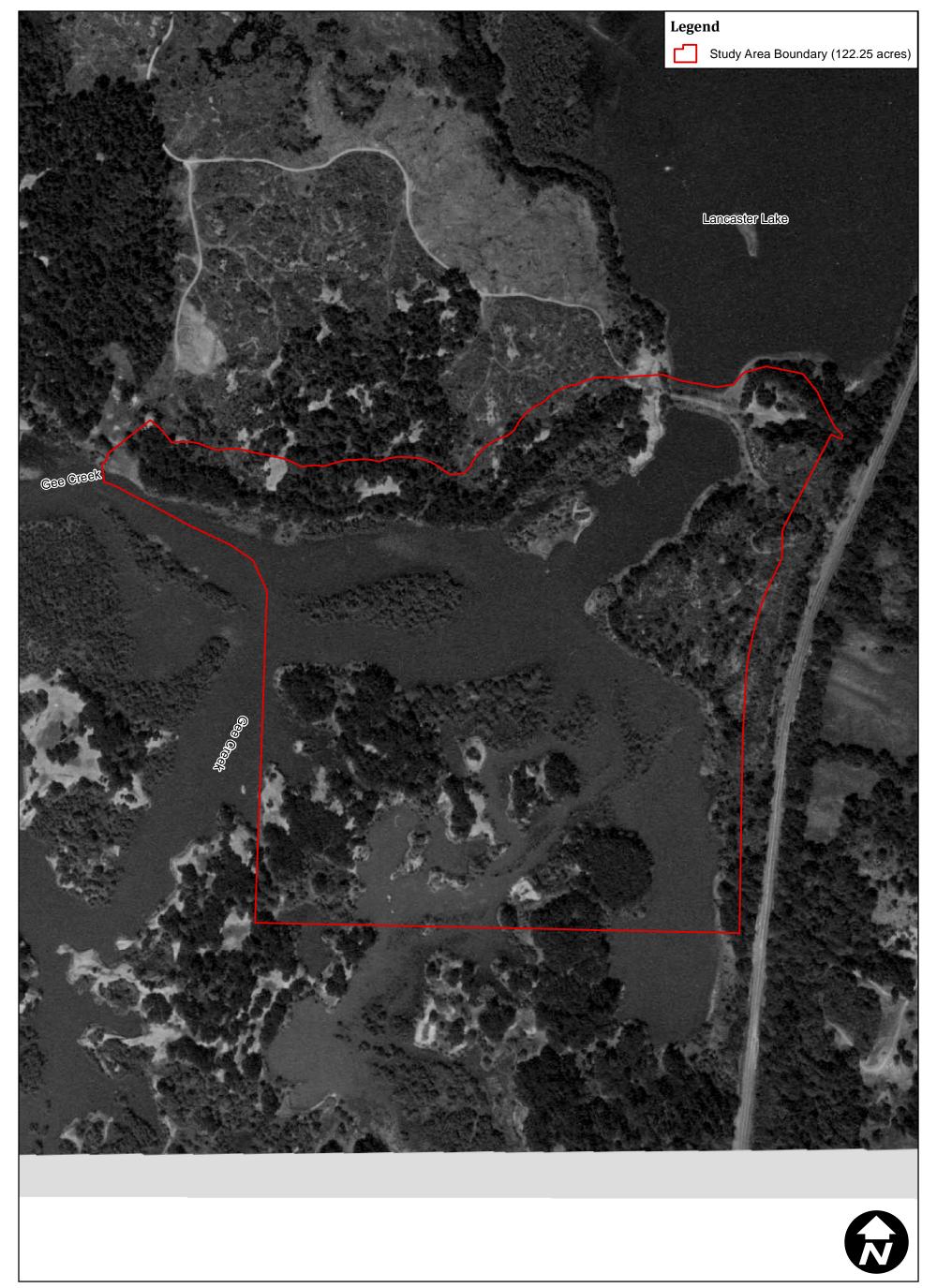


Scale: 1 inch = 400 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1977: Gee Creek - South Backwater Study Area





Date: 5/6/2016 Scale: 1 inch = 400 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1986: Gee Creek - South Backwater Study Area





Date: 5/6/2016 Scale: 1 inch = 400 feet

Data Source: Plas Newydd Farm, LLC

Appendix D. Historical Aerials - 1996: Gee Creek - South Backwater Study Area

