# Wetland Delineation for the LSI Property in Gresham, Oregon

(T1N, R3E, Sec 34C, Tax Lots 400, 500) (T1N, R3E, Sec 34CD, Tax Lots 100, 200, 300, and 400) (T1N, R3E, Sec 34D, Tax Lots 200, 300, 400, and 500) (T1N, R3E, Sec 34AC, Tax Lots 1500 and 1600) (T1N, R3E, Sec 34DC, Tax Lot 1300)

# Prepared for

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#### I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation for a group of properties located at Twelvemile Corner in Gresham, Oregon, comprised of the following tax lots: T1N, R3E, Sec. 34C, Tax Lots 400, 500; T1N, R3E, Sec. 34CD, Tax Lots 100, 200, 300, and 400; T1N, R3E, Sec. 34D, Tax Lots 200, 300, 400, and 500; T1N, R3E, Sec. 34AC, Tax Lots 1500 and 1600; and T1N, R3E, Sec. 34DC, Tax Lot 1300.

This report summarizes the findings from PHS' delineation of wetlands and other water features within the study area. Figures, including a map locating wetlands within the study area, are located in Appendix A. Data sheets documenting on-site conditions are provided in Appendix B. Ground level photos of the site are located in Appendix C, and Appendix D includes historical aerial photos. Wetland delineation methods are described in Appendix E for the client.

#### II. RESULTS AND DISCUSSION

# A. Landscape Setting and Land Use

The subject parcels cover approximately 221 acres within an area roughly bounded by NE 223<sup>rd</sup> Street and NE 242<sup>nd</sup> Drive (west and east, respectively) and by NE Glisan and NE Stark Streets (north and south, respectively) in Gresham, Oregon. The parcels are in west and east sections due to intervening tax lots that are either already developed for manufacturing uses (i.e. the ON Semiconductor chip manufacturing facility) or are simply unavailable for consideration.

Site topography varies from nearly flat to gently rolling over much of the southwestern and eastern portions of the site, since the site is located on an ancestral floodplain terrace of the Columbia River. However, the northwest portion of the site drops gradually, then relatively steeply off the edge of the terrace toward the northwest; slopes are especially steep within the forested area.

Current land use is primarily agricultural production, with nursery stock being the dominant product. The northwest portion of the site is partly forested, with a small network of incised stream channels draining this area. A large constructed pond is located west of the forested area. The pond appears to hold irrigation runoff and may also capture seasonal groundwater seepage; the LWI labels the pond as a stormwater detention facility. A regularly mowed fallow field is located west of the pond. Areas not used for nursery stock are typically maintained by mowing as well. A large building and several small barns are located south of the pond, and are only sporadically utilized at this time. A variety of businesses, a church, and residential housing surround the site.

#### B. Site Alterations

A review of historic aerial photographs from 1935 through the present show significant changes in agricultural and other land use practices over time. Aerials from 1955 and 1972 indicate agricultural activity only throughout the study area, with the large pond evident by 1972 and prior to construction of any large buildings. The pond was constructed for irrigation purposes, with a

pump located at its eastern end. The large building and associated outbuildings in the northwest part of the site was evident by 1989; most of the site was still in crop production. A 2001 aerial shows the site utilized primarily for nursery stock, which is still the dominant use.

Agricultural drainage ditches have been constructed and maintained over time on the upland terraces in order to convey seasonal stormwater accumulations as well as summer irrigation runoff across and ultimately off site. Some of the surface runoff from the southwestern portion of the site finds its way westward towards NE 223<sup>rd</sup> Street, which has been widened within the last 10 years. Several stormwater detention ponds have been constructed within the property near NE 223<sup>rd</sup> Street, with overflows conveyed to a roadside ditch and into the municipal stormwater system. These flows may ultimately join Fairview Creek to the north of NE Glisan Street.

PHS did not observe recent fill or removal activities, other than those associated with ongoing agricultural practices prevailing across the site.

# C. Precipitation Data and Analysis

PHS initially conducted the wetland delineation and collected data in June, July, and September 2008, and again in January 2009. No precipitation fell on June 18, 2008, and rainfall in the two weeks prior totaled 0.23 inch. Precipitation for the month of June 2008, totaled 1.01 inches, which was 64% of normal. No precipitation fell on July 15, 2008, and just 0.28 inch fell in the previous two weeks. Precipitation in July 2008, totaled 0.29 inch, which was 40% of normal. No precipitation fell on September 9, 2008, or in the two weeks prior. Precipitation for the month of September totaled 0.48 inch, which was 29% of normal. Total rainfall for the 2007-2008 water year to date was 32.83 inches, which was 89% of normal (Oregon Weather Summary, June through September, 2008).

No precipitation fell on January 29, 2009, and just 0.14 inches fell in the two weeks prior. Precipitation for the month of January (through January 29) was 4.49 inches. Total rainfall for the 2008-2009 water year to date was 13.11 inches (National Weather Service, 2009).

The LSI site was revisited twice in April 2011 to assess whether any significant changes had occurred during the intervening years. No precipitation fell on April 13; however, 1.54 inches had fallen since April 1. The second visit on April 22 received 0.10 inch, with an additional 1.99 inches having fallen since the April 13 visit. Precipitation in April 2011 totaled 5.04 inches, which was 191% of normal. Total rainfall for the 2010-2011 water year to date is 39.33 inches, which was 132% of normal (National Weather Service, 2011).

Table 1 shows the average monthly rainfall in Portland for each month, as well as the range of values considered normal for this area (i.e. 70% chance that monthly total will fall within the 'normal' range of values) (NRCS WETS table for Portland WSFO, 2002).

Table 1. Average Monthly Rainfall (NRCS WETS Table)

Month	Average*	30% chance will have		Recorded rainfall (2008-9)**	Recorded rainfall (2010-11)***
		Less than	More than		
January	5.07	2.98	6.16	4.49 ('09)	4.73 ('11)
February	4.18	2.84	4.98		4.28 ('11)
March	3.71	2.85	4.31		6.43 ('11)
April	2.64	1.93	3.10	2.09 ('08)	5.04 ('11)
May	2.38	1.44	2.88	2.03 ('08)	
June	1.59	0.94	1.93	1.01 ('08)	
July	0.72	0.31	0.89	0.29 ('08)	
August	0.93	0.33	1.13	1.24 ('08)	
September	1.65	0.65	2.06	0.48 ('08)	
October	2.88	1.57	3.52	1.77 ('08)	3.87 ('10)
November	5.61	3.72	6.73	4.15 ('08)	6.63 ('10)
December	5.71	3.89	6.82	2.70 ('08)	8.35 ('10)

<sup>\*</sup>Average Monthly Rainfall (NRCS WETS Table) for Portland WSFO

Recorded precipitation for April, May, and June 2008 was below average, but considered to be within normal ranges for the area. Recorded precipitation for July was below average, and also considered to be below the normal range. Recorded precipitation for August was above average, and considered to be above the normal range. Recorded precipitation for September was below average, as well as outside the normal range. Recorded precipitation for January 2009 was below average, but considered to be within the normal range.

Recorded precipitation totals for March and April 2011 were well above average, and also well above the normal range, as earlier noted. Rainfall for January and February were within the normal range, while earlier in the water year values were within normal ranges for October and November 2010, but well above normal range in December 2010.

Rainfall fluctuations in the months preceding both the original delineation and the spring 2011 revisit are not expected to have significantly affected the wetland boundaries, as the required delineation methods aim to minimize disrepancies based on short term weather variations. These methods are described further in the following section.

#### D. Methods

PHS delineated the wetlands on the site based on indicators of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination methodologies described in the Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1 ("The 1987 Manual"). The interim and final (Version 2.0) editions of the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region have also been utilized in determining wetland indicators during both initial and recent site investigations.

<sup>\*\*</sup>Recorded monthly rainfall (Oregon Weather Summary) for Portland (2008-early '09)

<sup>\*\*</sup>Recorded monthly rainfall (Oregon Weather Summary) for Portland (2010-2011 water year to date)

The wetlands were typically either shallowly inundated or saturated within the upper 12 inches of the soil profile at the time of PHS's wetland delineation field work. However, in areas where primary indicators of hydrology were not present, secondary indicators of hydrology, including drainage patterns, were used in combination with hydrophytic vegetation and hydric soils, to determine the wetland/upland boundary.

Most of this site is currently used for growing nursery stock. Prior land uses include other forms of agriculture and much of the site has compacted soils from these activities. PHS was unable to dig some of the soil data pits to the required depth of 20 inches in several areas due to high rock content and compaction. These areas were determined to be upland or wetland based on plant cover, presence or absence of water, and topography.

The standard methodologies and field indicators used for determining the ordinary high water line (OHWL), such as vegetation changes, scour lines, debris lines, and water marks, were used to determine the jurisdictional limits of the streams and ditches within the site.

# E. Description of all Wetlands and Other Non-Wetland Waters

Within the site boundaries, PHS identified eight wetlands, a forested stream/seep complex, and four ditches. Several stormwater detention areas and an irrigation pond were also identified in this study.

#### WETLANDS

#### Wetlands A to D

Wetlands A through D are all located within a narrow strip of land south of the ON semiconductor site. This area is roughly bounded by a gravel road along its north, west, and east sides, and by a compacted, leveled, and graveled surface used for the growth and storage of potted nursery plants along its south side. The narrow strip itself appears to have been subject to previous ground disturbance or fill activity, since the predominant substrate across this area is a silt/gravel mix that includes larger cobbles up to 6 inches or more in diameter. Vegetation is best developed in those areas where the fill is relatively rich in fines, and has been undisturbed for the longest period of time. Since each of these wetland units are subject to the same hydrologic inputs and share a similar substrate, they are treated collectively here.

Hydrology within Wetlands A to D appears to be driven by seasonal overland and groundwater flows augmented by the irrigation of nursery stock. The area to the south, and upslope, of the wetlands is utilized for rotating nursery stock in plastic pots, being readied for loading onto delivery trucks. Because the plants are in containers, they are irrigated during dry periods to maintain healthy plant stock. Excess irrigation runoff flows north, over and through the graveled storage area, and into the patch of periodically mowed vegetation where Wetlands A to D are located. Due to the geomorphic position of this area, water ponds in places for extended periods even in summer.

The 2008 fieldwork determined the presence of two smaller wetlands in this area; the western end at that time was subject to active agricultural disturbance and was to be revisited at a later time. On revisiting this area in April 2011, however, it was apparent that the site had been further modified, with fill shaped into a low berm in the northwest corner of the narrow strip of land. Vehicle movements in conjunction with recent mowing activities had also modified this undeveloped strip by creating fresh, relatively deep tire ruts in places. Much of this area was shallowly ponded, if not saturated to the surface, at least partly due to the recent heavy rains.

Wetland A is approximately 8,242 square feet (0.19 acre) in size and is the westernmost wetland unit within the narrow strip. Wetland B is approximately 9,063 square feet (0.21 acre) in size and is located immediately west of the small access road that connects the larger gravel road with the nursery storage area. Wetland C is approximately 34,574 square feet (0.80 acre) in size and is located immediately east of the small access road; it includes two upland islands. Wetland D is approximately 5,578 square feet (0.13 acre) in size and is the easternmost unit within the narrow strip of land, and the most elevated. The Cowardin classification for all four wetlands is palustrine, emergent, seasonally flooded (PEMC), and their HGM class is Slope.

Despite the high gravel and cobble content of the old fill materials in this area, soils within Wetlands A to D generally met the hydric soils definition with redox dark surface (F6) indicators in evidence. Unfortunately, PHS was generally unable to dig a soil pit in this area to the required 20-inch depth. Along with active indicators of hydrology (saturated soils and shallow inundation), algal mats and shallow drainage patterns were observed within these wetlands.

Since Wetlands A to D occupy the same landform and are subject to similar disturbance regimes and growing conditions, their vegetation cover is similar as well. The most depressional areas subject to shallow ponding support such hydrophytes as softstem bulrush (*Scirpus tabernaemontanii*, OBL) and cattail (*Typha latifolia*, OBL), while slightly more elevated areas are dominated by creeping bentgrass (*Agrostis stolonifera*, FAC) and by both tall and red fescues (*Festuca arundinacea*, *F. rubra*, both FAC). The adjacent uplands may still be mostly dominated by facultative species, but also include more upland species such as Queen Anne's lace (*Daucus carota*, UPL), spotted cat's ear (*Hypochaeris radicata*, FACU), sweet vernal grass (*Anthoxanthum odoratum*, FACU), North Africa grass (*Ventenata dubia*, UPL), and white and red clovers (*Trifolium repens*, *T. pratense*, FAC and FACU).

#### Wetland E

Wetland E is approximately 7,544 square feet (0.17 acre) and is located in the northwestern portion of the site. The Cowardin classification is palustrine, scrub-shrub to emergent, seasonally flooded (PSSC) and the HGM class is Slope. Vegetation within Wetland E consists of black cottonwood (*Populus trichocarpa*, FAC), red alder (*Alnus rubra*, FAC), Himalayan blackberry (*Rubus discolor*, FACU), creeping bentgrass, velvet grass (*Holcus lanatus*, FAC), and soft rush (*Juncus effusus*, FACW). The adjacent upland consists of black cottonwood, black locust (*Robinia pseudoacacia*, FACU), maple (*Acer* sp.), Himalayan blackberry, perennial ryegrass (*Lolium perenne*, FACU), bentgrass (*Agrostis* sp.), and rough bluegrass (*Poa trivialis*, FACW). The grassy portions of Wetland E are regularly mowed. Much of the woody cover upslope of the wetland appears to be comprised of trees planted in rows, possibly as part of an old nursery planting.

Hydrology within Wetland E is driven by upslope groundwater seepage and stormwater sheetflow during the wet season. Surface soil cracks and drainage patterns were observed during the initial field visits; a revisit in April 2011 confirmed the area with minor modifications, as vegetation was more readily assessed prior to mowing, and direct indicators of hydrology were evident. Soils within Wetland E met the hydric soils definition with redox dark surface (F6) indicators.

Wetland E narrows downslope into a swale that flows westward toward NE 223<sup>rd</sup> before effectively widening and disappearing near the edge of the fill mound to the north, and prior to reaching the west fenceline. Hydric soils were not in evidence at the west end of this swale.

#### Wetland F

Wetland F is approximately 3,836 square feet (0.09 acre), and is located in the northwestern portion of the site. The Cowardin classification is PEMC and the HGM class is Slope. Vegetation within Wetland F consists of velvetgrass, bird's foot trefoil (*Lotus corniculatus*, FAC), and meadow foxtail (*Alopecurus pratensis*, FACW); the latter species was evident in the 2011 revisit, but may not have been identifiable during the 2008 visits due to mowing. The adjacent upland area consists predominantly of perennial ryegrass.

Hydrology within Wetland F appears to be from groundwater seeps located in the upper (southern) portions of the wetland. Drainage patterns were evident, and surface saturation within the wetland was observed during the June 2008 site visit, as well as during the April 2011 revisit to the site. Surface overflows from this wetland continue downslope into the large manmade pond (Wetland G). Soils within Wetland F met the hydric soils definition with redox dark surface (F6) indicators.

During the April 2011 visit, a small excavated depression was located upslope of Wetland F within a stand of European white birch (<u>Betula nigra</u>) and Himalayan blackberry. The depression measured less than 10 feet wide across its bottom, which was ponding water up to 20 inches deep and supported a dense growth of water starwort (*Callitriche* sp.). Groundwater was seeping into the pit from upslope at a steady flow rate; this seepage appeared to be re-emerging further downslope within Wetland F, indicating that there may be a restrictive soil layer influencing the downslope groundwater movement in this area. The original purpose for excavating this depression is unknown at this time.

#### Wetland G/ Pond

This large manmade pond includes a vegetated wetland fringe; this feature is described further under Other Waters, since it is primarily unvegetated, yet is mostly less than 6.6 feet in depth.

#### Wetland H

Wetland H is approximately 17,309 square feet (0.40 acre), and is located in the northwestern portion of the site. The Cowardin classification is PEMC and the HGM class is Slope. Vegetation within the wetland consists of velvetgrass and other mowed turf grasses that PHS was unable to identify during the original site visits. A revisit in April 2011 confirmed that much of this area is

also dominated by meadow foxtail (*Alopecuris pratensis*, FACW). The adjacent upland area consisted primarily of bentgrass. Although the dominant vegetation within both the wetland and the upland is FAC, subdominant vegetation within the wetland is also FAC, while subdominant vegetation within the adjacent upland is FACU.

Hydrology within Wetland H appears to be driven by seasonal storm-and groundwater inputs that may shallowly inundate much of the site during prolonged rainy periods. Upslope groundwater seepage from the large pond to the south may also contribute to prolonged soil saturation, as the site extends north from near the base of the impoundment. Drainage patterns were observed within the wetland. Soils within Wetland H met the hydric soils definition with redox dark surface (F6) indicators. Wetland H does not extend offsite.

#### OTHER WATERS

#### Wetland G/ Pond

A large manmade pond approximately 64,293 square feet (1.48 acres) is located in the northwestern portion of the site. The Cowardin classification is palustrine, unconsolidated bottom, permanently flooded, excavated (PUBHx), and the HGM class is Depressional. The pond was excavated sometime between 1955 and 1972. Vegetation in the wetland fringe adjacent to the pond consists primarily of reed canarygrass (*Phalaris arundinacea*, FACW).

The pond appears to be fed by both groundwater seepage and surface water inputs. A pump located at the eastern end of the pond may be utilized as necessary to pump water for irrigation of nursery stock within the site. Soils along the edge of the pond met the hydric soils definition with redox dark surface (F6) indicators in evidence.

#### **Stream Complex**

A system of mostly perennial natural streams is located east of the pond within a closed canopy forest. The total area of this complex is 10,189 square feet (0.23 acre). The Cowardin classification is riverine, upper perennial, streambed, cobble/gravel (R3SB3) and the HGM class is Riverine. Vegetation within the stream complex and below the OHWL consists of red alder, Oregon ash (*Fraxinus latifolia*, FACW), Himalayan blackberry, trailing blackberry (*Rubus ursinus*, FACU), and common horsetail (*Equisetum arvense*, FAC).

The adjacent riparian area includes big leaf maple (Acer macrophyllum, FACU), cherry (Prunus sp.), Himalayan blackberry, trailing blackberry, and fringecup (Tellima grandiflora, UPL).

The streams were generally flowing during PHS' site visits, although during the September 9, 2008, site visit the easternmost stream was not flowing. Water within the stream appears to come from several hillside seeps or springs. The headwaters of the streams that flow north begin where vegetation changes from upland to hydrophytic species, and a bed and bank becomes apparent.

The streams range from 5 to 15 feet wide, and are not incised. The substrate is predominantly composed of gravel and cobble, with some fines present as well. The easternmost stream flows north off site, as do the two streams that flow west. The most westerly stream flows north, and likely enters a culvert and continues north under NE Glisan street; however, PHS was unable to locate the culvert.

An excavated diversion channel is present at the southwest end of the complex. Diverted water enters a culvert, and appears to discharge to the pond. PHS was able to hear the irrigation pump located in the pond echoing through the culvert.

#### Ditch 1

Ditch 1 is located in the east-central portion of the site, and when included with the excavated depression it feeds into, is approximately 26,290 square feet (0.60 acre) in size. Ditch 1 has been excavated from upland to convey irrigation and stormwater runoff to the depressional area located at the north end of the ditch (data point 1). The Cowardin classification for the ditch and depression is PEMC, but an HGM class was not assigned to these manmade features. Vegetation within the ditch is absent; however, vegetation within the depressional area at the north end of the ditch consisted of common yarrow, white clover, wild carrot, spotted cat's ear, and unidentifiable mowed grasses.

No hydrologic indicators were observed in either the ditch or the depression at the time of survey. Soils, to a depth of 16 inches, did not meet hydric soil criteria. Ditch 1 continues offsite via a grated culvert located at its north end. The culvert extends to the north beneath NE Glisan Street.

Ditch 1 was excavated in upland, is less than 10 feet wide, and does not contain food or game fish. Wetland vegetation and hydric soils are also absent. As such, Ditch 1 does not meet wetland or other waters criteria.

#### Ditch 2

Ditch 2 is approximately 4,545 square feet (0.10 acre) and is located in the southwestern portion of the site, west of Wetland A. The Cowardin class is PEMC; an HGM class was not assigned since the ditch is manmade. Ditch 2 has been excavated from upland to convey irrigation and stormwater runoff to another ditch that feeds to a stormwater detention area, located in the western portion of the site. A data point was not taken within the ditch because the ditch had clearly defined bed and banks.

Vegetation within Ditch 2 consists of cattail and soft stem bulrush. Surface saturation was observed on the June 25, 2008, site visit. The ditch boundary was determined by the presence of soil saturation, observation of drainage patterns, and the transition from obligate wetland species to facultative and drier grasses.

A culvert beneath a dirt access road is located at the north end of the ditch. The culvert feeds to Ditch 3 (described below).

Ditch 2 was excavated from upland soil, is less than 10 feet wide, and does not contain food or game fish. Therefore the ditch does not meet other waters criteria. However, wetland vegetation and hydric soils are present. The ditch appears to have been excavated to direct stormwater and irrigation runoff west, to the stormwater detention facilities.

#### Ditch 3

Ditch 3 is approximately 9,387 square feet (0.22 acre) in area, and is also located in the southwestern portion of the site. The Cowardin class is PEMC; an HGM class was not assigned since the ditch is manmade. Ditch 3 has been excavated from upland to convey irrigation and stormwater runoff to a stormwater detention area, located in the western portion of the site. Vegetation within Ditch 3 consists of creeping bentgrass and soft stem bulrush. No adjacent upland data point was documented because the ditch is well defined and the adjacent ground is highly disturbed and compacted by ongoing agricultural activities.

Soils within the upper six inches of the soil profile did not meet hydric soil criteria; however, four inches of inundation was observed. A culvert conveying water from Ditch 2 is located at the eastern end of this ditch, which conveys flows westward into a stormwater detention area.

Ditch 3 was excavated from upland soils, is less than 10 feet wide, and does not contain food or game fish. Therefore the ditch does not meet other waters criteria. Wetland vegetation and hydrology are present, although hydric soils are absent within the upper 6 inches of the soil profile. The ditch has been excavated to direct surface runoff westward to the stormwater detention facilities.

#### Ditch 4

Ditch 4 is approximately 1,609 square feet (0.04 acre) in area, and is located along the western property boundary adjacent to NE 223<sup>rd</sup> Street. The Cowardin class is PEMC; an HGM class was not assigned since the ditch is manmade. Vegetation within the ditch consists of mowed grasses that were unidentifiable at the time of fieldwork. Ditch 4 appears to have been excavated from upland to convey stormwater and irrigation runoff into a catch basin located at the southern end of the ditch, which presumably connects to the City of Gresham's stormwater system associated with NE 223<sup>rd</sup> improvements. These flows may be routed westward beneath NE 223<sup>rd</sup> into a tributary of Fairview Creek. Ditch 4 does not connect to any of the stormwater detention areas.

Ditch 4 was excavated from upland soil, is less than 10 feet wide, and does not contain food or game fish. Therefore the ditch does not meet other waters criteria. Vegetation consisted of mowed, unidentifiable grasses that are likely facultative or drier; the soils within the ditch were not examined. Ditch 4 appears to have been excavated from upland to convey stormwater and irrigation runoff into a catch basin, which is presumed to connect to the city's stormwater treatment system.

#### Stormwater detention areas

Four stormwater detention areas are located in the southwestern portion of the site, just east of 223<sup>rd</sup> Street. These areas were excavated from upland soils to hold stormwater and irrigation runoff. PHS did not observe water within the detention areas during any of the 2008 site visits. The detention areas are lined with rip rap, therefore PHS was unable to dig soil pits to determine if hydric soils are present. Vegetation within the detention areas consists primarily of weedy, mostly upland species, including orchard grass (*Dactylis glomerata*, FACU), sweet vernal grass, spotted cat's ear, creeping bentgrass, and bluegrass (*Poa* sp.).

No inlets or outfalls were observed within the detention areas. Ditch 3 conveys runoff into the easternmost detention pond. Water then appears to percolate into the ground. PHS did not observe drainage patterns or any other indications that water overflows from the detention areas.

#### **Irrigation pond**

A smaller irrigation pond (of approximately 5,313 square feet, or 0.12 acre in size) is located in the south-central portion of the site near the main entry road. The Cowardin class is palustrine, open water, permanently flooded, excavated (POWHx). As the pond was artificially created, an HGM class has not been assigned.

Vegetation is not present in the pond; soils were not examined due to the depth of water (depth unknown). The pond had water during all of PHS' site visits. The pond appears to be used to store water for irrigation of the adjacent nursery stock. The pond does not continue off site.

#### F. Deviation from LWI or NWI

The Local Wetland Inventory (LWI) for the City of Gresham shows a stormwater detention facility in the northwestern portion of the site; this is consistent with PHS' findings. The LWI also maps a stream, using data from Metro, in the southwestern portion of the site. PHS did not observe a stream in this area. PHS documented 8 wetlands, 4 ditches, a stream complex, and several stormwater detention areas. LWI maps are generated through aerial photo interpretation and visual confirmation during site assessments. A lack of landowner permission to assess the site during the LWI, may be the reason for the discrepancy between the LWI and PHS' findings.

The US Fish and Wildlife Service's National Wetlands Inventory (NWI) maps a palustrine, unconsolidated bottom, permanently flooded, excavated wetland in the northwestern portion of the site. This is consistent with PHS's delineation of the pond. NWI maps are generated primarily through the interpretation of color infrared aerial photographs (scale of 1:58,000), with limited "ground truthing" to confirm the interpretations. The small size of the on-site wetland and ditches, and the scale of the aerial photographs used to prepare the NWI is the likely reason for the discrepancy between the wetlands mapping and the existing on-site conditions.

# G. Mapping Method

PHS originally flagged the limits of the wetlands and ditches within the site in 2008. Compass Engineering performed a professional land survey of the delineated boundaries. The accuracy of the original survey was sub-centimeter, while the data points were added to the wetland delineation figure based on field notes, with an estimated accuracy of +/- 3 feet.

Subsequently, the site was revisited in April 2011 to determine whether significant changes had occurred to wetland boundaries. PHS noted that changes had occurred in the vicinity of original wetlands A and B. This area was redelineated into four separate wetland units (Wetlands A to D) and the revised boundaries were surveyed using a resource-grade GPS. Post-processing of the shapefile provided sub-meter accuracy for both the flagged line and data points. Minor revisions were also made to wetlands E and F, with similar accuracy standards.

#### H. Additional Information

#### **POTENTIAL JURISDICTION**

#### Ditch 1

Ditch 1 appears to be used to convey irrigation runoff from the nursery stock to a depressional area at the ditch's north end. No hydrologic indicators were observed within the ditch or within the depressional area at the ditch's north end. Soils, to a depth of 16 inches, did not meet hydric soil criteria. Ditch 1 appears to have been excavated wholly from upland soils, and does not meet wetland criteria; therefore, Ditch 1 should not be considered jurisdictional.

#### Ditches 2 and 3

Ditches 2 and 3 appear to be used to convey irrigation runoff from the nursery stock to the stormwater detention area located at the western end of the site. Although the ditches meet wetland criteria, they appear to have been excavated wholly from upland soils; Ditches 2 and 3 should not be considered jurisdictional.

#### Ditch 4

Ditch 4 appears to have been excavated from upland to convey irrigation runoff into a catch basin located at the southern end of the ditch, and is presumed to connect to the City of Gresham's stormwater system. Ditch 4 appears to have been excavated wholly from upland soils, therefore, Ditch 4 should not be considered jurisdictional.

#### Stormwater detention areas

Four stormwater detention areas are located along the southwestern property boundary. Although soils were not examined due to a riprap apron, vegetation consists of predominantly upland species. These detention areas appear to have been excavated wholly from upland soils, and therefore should not be considered jurisdictional.

# I. Results and Conclusions

Within the study area, PHS delineated eight wetlands, four ditches, a stream system, and an excavated pond. The total acreage of wetland and other waters, as well as the ditches and detention and irrigation ponds within the study area boundary are summarized in Table 2 below.

Table 2. Total wetland and other waters acreage within the LSI property in Gresham,
Oregon

Feature	Area (square feet)	Cowardin Class	HGM Class	Jurisdictional (Yes/No)		
				DSL	COE	
Wetland A	8,242	PEMC	Slope	Yes	No (isolated)	
Wetland B	9,063	PEMC	Slope	Yes	No (isolated)	
Wetland C	34,574	PSSC	Slope	Yes	No (isolated)	
Wetland D	5,578	PEMC	Slope	Yes	No (isolated)	
Wetland E	7,544	PEMC	Slope	Yes	Yes	
Wetland F	3,836	PEMC	Slope	Yes	Yes	
Wetland G [Pond]	64,293	PUBHx	Depressional/ Slope	Yes	Yes	
Wetland H	17,309	PEMC	Slope	Yes	Yes	
Wetlands (with WL G/pond)	150,438 sf					
Stream Complex	10,189	R3SB3	Riverine	Yes	Yes	
Other Waters	10,189					
Ditch 1 (with excavated depression)	26,290	PEMC	N/A	No	No	
Ditch 2	4,545	PEMC	N/A	No	No	
Ditch 3	9,387	PEMC	N/A	No	No	
Ditch 4	1,609	PEMC	N/A	No	No	
Stormwater detention areas	5,901	PEMCx	N/A	No	No	
Irrigation pond	5,313	PEMCx	N/A	No	No	
Other features	53,045 sf					
Total	213,672 sf (4.90 ac)			-		

# J. Required Disclaimer

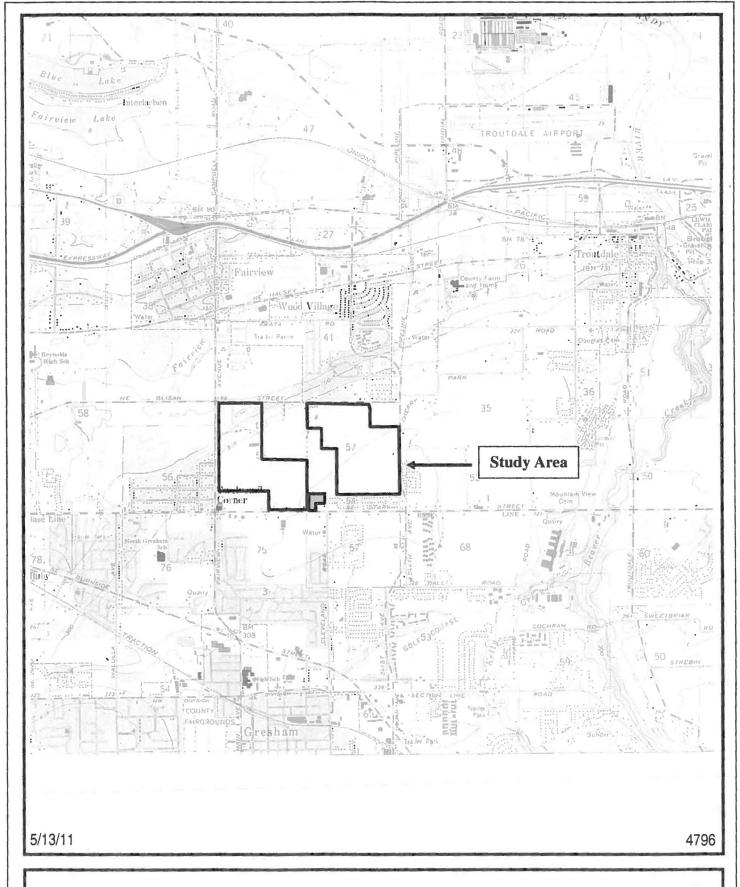
This report documents the investigation, best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been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

#### III. REFERENCES

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- US Geologic Survey. 1984. 7.5-minute topographic map, Camas Oregon and Washington quadrangle.
- U.S. Fish and Wildlife Service. 1975. NWI 7.5' Quadrangle Map Camas Oregon and Washington quadrangle.

# Appendix A

**Figures** 

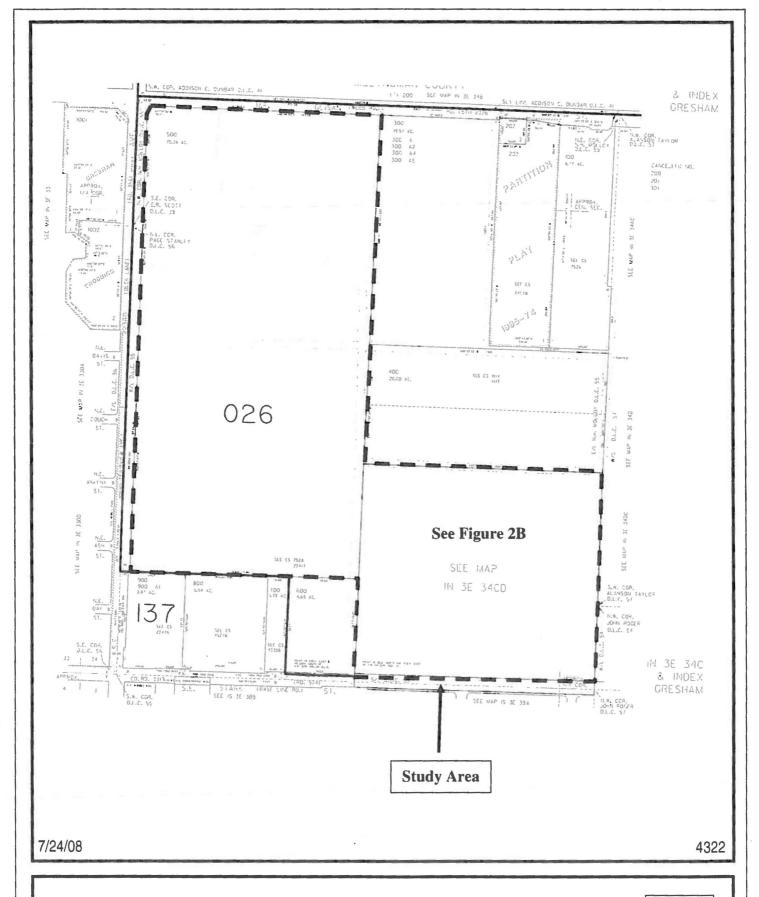


Location and general topography for the LSI Property in Gresham, OR (USGS Camas OR-WA quadrangle, 1961, photo revised 1975).

FIGURE 1



-Pacific Habitat Services, Inc. -



Tax Lot Map for the LSI Property in Gresham, OR (Tax Map 1N 3E 34C Lots 400 and 500).

FIGURE 2A



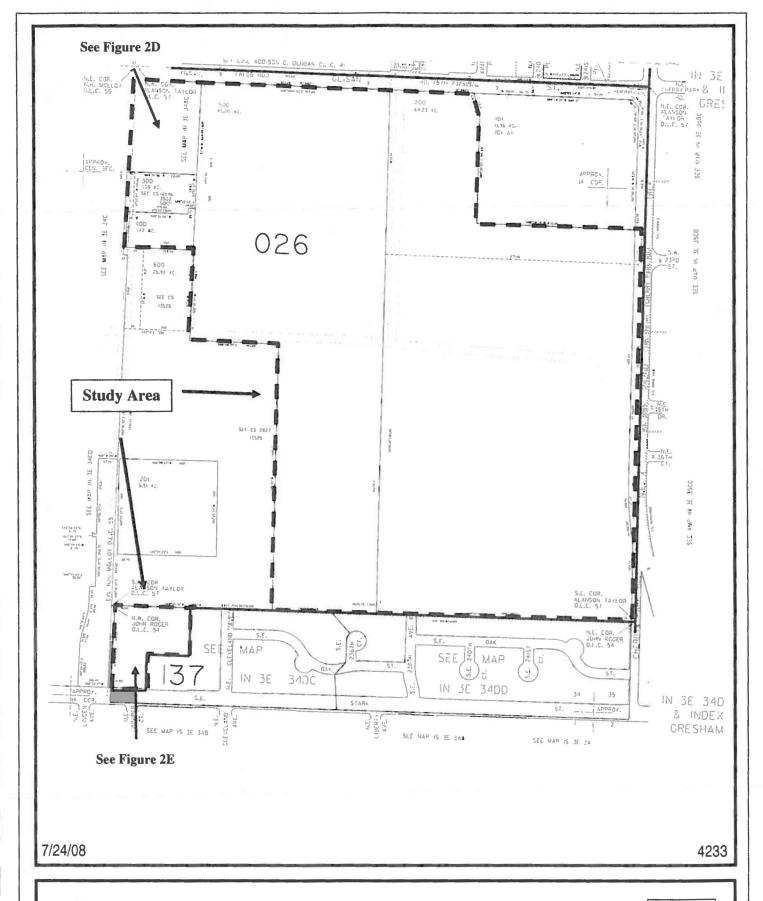


Tax Lot Map for the LSI Property in Gresham, OR (Tax Map 1N 3E 34CD Tax Lots 100, 200, 300, 400).

FIGURE 2B



-Pacific Habitat Services, Inc. -



Tax Lot Map for the LSI Property in Gresham, OR (Tax Map 1N 3E 34D tax Lots 200,300, 400, and 500, Tax Map 1N 3E 34AC tax Lots 1500 and 1600 (Figure 2D) and Tax Map 1N 3E 34DC tax Lot 1300 (Figure 2E)).

FIGURE 2C



-Pacific Habitat Services, Inc. -



Tax Lot Map for the LSI Property in Gresham, OR (Tax Map 1N 3E 34AC tax Lots 1500 and 1600).

FIGURE 2D



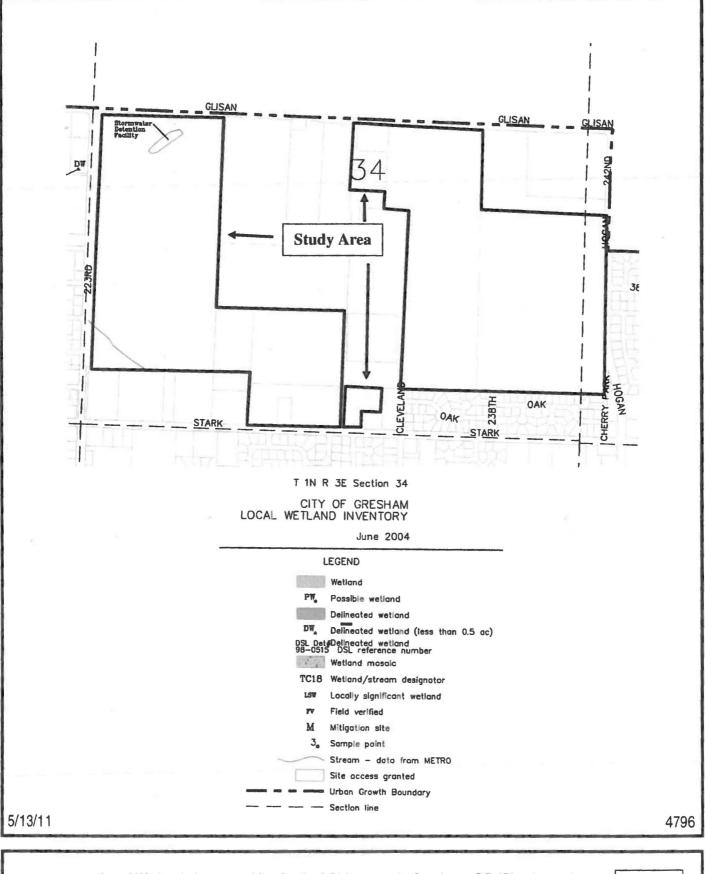
Pacific Habitat Services, Inc. -

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY S#1/4 SE1/4 SEC. 34 T.IN. R.3E. W.M. MULTNOMAH COUNTY GRESHAM SEF WAP IN 3E 34D 026 Study Area SEE HAP 15 3E 348 GRESHAM 7/24/08 4233

Tax Lot Map for the LSI Property in Gresham, OR (Tax Map 1N 3E 34DC tax Lot 1300).

FIGURE 2E



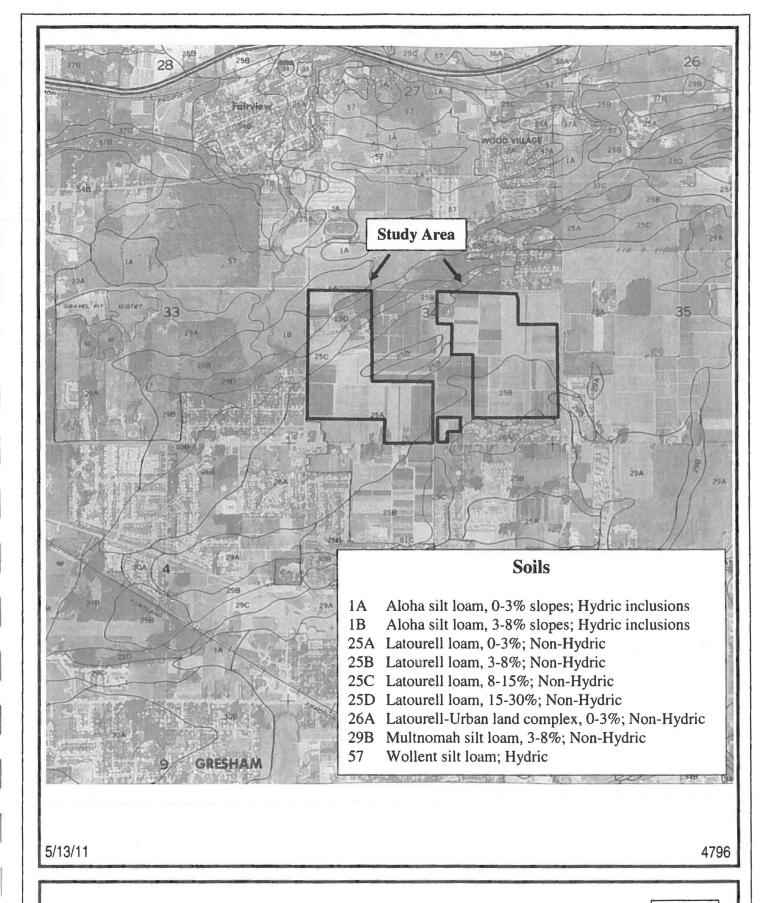


Local Wetlands Inventory Map for the LSI Property in Gresham, OR (Shapiro and Associates, 2004).

FIGURE 3



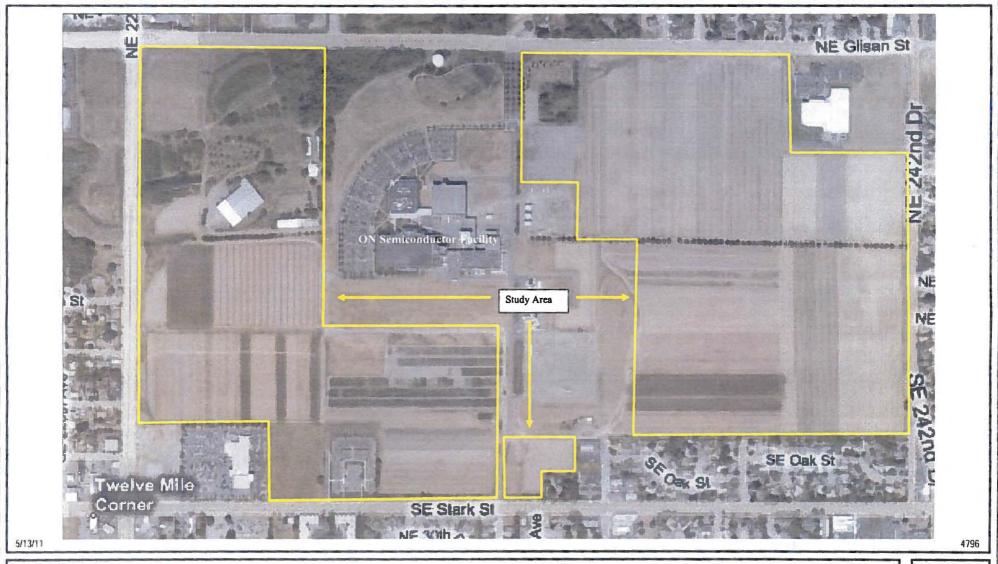
-Pacific Habitat Services, Inc. -



Soil Series Map of the LSI Property in Gresham, OR (NRCS Soil Survey Multnomah County, OR sheet 21).

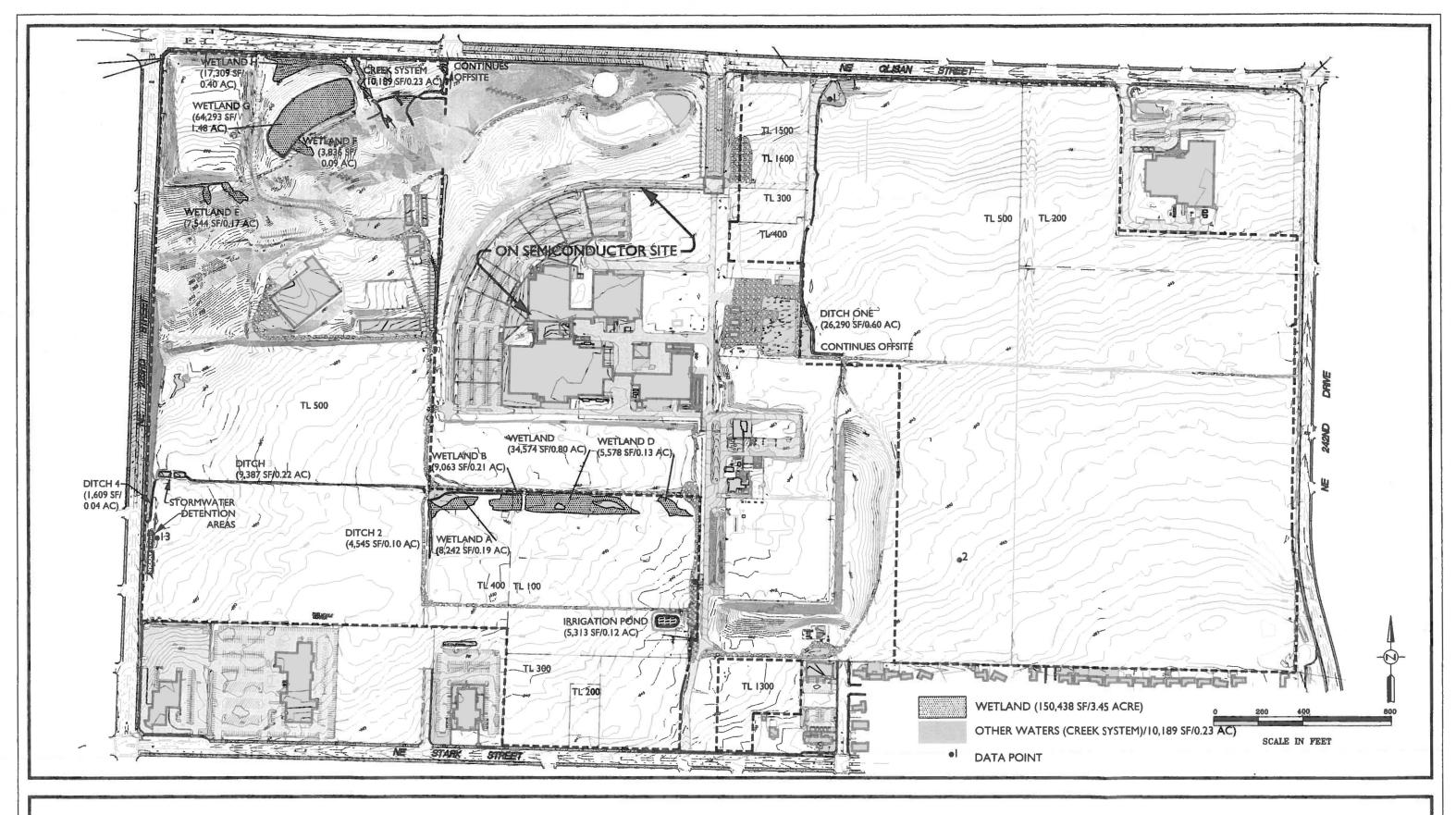
FIGURE 1





2007 aerial photo of the LSI Property in Gresham, OR (photo courtesy of LiveSearch website).

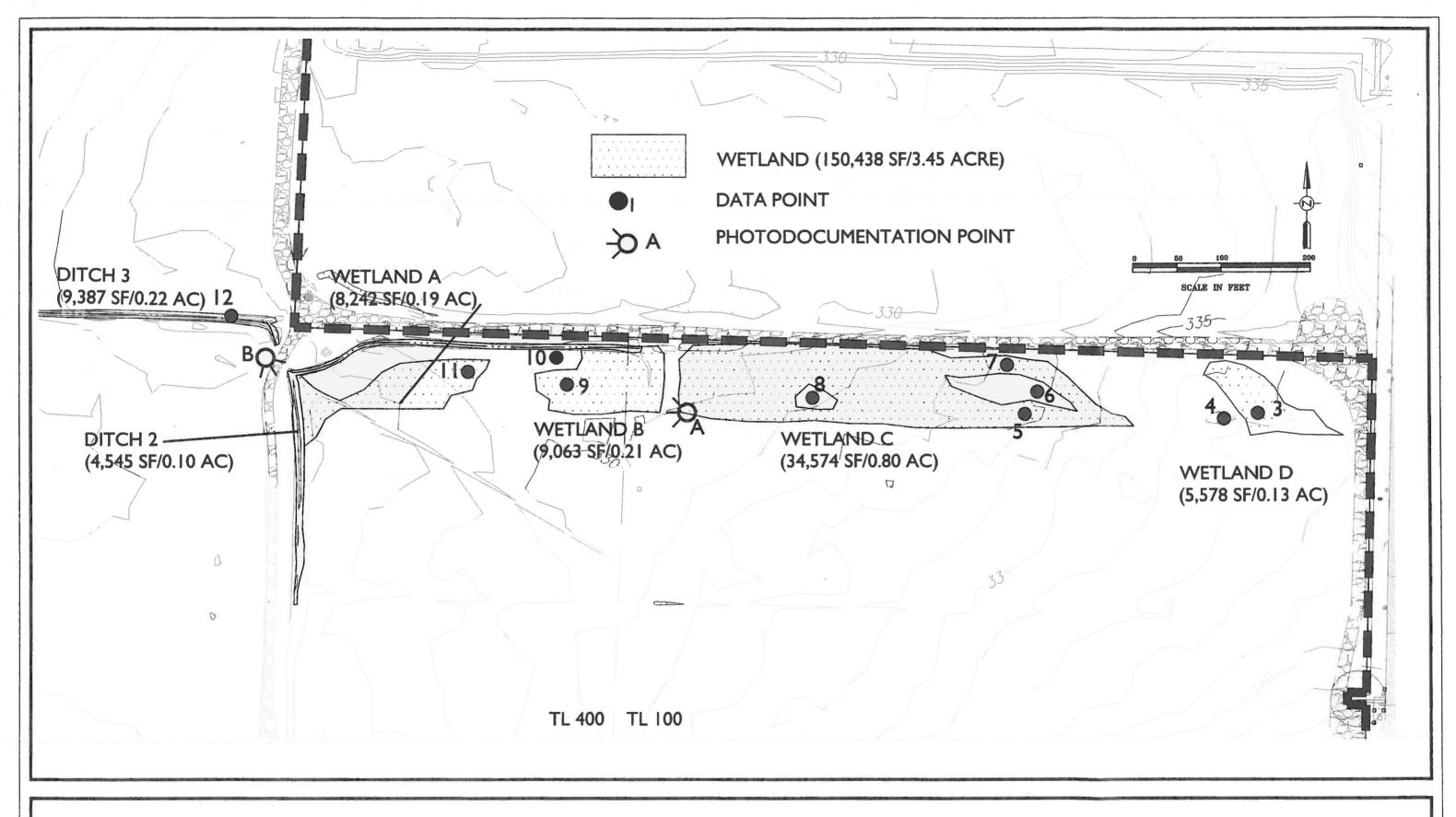
**FIGURE** 5



4796 5/10/11 Existing conditions, data points #1, #2, and #13, for the LSI property in Gresham, Oregon. Survey provided by Compass Engineering. Survey accuracy is sub—centimeter in original delineation; wetland boundaries for Wetlands A—D, and E were updated in 2011 using a resource grade GPS unit for sub—meter accuracy. Data point accuracy is +/- 1 meter. See Figure 6A and 6B for details of Wetlands A through H, location of photodocumentation points, and the creek system.

FIGURE 6

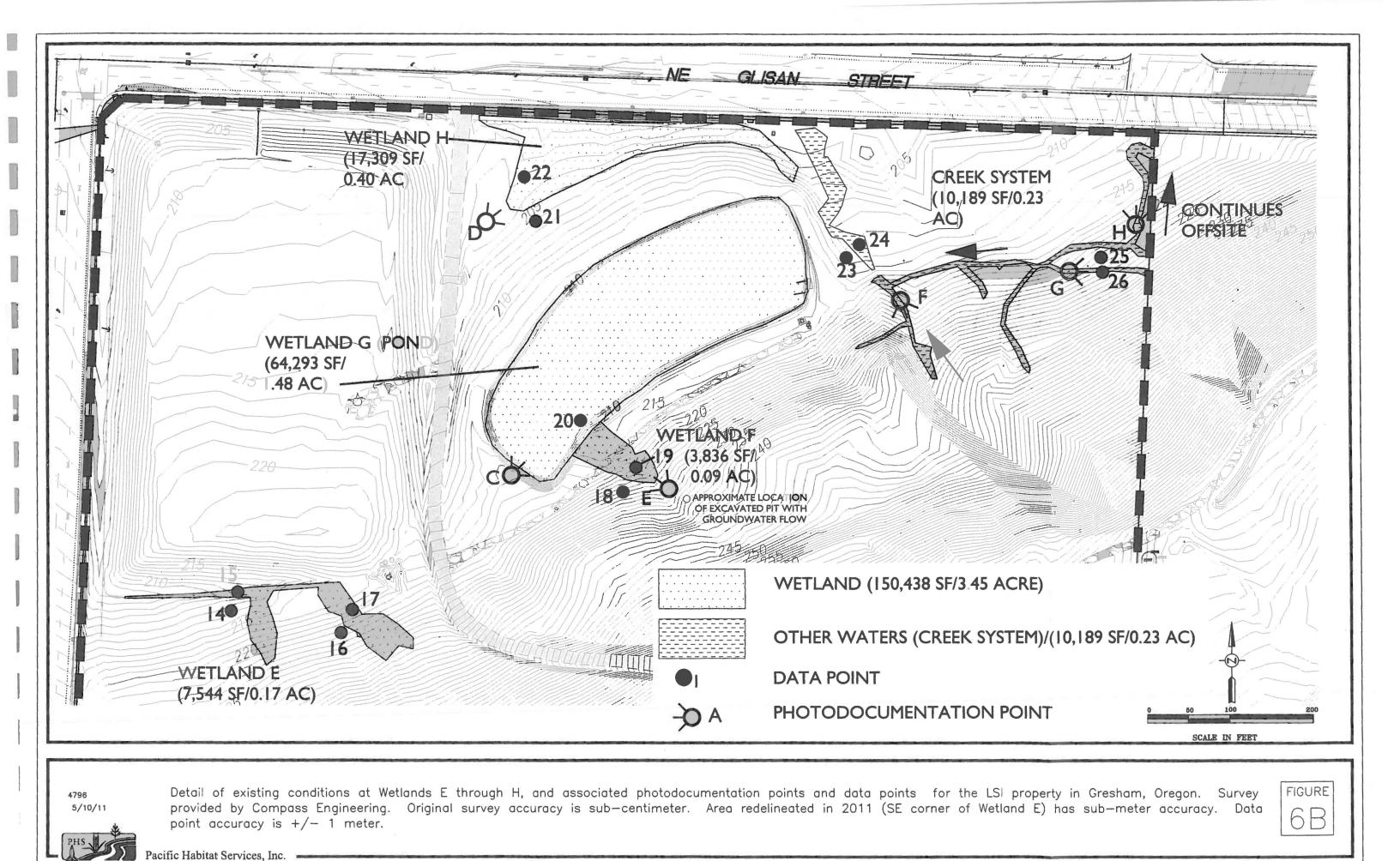
Pacific Habitat Services, Inc.



4796 5/10/1 Detail of existing conditions at Wetlands A through D, and associated photodocumentation points and data points for the LSI property in Gresham, Oregon. Survey provided by Compass Engineering. Original survey accuracy is sub—centimeter. Areas revisited in 2011 (Wetlands A—D) have sub—meter accuracy. Data point accuracy is +/- 1 meter.



Pacific Habitat Services, Inc.



# Appendix B

**Wetland Determination Data Sheets** 

PHS#

4796

# WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site:	LSI Proprty		City/County:	Gresh	am/Multnomah	Sampling Date:	7/1	5/2008
Applicant/Owner:	Port of Portland				State	OR	Sampling Point	1
Investigator(s)	DG		Section, To	wnship, Range	Township 1	IN/Range 3 East/S	ection 34D/TL	500
Landform (hillslope, t	errace, etc.:)	Hillslope	9	Local relief (cor	ncave, convex, none):	Slope	Slope (%)	<5%
Subregion (LRR)	A		Lat:	45°31'18.6	69" N Long:	122°25'29.78"W	Datum	
Soil Map Unit Name:		Lato	urell loam		NWI Cla	assification:	Upland	
Are climatic/hydrolog	ic conditions on the site	typical for this t	ime of year?	Yes	X No	(if no, expl	ain in Remarks)	
Are vegetation	Soil or Hy	ydrology	significantly dist	urbed?	Are "Normal Circumstane	ces" present? (Y/N)	Yes	-
Are vegetation	Soil or Hy	ydrology	naturally probler	natic? If needed	, explain any answers in Re	emarks.)		
SHMMADVOE	EINDINGS _ Att	ach eita mar	s chowing ca	ımplina poin	t locations, transec	te important for	aturas atc	
Hydrophytic Vegetati			X	inpling polit	t locations, transce	is, important rec	10103, 010.	
Hydric Soil Present?		No No		Is Sampled Ar			No X	
Wetland Hydrology P	_	No No		a Wetlan	id?		140 <u>X</u>	-
	Tesenti 100 _			<u> </u>	·			
Remarks: This area is local	ted in a depression	at the end of	f a ditch that c	onveys storm	water. No wetland ind	licators were obse	rved.	
	•							
VEGETATION -	Use scientific na	ames of plan	nts.					
		absolute	Dominant	Indicator	Dominance Test wor	rksheet:		
		% cover	Species?	Status				
Tree Stratum (pto	t size:)				Number of Dominant Spe			(4)
1					That are OBL, FACW, or	FAC:	2	_(A)
3					Total Number of Dominar	nt		
4					Species Across All Strata		5	(B)
		0	= Total Cover					- 1-2
Sanling/Shrub Stratu	ım (plot size:	1			Percent of Dominant Spe	ries		
1		-			That are OBL, FACW, or		40%	(A/B)
2								
3					Prevalence Index We	orksheet:		
4					Total % Cover of	Multiply by	<u>:</u>	
5					OBL Species	×1=		-
		0	= Total Cover		FACW species FAC Species	x 2 = x 3 =	0	-
Herb Stratum (plo	tsize: 5')				FACU Species	x3=	0	-
1 Achillea mille	the state of the s	5	Х	FACU	UPL Species	x 5 =	0	-
2 Trifolium rep	ens	5	X	FAC	Column Totals	<b>0</b> (A)	0	(B)
3 Daucus caro		2	Х	UPL				-
4 Hypochaeris		3	X	FACU	Prevalence Index =	B/A = #	DIV/0!	•
5 Mowed grass		10	X	(FAC)				
6					Hydrophytic Vegetat			
7						Dominance Test is >50 Prevalence Index is ≤		
8		25	= Total Cover			Morphological Adaptat		onino
		20	10.0100761		10-10-10-10-10-10-10-10-10-10-10-10-10-1	data in Remarks or on		
Woody Vine Stratum	(plot size:	)				Wetland Non-Vascular	Plants <sup>1</sup>	
1						Problematic Hydrophy	tic Vegetation¹ (l	Explain)
2								
		0	= Total Cover		<sup>1</sup> Indicators of hydric soil a disturbed or problematic.	and wetland hydrology	must be present,	unless
					Hydrophytic			
% Bare Ground in H	erb Stratum	75			Vegetation	Yes	No	X
Remarks					Present?			
Remarks.								

SOIL			PHS#	4	796			Sampling Point:	1
	otion: (Describe to t	he depth	needed to docun			nfirm the absen	ce of indicators.)		
Depth	Matrix		0-1		ox Features Type <sup>1</sup>	Loc²			
(Inches)	Color (moist)	<u>%</u>	Color (moist)	%	Туре	LOC	Texture	Remarks	
0-5	10YR 3/3	100					Silt Loam		
5-16	10YR 3/4	100	***************************************				Sandy Loam		
				-	-				
	centration, D=Depletion							<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	3
	Indicators: (Appli	icable to	all LRRs, unle	ss otherv			Indica	ators for Problematic Hydric Soils	<b>3</b> ":
	Histosol (A1)				Sandy Redo	15 (5)		2 cm Muck (A10)	
	Histic Epipedon (A2)				Stripped Ma			Red Parent Material (TF2)	
	Black Histic (A3)				-	ky Mineral (F1) (	except MLRA 1)	Other (explain in Remarks	)
	Hydrogen Sulfide (A4				•	ed Matrix (F2)			
	Depleted Below Dark		A11)		Depleted Ma	* 6			
	Thick Dark Surface (A				-	Surface (F6)		<sup>3</sup> Indicators of hydrophytic vegetation and	haelland
	Sandy Mucky Mineral	l (S1)			-	rk Surface (F7)		hydrology must be present, unless distr	
	Sandy Gleyed Matrix	(S4)			Redox Depre	essions (F8)		problematic	
MOO!									
Type: Depth (inches Remarks:	s):	N	one				Hydric Soil Pres	eent? Yes No	x
Depth (inches		N	one		_		Hydric Soil Pres	sent? Yes No	X
Depth (inches	GY		one				Hydric Soil Pres	sent? Yes No	x
Depth (inches Remarks:  HYDROLO Wetland Hyd	GY drology Indicator	s:					Hydric Soil Pres	sent? Yes No	X
Depth (inches Remarks:  HYDROLO Wetland Hyde Primary India	GY drology Indicator cators (minimum o	s:		that apply				Secondary Indicators (2 or more re	
Pepth (inches  Remarks:  HYDROLO  Wetland Hydrimary India	GY drology Indicator	s: f one req		that apply		ed Leaves (B9) (			equired)
Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1)	s: f one req		that apply	Water staine	d 4B)		Secondary Indicators (2 or more roward Water stained Leaves (89)	equired)
Pepth (inches	<b>GY</b> drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2	s: f one req		that appiy	Water staine 1, 2, 4A, and Salt Crust (B	d 4B)		Secondary Indicators (2 or more re Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)	equired)
Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	rs: If one req		that apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve	d <b>4B)</b> 311)	Except MLRA	Secondary Indicators (2 or more reward Leaves (89)  (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)	equired)
Primary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	rs: If one req		that apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve	d 4B) 311) rtebrates (B13) ulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more re Water stained Leaves (89) (MLRA1, 2, 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (6	equired)
Primary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	rs: f one req 2)		that appiy	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh	d 4B) 311) rtebrates (B13) ulfide Odor (C1)	Except MLRA g Living Roots (C3)	Secondary Indicators (2 or more re Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (G) Saturation Visible on Aeria	equired)
Pepth (inches	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	rs: f one req 2)		that apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen St Oxidized Rh Presence of	d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres alon	Except MLRA  g Living Roots (C3) C4)	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (Compared to the compared to the com	equired)
Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	s: f one req (2) (32)		that apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron	d 48) 311) Intebrates (B13) Ulfide Odor (C1) Izospheres aloni Reduced Iron (C	Except MLRA  g Living Roots (C3)  C4)  owed Soils (C6)	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (Comparison Visible on Aeria Geomorphic Position (D2)  Shallow Aquitard (D3)	equired) ) C2) I Imagery (
Primary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	rs: f one req 2) 32) 4)	juired; check all	that apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 48)  In the state (B13)  In the state (B13)	Except MLRA  g Living Roots (C3)  C4)  owed Soils (C6)	Secondary Indicators (2 or more rewards Water stained Leaves (89) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (Control of the Control of the Cont	equired) ) C2) It Imagery (
Pepth (inches	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (	s: f one req 2) 32) 4) B6) Aerial Ima	juired; check all	that apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ti 48)  intebrates (B13)  ulfide Odor (C1)  izospheres alon  Reduced Iron (C  Reduction in Plot  tressed Plants (	Except MLRA  g Living Roots (C3)  C4)  owed Soils (C6)	Secondary Indicators (2 or more rewards water stained Leaves (89) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (6 Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (I	equired) ) C2) It Imagery (
Pepth (inches	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on	s: f one req 2) 32) 4) B6) Aerial Ima	juired; check all	that apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ti 48)  intebrates (B13)  ulfide Odor (C1)  izospheres alon  Reduced Iron (C  Reduction in Plot  tressed Plants (	Except MLRA  g Living Roots (C3)  C4)  owed Soils (C6)	Secondary Indicators (2 or more rewards water stained Leaves (89) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (6 Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (I	equired) ) C2) It Imagery ((
Primary India	GY drology Indicator cators (minimum of 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 Covations:	s: f one req 2) 32) 4) B6) Aerial Ima	juired; check all		Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	ti 48)  intebrates (B13)  ulfide Odor (C1)  izospheres alon  Reduced Iron (C  Reduction in Plot  tressed Plants (	Except MLRA  g Living Roots (C3)  C4)  owed Soils (C6)	Secondary Indicators (2 or more rewards water stained Leaves (89) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (6 Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (I	equired) ) C2) It Imagery (C
HYDROLO Netland Hydrimary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes	s: f one req 2) 32) 4) B6) Aerial Ima	juired; check all agery (B7) aurface (B8)	Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ti 48)  intebrates (B13)  ulfide Odor (C1)  izospheres alon  Reduced Iron (C  Reduction in Plot  tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soits (C6) D1) (LRR A)	Secondary Indicators (2 or more rewards water stained Leaves (89) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (6 Saturation Visible on Aeria Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (I	equired) ) C2) It Imagery (C
HYDROLO Wetland Hy Primary India	GY drology Indicator cators (minimum of 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 Covations: Present? Yes resent? Yes sent? Yes	s: f one req 2) 32) 4) B6) Aerial Ima	guired; check all agery (B7) aurface (B8)	Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	ti 48)  intebrates (B13)  ulfide Odor (C1)  izospheres alon  Reduced Iron (C  Reduction in Plot  tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soits (C6) D1) (LRR A)	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (Casturation Visible on Aeria Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (Interpretation (D5))  Frost-Heave Hummocks (D6)	equired) ) C2) It Imagery (C
HYDROLO Wetland Hydrimary India Field Obser Surface Water Vater Table Per Saturation Presenctudes capillar	GY drology Indicator cators (minimum of 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 Covations: Present? Yes resent? Yes sent? Yes	s: f one req 2) 32) 4) B6) Aerial Ima	guired; check all	Depth Depth Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain in (inches):	at 4B) at 1) retebrates (B13) ulfide Odor (C1) izospheres alone Reduced Iron (C Reduction in Plotressed Plants ( in in Remarks)	Except MLRA  g Living Roots (C3) C4) owed Soits (C6) D1) (LRR A)  Wetland Hydi	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (Casturation Visible on Aeria Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (Information of the prost-Heave Hummocks (D6))  Prost-Heave Hummocks (D6)	equired) ) C2) It Imagery ((

PHS#	
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4796

# WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site:	LSI Pr	operty		City/County:	Gresh	am/Multno	mah	Sampling Date:	9/9	9/2008
Applicant/Owner:	Port of Por	tland					State: _	OR	Sampling Point	2
nvestigator(s)		AH		Section, To	wnship, Range:		Township 1N	/Range 3 East/S	Section 34D/TL	500
andform (hillslope, te	rrace, etc.:)		Hillslope		Local relief (con	cave, convex	(, none):	Slope	Slope (%)	<5%
ubregion (LRR):	,	Α		Lat:	45°31'18.6	69" N	Long:	122°25'29.78"W	/ Datum	
oil Map Unit Name			Latou	irell ioam			NWI Class	sification:	Upland	
re climatic/hydrologic				me of year?	Yes	X	No	(if no, exp	lain in Remarks)	
re vegetation	Soil	or Hy	drology	significantly dist	urbed?	Are "Norma	al Circumstance:	s" present? (Y/N)	Yes	
re vegetation							answers in Rem	arks.)		•
UMMARY OF F	INDINGS	- Atta	ch site map	showing sa	ampling poin	t location	s, transects	, important fe	atures, etc.	
lydrophytic Vegetatio	n Present?	Yes _	No No	X	Is Sampled Are	as within				
lydric Soil Present?		Yes	No No		a Wetlan	d?	Yes _		No X	-
Vetland Hydrology Pr	esent?	Yes	No No	X						
lemarks:								187		<del></del>
ypical condition	for eastern	parcel	s; within nurs	ery operation	1.					
EGETATION -	Use scien	tific na	mes of plan							
			absolute	Dominant	Indicator	Dominan	ce Test work	sheet:		
ree Stratum (plot	cizo. 3	<b>(0</b> )	% cover	Species?	Status	Number of	Dominant Specie			
Picea sp. (nur			80	x	NOL		SL, FACW, or FA		0	(A)
2	sery stock)				1102	That are Ob	JE, 1 AOVV, 01 1 A			- (^)
						Total Numb	er of Dominant			
							ross All Strata		1	(B)
			80	= Total Cover						• ` '
apling/Shrub Stratur	n (nInt size:		)			Percent of C	Dominant Specie			
1	<u>u</u> (piot 3126.		-'			1	BL, FACW, or F		0%	(A/B)
2								-		- ' '
3						Prevalence	ce Index Wor	ksheet:		
4						Total % Cov	ver of	Multiply b	<u>y</u>	
5						OBLS	Species	x 1 =	0	
			0	= Total Cover		1	species	x 2 =		-
O (alat	oi so:						Species	x3=		•
lerb Stratum (plot 1	size:						Species	× 4 = × 5 =		-
2							n Totals	0 (A)	0	(B)
3						Colum		(//		- (6)
4						Preva	lence Index =B/	A = 1	#DIV/0!	
5										•
6						Hydrophy	tic Vegetatio	n Indicators:		
7							Do	ominance Test is >5	50%	
8								evalence Index is ≤		
			0	= Total Cover		_		orphological Adapta		
landy Vinc Ctt	(plot size		N.					ita in Remarks or or etland Non-Vascula		t)
loody Vine Stratum			_'			_		oblematic Hydrophy		Evolain)
1 2		-				-		obiomatio riyuropii)	, rogolation (t	-Apidini)
<u> </u>			0	= Total Cover		¹Indicators o	of hydric soil and	i wetland hydrology	must be present	unless
				Total Cover			problematic.			
	aa.					Hydrophy		V	2 =	
% Bare Ground in He	rb Stratum		10			Vegetatio	n	Yes	No	X
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Present?				

SOIL	*		PHS#	4796			Sampling Point:	2
Profile Descri	ption: (Describe to the	ne depth i	needed to documer	nt the indicator or cor	ifirm the absen	ice of indicators.)		
Depth	Matrix			Redox Features		•		
(Inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-20	10YR 4/4	100				Silt Loam		
				<del></del>				
				Covered or Coated San			<sup>2</sup> Localion: PL=Pore Lining, M=Matri	
Hydric Soil	Indicators: (Appli	cable to	all LRRs, unless	otherwise noted.		Indic	ators for Problematic Hydric S	oils":
	Histosol (A1)			Sandy Redo	x (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped Ma	trix (S6)		Red Parent Material (1	F2)
	Black Histic (A3)			Loamy Muck	ky Mineral (F1) (	except MLRA 1)	Other (explain in Rema	arks)
	Hydrogen Sulfide (A4)	i	7	Loamy Gley	ed Matrix (F2)			
	Depleted Below Dark	Surface (A	A11)	Depleted Ma	itrix (F3)			
	Thick Dark Surface (A	12)		Redox Dark	Surface (F6)			
	Sandy Mucky Mineral	(S1)		Depleted Da	rk Surface (F7)		Indicators of hydrophytic vegetation hydrology must be present, unless	
	Sandy Gleyed Matrix	(S4)		Redox Depre	essions (F8)		problematic.	disturbed or
Restrictive	Layer (if present):					T		
	Layer (ii precent).							
Type:		- N	one			Undein Sait Base	anto Van	v
Depth (inche	s):					Hydric Soil Pres	sent? Yes No	X
Remarks:								
HYDROLO	NCV							
	drology Indicator	e.						
_								
Primary Indi	cators (minimum of	one req	uired; check all th				Secondary Indicators (2 or mo	re required)
	Surface Water (A1)				ed Leaves (B9) (	Except MLRA	Water stained Leaves	Security Co.
	High Water Table (A2	2)		1, 2, 4A, and	1 46)		(MLRA1, 2, 4A, and 4	ъ)
	Saturation (A3)			Salt Crust (B	11)		Drainage Patterns (B1	0)
	Water Marks (B1)			Aquatic Inve	rtebrates (B13)		Dry-Season Water Tab	ole (C2)
	Sediment Deposits (B	(2)		Hydrogen Si	ulfide Odor (C1)		Saturation Visible on A	
	Drift Deposits (B3)			Oxidized Rh	izospheres alon	g Living Roots (C3)	Geomorphic Position (	D2)
	Algal Mat or Crust (B4	1)		Presence of	Reduced Iron (0	C4)	Shallow Aquitard (D3)	
	Iron Deposits (B5)				Reduction in Plo		Fac-Neutral Test (D5)	
	Surface Soil Cracks (I	B6)		Stunted or S	tressed Plants (	(D1) (LRR A)	Raised Ant Mounds (D	6) (LRR A)
	Inundation Visible on	Aerial Ima	igery (B7)	Other (Expla	in in Remarks)		Frost-Heave Hummocl	(S (D7)
	Sparsely Vegetated C	oncave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches):				
Water Table F	Present? Yes		No X	Depth (inches):		Wetland Hyd	rology Present?	
Saturation Pre			No X	Depth (inches):			Yes No	X
(includes capilla								
Describe Reco	orded Dala (stream ga	uge, moni	toring well, aerial ph	otos, previous inspection	ons), if available			
None								
Remarks:							<del></del>	

PHS#

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### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site:	LSI Property	Y	City/County:	Gresh	am/Multnomah	Sam	pling Date:	4/2	2/2011
Applicant/Owner:	Port of Portland				Stat	e: OR	S	ampling Point	3
Investigator(s):	FS/SE		Section, To	wnship, Range:	Township	1N/Range	3 East/Sect	ion 34CD/T	L 100
Landform (hillslope, te	race, etc.:)	Terrace		Local relief (cor	ncave, convex, none):		Slope	Slope (%)	<5
Subregion (LRR):	Α		Lat:	45°31'18.	<b>69" N</b> Lon	g: <b>122°2</b>	5'29.78" W	Datum	
Soil Map Unit Name		Lato	urell loam		NWI	Classification	:		
Are climatic/hydrologic	conditions on the site	typical for this ti	me of year?	Yes	X	lo	(if no, explain		
Are vegetation	Soil or Hy	ydrology	significantly dist	turbed?	Are "Normal Circumsta	ances" prese	nt? (Y/N)	Υ	
Are vegetation	Soil or Hy	ydrology	naturally proble	matic? If needed	, explain any answers in	Remarks.)			
				wen no		No.			
				ampling poin	t locations, transe	ects, impo	ortant featu	ires, etc.	
Hydrophytic Vegetation	** <del></del>	X No		is Sampled Ar	ea within				
Hydric Soil Present?	Yes _	X No		a Wetlan		s <u>X</u>	_ No		•
Wetland Hydrology Pro	esent? Yes _	X No							
Remarks:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
in wetland D.									
/=0==4=1011									
VEGETATION -	Use scientific na	ames of plar absolute	Dominant	Indicator	Dominance Test w	orkehoot:			
		% cover	Species?	Status	Dominance rest w	orvarieer:			
Tree Stratum (plot s	size: )				Number of Dominant S	pecies			
1					That are OBL, FACW,			3	(A)
2									•
3					Total Number of Domin	ant			
4					Species Across All Stra	eta:	-	3	(B)
		0	= Total Cover						
Sapling/Shrub Stratum	(plot size:	_)			Percent of Dominant S	pecies			
1					That are OBL, FACW,	or FAC:	10	0%	(A/B)
2									
3					Prevalence Index \	<b>Vorksheet</b>	:		
4					Total % Cover of	_	Multiply by:		
5					OBL Species		- ×1=		
		0	= Total Cover		FACW species FAC Species		- x2= x3=	0	•
Herb Stratum (plot :	size: 5 )				FACU Species		- x4=	0	•
1 Scirpus taberr		20	X	OBL	UPL Species		- x 5 =	0	•
2 Typha latifolia		2		OBL	Column Totals	0	(A)	0	(B)
3 Festuca arund		10	X	FAC			-		•
4 Agrostis stolo	nifera	30	X	FAC	Prevalence Index	=B/A =	#DI	V/01	
5 Juncus tenuis		3		FACW					
Holcus lanatus		8		FAC	Hydrophytic Veget				
7 Epilobium wat	sonii	2		FACW		-	est for Hydroph		n
8		7.			X	where	nce Test is >50 ice Index is ≤ 3		
			= Total Cover			_	ice index is s 3 ogical Adaptation		supporting
Woody Vine Stratum	(plot size:	)				-	marks or on a s		
1							Non-Vascular		•
2						- Problemati	c Hydrophytic \	/egetation1 (E	explain)
		0	= Total Cover		<sup>1</sup> Indicators of hydric soi	- I and wetland		1.5	
					disturbed or problemation	C.			
	. 0.	25			Hydrophytic Vegetation	Yes	X	No	
% Bare Ground in Her	n Stratum								

gravels/cobbles- soil only a few inches thick over cobble in some areas.

-	-		
<i>a</i> .	m	ч	

PHS#	4796

	200			
Sa	mpli	na	Poi	nt.
Ou	HIPI	1114	. 0	

-

D 411 - 1											
Profile Descrip	ption: (Describe to	the depth	needed to docume			ıflrm the absen	ce of Indicators.)				
Depth (Isabas)	Matrix Color (maist)	%	Color (moisl)	Redo:	x Features Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
(Inches) 0-6	N 2.5/	50	Color (moisi)		Турс		Sandy Loam	Remarks			
	N 2.5/						Sandy Loan	gravel			
0-6	No.5	50	4000 0/0				Candulas	gravel			
6-8	N.2.5	40	10YR 3/3	20	C	M	Sandy Loam	c motts			
6-8		40						gravel/cobble			
8+								refusal due to larger cobbles (>6"D)			
							<del></del>				
<sup>1</sup> Type: C=Conc	centration, D=Deplet	on, RM=R	educed Matrix, CS=	Covered or	Coated San	d Grains.		<sup>2</sup> Location: PL=Pore Lining, M=Matrix			
Hydric Soil I	Indicators: (Appl	icable to	all LRRs, unles	s otherw	ise noted.		Indica	ators for Problematic Hydric Soils <sup>3</sup> :			
	Histosol (A1)				Sandy Redo	x (S5)		2 cm Muck (A10)			
ŀ	Histic Epipedon (A2)				Stripped Ma	trix (S6)		Red Parent Material (TF2)			
E	Black Histic (A3)				Loamy Muck	y Mineral (F1) (	except MLRA 1)	Very Shallow Dark Surface (TF12)			
ŀ	Hydrogen Sulfide (A	4)			Loamy Gley	ed Matrix (F2)		Other (explain in Remarks)			
	Depleted Below Darl	Surface (/	A11)		Depleted Ma	itrix (F3)					
1	Thick Dark Surface (	A12)		X	Redox Dark	Surface (F6)					
	Sandy Mucky Minera	l (S1)			Depleted Da	rk Surface (F7)		Indicators of hydrophytic vegetation and wetland			
	Sandy Gleyed Matrix	(S4)			Redox Depre	essions (F8)		hydrology must be present, unless disturbed or problematic.			
Restrictive I	Layer (if present)		<del></del>				Γ				
Type:		14	one		-		I hadria Call Dave	and Var. V			
Depth (inches	5)-						Hydric Soil Pres	ent? Yes X No			
HYDROLO	GY										
	drology Indicato	rs:	<del></del>								
Primary Indic	cators (minimum o	of one req	uired; check all t	hat apply)				Secondary Indicators (2 or more required)			
	Surface Water (A1)					d Leaves (B9) (	Except MLRA	Water stained Leaves (B9)			
	High Water Table (A	2)			1, 2, 4A, and			(Except MLRA1, 2, 4A, and 4B)			
X	Saturation (A3)				Salt Crust (E	311)		X Drainage Patterns (B10)			
1	Water Marks (B1)				Aquatic Inve	rtebrates (B13)		Dry-Season Water Table (C2)			
{	Sediment Deposits (	B2)			Hydrogen Si	ulfide Odor (C1)		Saturation Visible on Aerial Imagery (			
Drift Deposits (B3)					Oxidized Rh	izospheres alon	g Living Roots (C3)	X Geomorphic Position (D2)			
/	Algal Mat or Crust (E	34)			Presence of	Reduced Iron (	C4)	Shallow Aquitard (D3)			
!	Iron Deposits (B5)				Recent Iron	Reduction in Pto	owed Soils (C6)	Fac-Neutral Test (D5)			
	Surface Soil Cracks	(B6)			Stunted or S	tressed Plants (	D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)			
!	Inundation Visible or	Aerial Ima	egery (B7)		Other (Expla	in in Remarks)		Frost-Heave Hummocks (D7)			
X	Sparsely Vegetated	Concave S	urface (B8)								
Field Observ	vations:			****							
Surface Water	Present? Yes		No X	Depth	(inches):						
Water Table Pr	resent? Yes	X	No	Depth	(inches):	7	Wetland Hydr	drology Present?			
	sent? Yes	X	No	Depth	(inches).	0		Yes X No			
Saturation Pres	y fringe)										
(includes capillary	y fringe) orded Data (stream g	auge, moni	itoring well, aerial pl	notos, previ	ous inspection	ons), if available					
(includes capillar)		auge, moni	itoring well, aerial pl	notos, previ	ous inspection	ons), if available					
(includes capillary  Describe Reco		auge, moni	itoring well, aerial pi	notos, previ	ous inspection	ons), if available					
(includes capillary  Describe Reco		auge, moni	itoring well, aerial pl	notos, previ	ous inspection	ons), if available					

PHS#

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# WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site:	LSI Property			City/County Gresha			am/Multnomah			Sampling Date:		2/2011
Applicant/Owner:	Port of Portland						State:			OR S		4
Investigator(s) FS/SE				Section, Township, Range			Township 1N/Range 3 East/Se				ion 34CD/T	L 100
Landform (hillslope, terrace, etc.:)						Local relief (concave, conv						<5
Subregion (LRR).		Α		Lat	45°31'	18.69" [	<u>v</u>	Long:	122°25	'29.78" W	Datum:	
Soil Map Unit Name:			Lato	urell loam			N	IWI Clas	sification:		Upland	
Are climatic/hydrologi					Y	'es	X	No		(if no, explain	in Remarks)	
Are vegetation	Soil	or Hy	drology	significantly dist	urbed?	Are	"Normal Circu	mstance	es" presen	t? (Y/N)	Y	
Are vegetation				naturally proble		ded, exp	ain any answer	rs in Ren	narks.)		-	
			-	•								
SUMMARY OF	FINDINGS	- Atta	ch site map	showing sa	mpling p	oint lo	cations, tra	nsect	s, impo	rtant featu	ıres, etc.	
Hydrophytic Vegetation	on Present?	Yes _	X No		is Sample	d Area w	thin					
Hydric Soil Present?		Yes	No No	X		etiand?		Yes_		. No	<u> </u>	
Wetland Hydrology P	resent?	Yes	No.	X								
Remarks:												
[												
VECETATION	Han anion	titie no	mas of plan	-to							<del></del>	
VEGETATION -	USE SCIEN	unc na	absolute	Dominant	Indicato	r Do	minance Tes	st work	sheet:			
			% cover	Species?	Status							
Tree Stratum (plot	size:	)				Nur	nber of Domina	ant Speci	ies			
1						Tha	t are OBL, FAC	CW, or F	AC:		1	(A)
2												
3						Tot	al Number of Do	ominant				
4						Spe	cies Across All	Strata:	,		1	(B)
				= Total Cover								
Sapling/Shrub Stratus	m (plot size:		)			Per	cent of Domina	nt Speci	es			
1						Tha	t are OBL, FAC	CW, or F	AC:	10	0%	(A/B)
2						_  _				·		
3					-	- 1	evalence Ind	ex Wor				
4						Tot	al % Cover of			Multiply by:	-	
5				= Total Cover			OBL Species	_		x 1 = x 2 =	0	
				= Total Cover		ł	FACW species	_		x 2 = x 3 =	0	
Herb Stratum (plot	size:	5 )					FACU Specie	_		x 4 =	0	
1 Leontodon nu	ıdicaulis		5		UPL	_	UPL Species	· _		x 5 =	0	
2 Plantago lanc			4		FAC	_	Column Totals	s _	0	(A)	0	(B)
3 Trifolium prat			2		FACU	_						
4 Agrostis stole			70	X	FAC		Prevalence Ir	ndex =B/	/A =	#DI	V/01	
5 Daucus carot	a		2		UPL	-						
7 Rumex acetos			1		UPL	—   <sup>Hy</sup>	drophytic Ve	=				
8 Trifolium repe			<u>2</u>		FAC		x			ce Test is >50	nytic Vegetatio	n
0			90	= Total Cover	FAC	-	^			ce rest is >50 ce Index is ≤ 3	0.00	
			30	- Total Cover							ons¹ (provide s	upporting
Woody Vine Stratum	(plot size:		)				(n	da	ata in Rem	narks or on a s	separate sheet	)
1								5-	- Wetland	Non-Vascular	Plants <sup>1</sup>	
2											Vegetation <sup>1</sup> (E	D 2
			0	= Total Cover			icators of hydric		d wetland	hydrology mu	st be present,	unless
							urbed or proble drophytic	matic.				
% Bare Ground in He	erb Stratum		5				getation		Yes	Х	No	
							sent?					
Remarks:	other fine	araccas	mived in wi	th Agrastic								

Depth (inches): Hydric Soil Present? Yes No X				PHS#	4796	<u> </u>			Sampling Poin	t: <u>4</u>
	rofile Descr	The second second	he depth	needed to docume			irm the abse	nce of Indicators.)		
0-4				0.1			1 2		5	
O-4   O-10				Color (maist)		Туре	LOC		Rem	arks
4-10 10 YR 3/3 40 grave!  4-10 10 10 cobble  4-10 10 cobble  4-10 10 10 cobble  4-10 cobble  4	0-4	10YR 3/3						Sandy Loam,		
4-10	0-4		20						gravel	
4-10 10 10 10 rock  4-10 10 10 10 rock  Type: C-Concentration, D-Depletion, RM-Fladuced Matrix, CS-Covered or Coaled Sand Grains.  FLocation, FL-Pore Lining, M-Matrix, Wider, Soil Indicators for Problematic Hydric Soils 1: Indicators for Problematic Hydric Soils 1: Hallaced (A1) Sandy Redox (S5) 2 cm Muck (A10)  Hallaced (A1) Sandy Redox (S5) 2 cm Muck (A10)  Hallaced (A2) Siloped Matrix (S8) Red Parent Medical (FP2)  Hydrogen Suifide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12)  Hydrogen Suifide (A4) Loamy Gleyed Matrix (F2) Other (explain in Remarks)  Black Histic (A3) Depleted Selevo Dark Surface (A11) Depleted Matrix (F2)  Thick Dark Surface (A12) Redox Dark Surface (F7)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)  Popleted Dark Sur	4-10	10YR 3/3	40					Sandy Loam		
Autonome	4-10		40						gravel	
Type: C=Concentration. D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains.  1-	4-10		10						cobble	
Secondary   Indicators   Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Solis   Applications   Applic	4-10		10						rock	
Secondary   Indicators   Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Solis   Applications   Applic				-						
Histosol (A1) Hatic Epipedion (A2) Hatic Epipedion (A2) Strippod Matrix (S6) Red Parent Material (TF2) Hortogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Vary Shaltow Dark Surface (TF12) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Pepleted Dark Surface (F7) Sandy Gleyed Metrix (S4) Redox Dark Surface (F7) Problematic  Redox Dark Surface (F7)	ype: C=Con	centration, D=Depletion	on, RM=R	educed Matrix, CS=	Covered or Co	oated Sand	I Grains.		<sup>2</sup> Location: PL=Pore Lining,	M=Matrix
Histic Epipedon (A2) Stitipped Matrix (86) Rad Parentl Material (TF2) Black Histic (A3) Losmy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Pydrogen Sulfide (A4) Losmy Mucky Mineral (F2) Other (explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Metrix (S4) Redox Depressions (F8)  Thick Dark Surface (A12) Redox Depressions (F8)  Thick Dark Surface (A12) Redox Depressions (F8)  Third Sold Present):  Type: None  Septimic (Nones) None  Surface (F7) None  Wetland Hydrology Indicators:  Trimary Indicators (Indimum of one required; Check all that apply) Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (Except MLRA High Water stained Leaves (B9) (Except MLRA Surface (A3) Saturation (A3) Dry-Geason Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (Valber on Aguitar Odor)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2)  Surface Sol Cracks (B6) Recent trans Reduction in Prowed Solis (C8) Saturation (A3) Saturation (A3) Sulface Odor (C1) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Presence of Reduced from (C4) Shallow Aquitard (D3)  Algal Mid or Crust (B4) Presence of Reduced from (C4) Shallow Aquitard (D3)  Algal Mid or Crust (B4) Presence of Reduced from (C4) Shallow Aquitard (D3)  Sparsety Vegetated Concave Surface (B8)  Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7)  Sparsety Vegetated Concave Surface (B8)  Field Observations:  urface 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?	ydric Soii	Indicators: (Appli	cable to	all LRRs, unles	s otherwise	e noted.)		Indica	ators for Problematic H	lydric Soils <sup>3</sup> :
Black Halic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F7)  Sandy Gleyed Matrix (S4)  Redox Depleted Dark Surface (F7)  Problematic  Restrictive Layer (if present):  Where I was a surface (F8)  Pepth (inches):  Remarks  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Hydric Soil Present? Yes		Histosol (A1)			Sa	indy Redox	(S5)		2 cm Muck (A	A10)
Black Halic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Oleyed Mafrix (S4)  Redox Dark Surface (F7)  Sandy Oleyed Mafrix (S4)  Redox Dark Surface (F7)  Sandy Oleyed Mafrix (S4)  Redox Dark Surface (F7)  Sandy Oleyed Mafrix (S4)  Redox Depleted Dark Surface (F7)  Sandy Oleyed Mafrix (S4)  Redox Dark Surface (F7)  Problematic  Restrictive Layer (if present):  Where I be permit on large rock. It appeared clear that rock/gravel continues below excavated depth.  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Secondary Indicators (2 or more required)  Surface Water (A1)  Water stained Leaves (B9) (Except MLRA  High Water Table (A2)  Saturation (A3)  Saturation (A3)  Saturation (A3)  Saturation (A3)  Saturation (A3)  Sediment Deposits (B1)  Aquatic Invertebrates (B13)  Dry-Sasson Water Table (C2)  Sediment Deposits (B3)  Oxidiced Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Thom Deposits (B3)  Recent Iron Reduction in Plowed Soils (C6)  Surface Water (A1)  Redex Surface (R1)  Redox Dark (R1)  Redox Dark (R2)  Redox Dark (R3)  Redox Dark (R4)  Redox Dark (R5)  Redex Indicators of hydrophytic vegetation and wetland hydrology must be present; Press No  X  Retriction (R5)  Redox Dark (R6)  Redox Dar		Histic Epipedon (A2)			Str	ripped Matr	ix (S6)		Red Parent N	Material (TF2)
Hydrogen Sulfide (A4) Depleted Bellow Dark Surface (A11) Depleted Matrix (F2) Pedeted Matrix (F3) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depth (Force) Redox					Lo	amy Mucky	/ Mineral (F1)	(except MLRA 1)	Very Shallow	Dark Surface (TF12)
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F5)  Thick Dark Surface (A12)  Redox Dark Surface (F7)  Problematic  Restrictive Layer (if present):  Whore  Report Depleted Dark Surface (F7)  Redox Depressions (F8)  Redox Depressions (F8)  Problematic  Restrictive Layer (if present):  Whore  Republic (inches):  None  Republic (inches):  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.  Refusal on large rock. It appeared clear that rock/grav			)				2 21			
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Problematic.  Restrictive Layer (if present):  Vipie: None    Pydric Soil Present? Yes No X    Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Pydric Soil Present? Yes No X   Depth (inches): Westland Hydrology Present? Yes No X   Pydric Soil Present? Yes No X   Depth (inches): Westland Hydrology Present? Yes No X				Δ11)						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8)  Redox D		•				•••				
Sandy Gleyed Matrix (S4) Redox Depressions (F8) problematic.  Restrictive Layer (if present):  Type: None   Hydric Soil Present? Yes No X  Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.    Hydric Soil Present? Yes No X   No X		•							<sup>3</sup> Indicators of hydrophytic v	regetation and wetlan
Restrictive Layer (if present):    Pype:   None							8 6		And the services are services as the services are services are services as the services are services	
Pepth (inches): Hydric Soil Present? Yes No X    Permarks   Refusal on large rock. It appeared clear that rock/gravel continues below excavated depth.		Sandy Gleyed Matrix	(54)		Ke	edox Depre	ssions (F8)		problema	atic.
Vetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Satt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Drainage Patterns (B10)  Phydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery  Drift Deposits (B3)  Augalization (C4)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Vater Table Present?  Ves No X  Depth (inches):  Vater Table Present?  Ves No X  Depth (inches):  Vater Table Present?  Ves No X  Depth (inches):  Vater Marks (B9) (Except MLRA  Water stained Leaves (B9)  (Except MLRA1, 2, 44, and 4B)  Orainage Patterns (B10)  Drainage Patterns (B10)  Saturation Visible on Aerial Imagery  Brain Remarks  Trimble Present?  Ves No X  Depth (inches):  Vetland Hydrology Present?  Ves No X  August Table Present?  Ves No X  Depth (inches):  Ves No X	epth (inche				avel continu	ues belov	w excavated		ent? Yes	No X
Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water stained Leaves (B9) (Except MLRA  High Water Table (A2)  Saturation (A3)  Satl Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Surface Soil Crust (B5)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Crust (B1)  Water Marks (D1)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes  No  X  Depth (inches):  Water Table Present? Yes  No  X  Depth (inches):  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Yes  No  X	Depth (inche Remarks Refusal on	large rock. It app			avel continu	ues belov	w excavated		ent? Yes	No X
Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B5) Recent Iron Reduction in Plowed Soits (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water Table Present? Yes No X Depth (inches): Water stained Leaves (B9) (Except MLRA Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (B7) Surface Water Present? Yes No X Depth (inches): Water Stained Leaves (B9) (Except MLRA, Pand 4B) (Except MLRA, Quitarion (B10) (Except MLRA, Pand 4B)  Drainage Patterns (B10) Dra	Depth (inche Remarks Refusal on	large rock. It app	eared cl		avel continu	ues belov	w excavated		ent? Yes	No X
High Water Table (A2)  Saturation (A3)  Sati Crust (B11)  Drainage Patterns (B10)  Moter Marks (B1)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery  Drift Deposits (B3)  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)  Field Observations:  Surface Water Present? Yes  No  X  Depth (inches):  Wetland Hydrology Present?  Yes  No  X  Depth (inches):  Yes  No  X	Depth (inches Remarks Refusal on	large rock. It app	eared cl		avel continu	ues belov	w excavated		sent? Yes	No X
Saturation (A3)  Water Marks (B1)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Drift Deposits (B3)  Acquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Surface Soil Cracks (B6)  Stunted or Stressed Plants (D1) (LRR A)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes  No X  Depth (inches):  Wetland Hydrology Present?  Yes  No X  Depth (inches):  Yes  No X	Depth (inche Remarks Refusal on HYDROLO	large rock. It app  DGY  ydrology Indicator	eared cl	lear that rock/gr		ues belov	w excavated			
Water Marks (B1)  Aquatic Invertebrates (B13)  Dry-Season Water Table (C2)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Saturation Visible on Aerial Imagery  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Field Observations:  Field 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):  Values capillary fringe)  Pry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Brown Aguatic Invertebrates (B13)  Oxidized Rhizospheres along Living Roots (C3)  Geomorphic Position (D2)  Saturation (C4)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Fac-Neutral Test (D5)  Fac-Neutral Test (D5)  Fac-Neutral Test (D5)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)  Wetland Hydrology Present?  Yes No X  Pepth (inches):  Yes No X  Pepth (inches):  Yes No X	Pepth (inche lemarks Refusal on HYDROL(	large rock. It app  OGY ydrology Indicators licators (minimum of	eared cl	lear that rock/gr	hat apply)			I depth.	Secondary Indicators	(2 or more required
Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Furface Water Present? Yes  No  X  Depth (inches):  Vater Table Present? Yes  No  X  Depth (inches):  Vater Table Present? Yes  No  X  Depth (inches):  Vegetation Present? Yes  No  X  Depth (inches):  Veg  No  X  Depth (inches):  Vegetation Present?  Yes  No  X  Depth (inches):  Vegetation Present?  Yes  No  X  Depth (inches):  Veg  No  X  Depth (inches):  Yes  No  X  Depth (inches):  Yes  No  X  Depth (inches):  Yes  No  X	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1)	eared cl	lear that rock/gr	hat apply) W	ater stained	d Leaves (B9)	I depth.	Secondary Indicators (	(2 or more required d Leaves (B9)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Furface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):  Vater Tabl	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2	eared cl	lear that rock/gr	hat apply) w. 1,	ater stained	d Leaves (B9)	I depth.	Secondary Indicators ( Water stained (Except ML)	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B)
Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Shallow Aquitard (D3)  Iron Deposits (B5)  Recent Iron Reduction in Plowed Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Tield Observations:  Urface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):	emarks lefusal on	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3)	eared cl	lear that rock/gr	hat apply)  Water apply  Note: The property of	ater stained 2, 4Å, and alt Crust (B1	d Leaves (B9) 4B)	I depth.	Secondary Indicators ( Water stained (Except MLI Drainage Pat	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) terns (B10)
Iron Deposits (B5)  Surface Soil Cracks (B6)  Sunface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Spersely Vegetated Concave Surface (B8)  Frost-Heave Hummocks (D7)  Spersely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):  Surface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):  Surface Water Present? Yes No X Depth (inches):	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	eared cl	lear that rock/gr	hat apply)  Wata	ater stained 2, 4Å, and alt Crust (B1 juatic Invert	d Leaves (B9) 4B) 11) tebrates (B13)	depth.	Secondary Indicators ( Water stained (Except MLI Drainage Pat	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) tterns (B10) Water Table (C2)
Iron Deposits (B5)  Surface Soil Cracks (B6)  Sunface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Spersely Vegetated Concave Surface (B8)  Frost-Heave Hummocks (D7)  Spersely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):  Surface Water Present? Yes No X Depth (inches):  Vater Table Present? Yes No X Depth (inches):  Surface Water Present? Yes No X Depth (inches):	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	eared cl	lear that rock/gr	hat apply)  Watana	ater stained 2, 4A, and alt Crust (B1 juatic Invert drogen Sul	d Leaves (B9) 4B) 11) tebrates (B13) Ifide Odor (C1	I depth.	Secondary Indicators  Water stained (Except MLI  Drainage Pat  Dry-Season V  Saturation Vi	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) terns (B10) Water Table (C2) sible on Aerial Imager
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No X Depth (inches): Vater Table Present? Yes No X Depth (inches): Staturation Present Presen	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	eared cl s: f one rec	lear that rock/gr	hat apply)  Wata apply  1,  Sa  Aq  Hy  Ox	ater stained 2, 4A, and alt Crust (Br justic Invert odrogen Sul kidized Rhiz	d Leaves (B9) 4B) 11) tebrates (B13) Ifide Odor (C1) cospheres alor	Except MLRA	Secondary Indicators ( Water stainer (Except MLI Drainage Pat Dry-Season Vi Saturation Vi Geomorphic	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) dterns (B10) Water Table (C2) sible on Aerial Imager
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):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Yes No X Depth (inches):  Yes No X	Pepth (inche lemarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	eared cl s: f one rec	lear that rock/gr	hat apply)  Wata 1, Sa Aq Hy Ox	ater stained 2, 4Å, and alt Crust (Br juatic Inverti drogen Sul kidized Rhiz esence of F	d Leaves (B9) 4B) 11) tebrates (B13) lifide Odor (C1) cospheres alor Reduced Iron (	(Except MLRA ) ng Living Roots (C3) C4)	Secondary Indicators ( Water stained (Except MLI Drainage Pat Dry-Season ( Saturation Vi Geomorphic ( Shallow Aqui	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) tterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3)
Field Observations:  Surface Water Present? Yes No X Depth (inches):  Water Table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Model of the present o	Pepth (inche Remarks Refusal on HYDROL(	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	eared cl s: f one rec	lear that rock/gr	hat apply)  Wa 1, Sa Aq Hy Ox	ater stained 2, 4Å, and alt Crust (B1 juatic Inver- drogen Sul kidized Rhiz esence of F ecent Iron F	d Leaves (B9) 4B) 11) tebrates (B13) lfide Odor (C1) cospheres alor Reduced Iron (	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators ( Water stained (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui	(2 or more required Leaves (B9) RA1, 2, 4A, and 4B) Items (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5)
Surface Water Present? Yes No X Depth (inches):  Water Table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Yes No X Depth (inches):  Yes No X  Includes capillary fringe)	Depth (inche Remarks Refusal on HYDROLO	DGY ydrology Indicators licators (minimum of 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 (6)	eared cl s: f one rec	lear that rock/gr	hat apply)  Wata  1,  Satisfied Aquilibrium Aquilibriu	ater stained 2, 4Å, and alt Crust (B1 quatic Invert drogen Suit didized Rhiz esence of F ecent Iron R unted or Sta	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators ( Water stainer (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral T Raised Ant M	(2 or more required the Leaves (B9) RA1, 2, 4A, and 4B) Iterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5) Hounds (D6) (LRR A)
Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present?  Saturation Present? Yes No X Depth (inches): Yes No X  includes capillary fringe)	Depth (inche Remarks Refusal on HYDROLO	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	eared cl s: f one rec	lear that rock/gr quired; check all t	hat apply)  Wata  1,  Satisfied Aquilibrium Aquilibriu	ater stained 2, 4Å, and alt Crust (B1 quatic Invert drogen Suit didized Rhiz esence of F ecent Iron R unted or Sta	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators ( Water stainer (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral T Raised Ant M	(2 or more required the Leaves (B9) RA1, 2, 4A, and 4B) Iterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5) Hounds (D6) (LRR A)
Saturation Present? Yes No X Depth (inches): Yes No X includes capillary fringe)	Depth (inche Remarks Refusal on HYDROLC Wetland Hy Primary Ind	DGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C	eared cl s: f one rec	lear that rock/gr quired; check all t	hat apply)  Wata  1,  Satisfied Aquilibrium Aquilibriu	ater stained 2, 4Å, and alt Crust (B1 quatic Invert drogen Suit didized Rhiz esence of F ecent Iron R unted or Sta	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators ( Water stainer (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral T Raised Ant M	(2 or more required the Leaves (B9) RA1, 2, 4A, and 4B) Iterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5) Hounds (D6) (LRR A)
includes capillary fringe)	Depth (inche Remarks Refusal on HYDROL( Wetland Hy Primary Ind	large rock. It app  OGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Corvations:	eared cl s: f one rec	lear that rock/gr quired; check all t guired; check all t	hat apply)  Wi 1, Sa Aq Hy Ox Pri Re Str	ater stained 2, 4A, and alt Crust (Briguetic Inverti- odrogen Sul- kidized Rhiz esence of F ecent Iron R unted or Stainer (Explain	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators ( Water stainer (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral T Raised Ant M	(2 or more required the Leaves (B9) RA1, 2, 4A, and 4B) Iterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5) Hounds (D6) (LRR A)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Depth (inche Remarks: Refusal on HYDROL() Wetland Hy Primary Ind	large rock. It app  OGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Corvations: er Present? Yes	eared cl s: f one rec	lear that rock/gr quired; check all t agery (B7) Surface (B8)	hat apply)  Wata  1,  Sa  Aq  Hy  Ox  Pri  Re  Str  Ot	ater stained 2, 4A, and att Crust (B1 juatic Invert rdrogen Sul kidized Rhiz esence of F ecent Iron R unted or Sta her (Explain	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	depth.  (Except MLRA  ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators ( Water stained (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral 1 Raised Ant M Frost-Heave	(2 or more required the Leaves (B9) RA1, 2, 4A, and 4B) Iterns (B10) Water Table (C2) sible on Aerial Imager Position (D2) tard (D3) Fest (D5) Hounds (D6) (LRR A)
	Remarks: Refusal on HYDROLO Wetland Hy Primary Ind Field Obse Surface Water Water Table I Saturation Pr	large rock. It app  OGY ydrology Indicators licators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Conventions:  or Present? Yes Present? Yes esent? Yes	eared cl s: f one rec	lear that rock/gr quired; check all t agery (B7) Surface (B8)	hat apply)  Wi 1, Sa Aq Hy Ox Pro Re Sto Ot  Depth (in-	ater stained  2, 4Å, and  alt Crust (B*)  quatic Invert  rdrogen Sul  rdrogen Sul	d Leaves (B9) 4B) 11) tebrates (B13) flide Odor (C1) cospheres alor Reduced Iron ( Reduction in Pl ressed Plants	depth.  (Except MLRA  ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators ( Water stained (Except MLI Drainage Pat Dry-Season V Saturation Vi Geomorphic Shallow Aqui Fac-Neutral T Raised Ant M Frost-Heave	(2 or more required d Leaves (B9) RA1, 2, 4A, and 4B) Items (B10) Water Table (C2) sible on Aerial Imagel Position (D2) tard (D3) Test (D5) Iounds (D6) (LRR A) Hummocks (D7)

Moist at surface only.

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Project/Site: LSI Property	City/County	Gresham/Multnomah Sampling Date 4/22/2011
Applicant/Owner: Port of Portland		State: OR Sampling Point: 5
Investigator(s): FS/SE	Section, To	ownship, Range: Township 1N/Range 3 East/Section 34CD/TL 100
Landform (hillslope, terrace, etc.)		Local relief (concave, convex, none): Slope Slope (%): <5
Subregion (LRR) A	Lat	45°31'18.69" N Long: 122°25'29.78" W Datum
Soil Map Unit Name:	Latourell loam	NWI Classification: Upland
Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes X No (if no, explain in Remarks)
Are vegetation Soil or Hyd	drology significantly dist	sturbed? Are "Normal Circumstances" present? (Y/N)
Are vegetation Soil or Hyd	drologynaturally problem	ematic? If needed, explain any answers in Remarks.)
CULTURA DV OF FINDINGS AU-	-h -14	and the second for a state of Assessment Sections and Sections and
		ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes		is Sampled Area within
Hydric Soil Present? Yes	X No	a Wetland? Yes X No
Wetland Hydrology Present? Yes	X No	
Remarks: SE portion of Wetland C		
or portion of victimita		
VEGETATION - Use scientific na	mes of plants.	
	absolute Dominant	Indicator Dominance Test worksheet:
	% cover Species?	Status
Tree Stratum (plot size:)		Number of Dominant Species
1		That are OBL, FACW, or FAC (A)
2		Tatal Newton / Devices
3		Total Number of Dominant  Species Across All Strata: 1 (B)
-	0 = Total Cover	Species Across All Strata: 1 (B)
0 1 10 10 10 10		
Sapling/Shrub Stratum (plot size:	-	Percent of Dominant Species
2		That are OBL, FACW, or FAC: (A/B)
3		Prevalence Index Worksheet:
4		Total % Cover of Multiply by:
5		OBL Species x 1 = 0
	0 = Total Cover	FACW species x 2 = 0
16.00.0		FAC Species x 3 = 0
Herb Stratum (plot size: 5 )  1 Agrostis stolonifera	0.5 V	FACU Species x 4 = 0
1 Agrostis stolonitera 2 Phalaris arundinacea	85 X	FAC UPL Species x 5 = 0  FACW Column Totals 0 (A) 0 (B)
3 Vicia cracca	5	FACW Column Totals 0 (A) 0 (B)
4 Alopecurus pratensis	3	FACW Prevalence Index =B/A = #DIV/0I
5 Trifolium repens	2	FAC
6 Rumex crispus	tr	FAC Hydrophytic Vegetation Indicators:
7		1- Rapid Test for Hydrophytic Vegetation
8		X 2- Dominance Test is >50%
	100 = Total Cover	3-Prevalence Index is ≤ 3.01
Wash Visa Status (plot size)	V	4-Morphological Adaptations (provide supporting
Woody Vine Stratum (plot size:	-'	data in Remarks or on a separate sheet)  5- Wetland Non-Vascular Plants <sup>1</sup>
2		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	0 = Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless
		disturbed or problematic.
9/ Baro Ground in Harb Stratum		Hydrophytic Yes Y No.
% Bare Ground in Herb Stratum		Vegetation Yes X No Present?
Remarks:		1

			PHS# _	4	796			Sampling Point: 5
		the depth	needed to documer			firm the abser	nce of indicators.)	
Depth (Inches)	Color (moist)	%	Color (maist)	Redo %	Type Type	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 3/2	90	10YR 3/4	C	M		Sandy Loam	medium to coarse, 10% gravel
6-9	10YR 3/2	10	1011(0/4				Sandy Loam	mediani to coarse, 10 /8 graver
6-9	10YR 3/3	40					Sandy Loam	
6-9	10YR 3/4	40					Sandy Loam	10% gravel
9-12	10YR 4/4	95					Sandy Loam	10 % gravei
9-12	2.5Y 4/2	5					Sandy Loan	color on ped faces
3-1	2.51 4/2		***		-			Soloi on ped taces
1						10.		2
			educed Matrix, CS=0				India	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. ators for Problematic Hydric Soils <sup>3</sup> :
		icable to	all LRRs, unless	otherw			maic	
	Histosol (A1)		3		Sandy Redo			2 cm Muck (A10)
	Histic Epipedon (A2)		9		Stripped Mat	to the state of th	/	Red Parent Material (TF2)
	Black Hislic (A3)		24				(except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4					ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark		A11)	X	Depleted Ma			
	Thick Dark Surface (		3		Redox Dark			<sup>3</sup> Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera		2		Redox Depre	rk Surface (F7)		hydrology must be present, unless disturbed or problematic
	Sandy Gleyed Matrix				Redux Depie	25510115 (F0)	7	problematic
Restrictive	Layer (if present)	):					1	
							1	
Туре:		N	lone		_			
Type: Depth (inches	S)	N	lone		Prob		Hydric Soil Pres	sent? Yes X No
	5)	N	lone	******			Hydric Soil Pres	sent? YesX No
Depth (inches	s)	N	lone		P. 1		Hydric Soil Pres	sent? Yes X No
Depth (inches	s):	N	lone	7114			Hydric Soil Pres	sent? Yes X No
Depth (inches		N	lone				Hydric Soil Pres	sent? Yes X No
Depth (inches Remarks  HYDROLO	ogy .		lone				Hydric Soil Pres	sent? Yes X No
Depth (inches Remarks:  HYDROLO Wetland Hy	IGY drology Indicato	rs:					Hydric Soll Pres	
Depth (inches Remarks  HYDROLO Wetland Hy Primary Indi	OGY drology Indicator cators (minimum c	rs:	quired; check all th	at apply		d Leaves (89)		Secondary Indicators (2 or more required)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	OGY drology Indicator cators (minimum o Surface Water (A1)	rs: of one rec		at apply			Hydric Soil Pres	
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	OGY  drology Indicator cators (minimum of Surface Water (A1) High Water Table (A	rs: of one rec		at apply	Water stained	i 4B)		Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A Saturation (A3)	rs: of one rec		at apply	Water stained 1, 2, 4A, and Salt Crust (B	14B)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)
Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	of one rec		at apply	Water stained 1, 2, 4A, and Salt Crust (B Aquatic Inver	1 <b>4B)</b> 111) rtebrates (B13)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (I	of one rec			Water stained 1, 2, 4A, and Salt Crust (B Aquatic Invertigation	14B) 111) rtebrates (B13) ulfide Odor (C1)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery (
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (I) Drift Deposits (B3)	of one rec		at apply	Water stained 1, 2, 4A, and Salt Crust (B Aquatic Invertigation Hydrogen Su Oxidized Rhi	d 4B)  interpretes (B13)  ulfide Odor (C1)  izospheres alor	(Except MLRA ) ng Living Roots (C3)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery (XX)  Geomorphic Position (D2)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	of one rec			Water stained 1, 2, 4A, and Salt Crust (B Aquatic Inventydrogen Su Oxidized Rhi Presence of	d 4B) interprates (B13) interprates (B13) interprates (B13) interprates (B13) interpretation (B13)	(Except MLRA ) ng Living Roots (C3) C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5)	rs: of one red 2) B2)			Water stained 1, 2, 4A, and Salt Crust (B Aquatic Invented Hydrogen Su Oxidized Rhi Presence of Recent Iron I	d 4B) interprates (B13) interprates (B13) interprates (B13) interprates (B13) interpretation (B13)	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery (XX)  Geomorphic Position (D2)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soit Cracks	Prs: Dof one reconstance (2) (B2) (B4) (B6)	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B) Aquatic Invertigation Hydrogen Sur Oxidized Rhi Presence of Recent Iron I Stunted or Si	d 4B) Intebrates (B13) Ilfide Odor (C1) Izospheres alor Reduced Iron ( Reduction in Pl	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soit Cracks Inundation Visible or	of one reconstant (B6)  A Aerial Image	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B) Aquatic Invertigation Hydrogen Sur Oxidized Rhi Presence of Recent Iron I Stunted or Si	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soit Cracks Inundation Visible or Sparsely Vegetated	of one reconstant (B6)  A Aerial Image	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B) Aquatic Invertigation Hydrogen Sur Oxidized Rhi Presence of Recent Iron I Stunted or Si	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inches Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicators cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soit Cracks Inundation Visible or Sparsely Vegetated of Vations:	of one reconstant (B6)  A Aerial Image	quired; check all th	X	Water stained 1, 2, 4A, and Salt Crust (B) Aquatic Invertigation Hydrogen Sur Oxidized Rhi Presence of Recent Iron If Stunted or Si Other (Explain	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
HYDROLO Wetland Hy Primary Indi  Field Obser Surface Water	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soit Cracks Inundation Visible or Sparsely Vegetated vations: Present? Yes	of one reconstant (B6)  A Aerial Image	quired; check all th agery (B7) Surface (B8)	X	Water stainer 1, 2, 4A, and Salt Crust (B Aquatic Invert Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or Si Other (Explain	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
HYDROLO Wetland Hy Primary Indi  Field Obser Surface Water Water Table F	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soit Cracks Inundation Visible or Sparsely Vegetated vations: Present? Yes	of one reconstant (B6)  A Aerial Image	quired; check all the agery (B7) Surface (B8)  No X  No X	X Depth Depth	Water stainer 1, 2, 4A, and Salt Crust (B Aquatic Invert Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or Si Other (Explain	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indi  Field Obser Surface Water Water Table P Saturation Pre	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegetated of vations: Present? Yes resent? Yes resent? Yes	of one reconstant (B6)  A Aerial Image	quired; check all th agery (B7) Surface (B8)	X Depth Depth	Water stainer 1, 2, 4A, and Salt Crust (B Aquatic Invert Hydrogen Su Oxidized Rhi Presence of Recent Iron F Stunted or Si Other (Explain	tebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indi  Field Obser Surface Water Water Table P Saturation Pre (includes capillar)	drology Indicator cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soit Cracks Inundation Visible or Sparsely Vegetated vations: Present? Yes	of one reconstant (B6)  A Aerial Ima Concave S	quired; check all the agery (B7) Surface (B8)  No X  No X	X Depth Depth	Water stained 1, 2, 4A, and Salt Crust (B) Aquatic Invertigation Hydrogen Survivation Oxidized Rhit Presence of Recent Iron If Stunted or Si Other (Explain In (inches): In (inches): In (inches): In (inches): In (inches):	tate)  attention (B13)  attention (B13)  attention (C1)  atten	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)  Wetland Hydr	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  X Saturation Visible on Aerial Imagery ( X Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Remarks

4796

Project/Site: LSI Pro	operty	City/County:	Gresh	am/Multnomah Sampling Date 4/22/2011
Applicant/Owner Port of Por	tland			State: OR Sampling Point: 6
Investigator(s):	S/SE	Section, To	wnship, Range:	Township 1N/Range 3 East/Section 34CD/TL 100
Landform (hillslope, terrace, etc.)	Terrace		Local relief (cor	ncave, convex, none): Slope Slope (%): <5
Subregion (LRR):	A	Lat:	45°31'18.6	69" N Long: 122°25'29.78" W Datum:
Soil Map Unit Name:		•		NWI Classification: Upland
Are climatic/hydrologic conditions on			Yes	
Are vegetation Soil	or Hydrology	significantly dist	urbed?	Are "Normal Circumstances" present? (Y/N)
Are vegetation Soil	-	•		
			mpling poin	t locations, transects, important features, etc.
Hydrophytic Vegetation Present?			Is Sampled Ar	ea within
Hydric Soil Present?	Yes No		a Wetian	
Wetland Hydrology Present?	Yes No	X		
Remarks:			<u> </u>	
Small upland 'island' in Wetla	and C			
VEGETATION - Use scient			1 1 1	
	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum (plot size:	)	Opecies:	Otatus	Number of Dominant Species
1	·			That are OBL, FACW, or FAC 2 (A)
2				
3				Total Number of Dominant
4				Species Across All Strata: 3 (B)
	0	= Tolal Cover		
Sapling/Shrub Stratum (plot size:	)			Percent of Dominant Species
1				That are OBL, FACW, or FAC: 67% (A/B)
2				
3				Prevalence Index Worksheet:
4	<del></del>			Total % Cover of Multiply by:
5		= Total Cover		OBL Species
		- Total Cover		FAC Species
Herb Stratum (plot size 5	)			FACU Species x 4 = 0
1 Agrostis stolonifera	20	X	FAC	UPL Species x 5 = 0
2 Plantago lanceolata	10		FAC	Column Totals 0 (A) 0 (B)
3 Taraxacum officinale			FACU	
4 Trifolium repens			FAC	Prevalence Index =B/A = #DIV/0I
5 Trifolium pratense 6 Hypochaeris radicata	7		FACU	Hudrophytic Vocatetion Indicators
6 Hypochaeris radicata 7 Daucus carota	<u>20</u>	X	UPL	Hydrophytic Vegetation Indicators:
8 Festuca rubra	30	X	FAC	1- Rapid Test for Hydrophytic Vegetation  2- Dominance Test is >50%
	100	= Total Cover	170	3-Prevalence Index is ≤ 3.0¹
				4-Morphological Adaptations¹ (provide supporting
Woody Vine Stratum (plot size:	)			data in Remarks or on a separate sheet)
1				5- Wetland Non-Vascular Plants <sup>1</sup>
2				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	0	= Total Cover		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic
% Bare Ground in Herb Stratum				Vegetation Yes X No
Pomode:				Present?
Remarks:				

OIL			PHS#	4796			Sampling Point: 6
rofile Descrip	otion: (Describe to t	he depth	needed to docume	nt the Indicator o	r confirm the abse	ence of Indicators.)	
Depth	Matrix			Redox Featu		•	
(Inches)	Color (moist)	_%	Color (moist)	% Тур	e <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 3/3	100				Sandy Loam	with >30% gravel
10-14	10YR 2/2	99	5YR 3/3	<1 C	M	Sandy Loam	with >30% gravel
14+							refusal
	entration, D=Depletion		<del></del>				<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
lydric Soll I	ndicators: (Appli	cable to	all LRRs, unles	s otherwise no	ted.)	Indic	ators for Problematic Hydric Soils <sup>3</sup> :
h	Histosol (A1)			Sandy	Redox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)			Strippe	d Matrix (S6)		Red Parent Material (TF2)
E	Black Histic (A3)			Loamy	Mucky Mineral (F1)	(except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	)		Loamy	Gleyed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark		A11)	Deplete	d Matrix (F3)		
	Thick Dark Surface (A	0.00000000	S. S. A.		Dark Surface (F6)		
					d Dark Surface (F7	7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Mineral					7	hydrology must be present, unless disturbed or
`	Sandy Gleyed Matrix	(54)		Redox	Depressions (F8)		problematic
ype: epth (inches emarks:			one	0% rock. Mixe	in materials, r	Hydric Soil Pres	sent? Yes No X
ype: Depth (inches emarks:	4"- compacted gr			0% rock. Mixe	d in materials, r		sent? Yes NoX
ype: Depth (inches Remarks: Refusal at 1	4"- compacted g			0% rock. Mixe	d in materials, r		sent? Yes NoX
ype: Depth (inches Demarks: Refusal at 1	4"- compacted g	ravel/cob		0% rock. Mixe	d in materials, r		sent? Yes NoX
ype: lepth (inches emarks: lefusal at 1	4"- compacted g	ravel/cob	oble mix with >6		d in materials, r		Secondary Indicators (2 or more required)
ype: Depth (inches Demarks: Defusal at 1 DEMARKS: DEFUSAL AT 1 DEFUSAL	4"- compacted gr GY drology Indicator	ravel/cob	oble mix with >6	hat apply)	d in materials, r	not native.	
ype: lepth (inches emarks: lefusal at 1 lYDROLO lettand Hyd rimary India	4"- compacted gr GY drology Indicator cators (minimum o	ravel/cob	oble mix with >6	hat apply) Waters		not native.	Secondary Indicators (2 or more required)
ype: epth (inchesemarks: efusal at 1  YDROLO /etland Hydrimary India	4"- compacted grader of the compacted grader of the compacted grader of the compacted grader (A1)	ravel/cob	oble mix with >6	hat apply)  Water s	tained Leaves (B9)	not native.	Secondary Indicators (2 or more required) Water stained Leaves (B9)
epth (inchesemarks: efusal at 1 EYDROLO /etland Hydrimary Indicates	4"- compacted grader of the compacted grader grader of the compacted grader grader of the compacted grader of the compacted grader grader grader of th	ravel/cob	oble mix with >6	hat apply) Water s 1, 2, 44	tained Leaves (B9)	not native.	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)
ype: epth (inches emarks: efusal at 1  YDROLO Jetland Hydrimary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	ravel/cot	oble mix with >6	hat apply)  Water s 1, 2, 44  Salt Cn Aquatic	tained Leaves (B9) , and 4B) ust (B11)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)
ype: epth (inches emarks: efusal at 1  IYDROLO Vetland Hyd rimary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	ravel/cot	oble mix with >6	hat apply)  Water s  1, 2, 4A  Salt Cn  Aquatic	tained Leaves (B9) , and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
epth (inchesemarks: efusal at 1  YDROLO  /etland Hydrimary Indicates	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	ravel/cobrs: s: f one req 2)	oble mix with >6	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C- d Rhizospheres alc	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2)
ype: epth (inches emarks: efusal at 1  YDROLO /etland Hydrimary India	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B	ravel/cobrs: s: f one req 2)	oble mix with >6	hat apply)  Water s 1, 2, 44  Salt Cri Aquatic Hydrog Oxidize Presen	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (Ci d Rhizospheres ald ce of Reduced Iron	(C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)
ype: epth (inches emarks: efusal at 1  YDROLO /etland Hydrimary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5)	ravel/cob rs: if one req (2)	oble mix with >6	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C- d Rhizospheres alc	(Except MLRA  (Except MLRA  (S) (1) (I) (C4) (C4) (C4) (C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2)
ype: epth (inches emarks: efusal at 1  YDROLO /etland Hy rimary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks (B3)	ravel/cobrs: s: f one req 2) 32) 4)	oble mix with >6	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Present  Recent  Stunted	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C: d Rhizospheres alo ce of Reduced Iron Iron Reduction in F	(Except MLRA  (Except MLRA  (S)  (I)  (I)  (I)  (I)  (I)  (I)  (I)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
ype: epth (inchesemarks: efusal at 1  YDROLO letland Hydrimary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	oble mix with >6 uired; check all ti	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Present  Recent  Stunted	tained Leaves (B9) , and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C' d Rhizospheres ald ce of Reduced Iron Iron Reduction in F	(Except MLRA  (Except MLRA  (S)  (I)  (I)  (I)  (I)  (I)  (I)  (I)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
ype: epth (inches emarks: efusal at 1  YDROLO /etland Hydrimary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Visible (Inu	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	oble mix with >6 uired; check all ti	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Present  Recent  Stunted	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C: d Rhizospheres alo ce of Reduced Iron Iron Reduction in F	(Except MLRA  (Except MLRA  (S)  (I)  (I)  (I)  (I)  (I)  (I)  (I)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
ype: epth (inches emarks: efusal at 1  IYDROLO Vetland Hyd rimary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Invations:	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted  Other (	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C- d Rhizospheres alo ce of Reduced Iron Iron Reduction in F or Stressed Plants Explain in Remarks	(Except MLRA  (Except MLRA  (S)  (I)  (I)  (I)  (I)  (I)  (I)  (I)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicated Control of State of S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundations) Vations: Present? Yes	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Present  Recent  Stunted	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C- d Rhizospheres alo ce of Reduced Iron Iron Reduction in F or Stressed Plants Explain in Remarks	not native.  (Except MLRA  (C4)  Plowed Soils (C6) (C1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indicated Control of State of S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundations) Vations: Present? Yes	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted  Other (	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13) en Sulfide Odor (Cid Rhizospheres aloce of Reduced Iron Iron Reduction in Filor Stressed Plants explain in Remarks	not native.  (Except MLRA  (C4)  Plowed Soils (C6) (C1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Field Obser  Surface Water Table Presentation Presentatio	GY drology Indicator cators (minimum of 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 (Inundation Visible on	ravel/cobrs: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted  Other (i	stained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C- d Rhizospheres alc ce of Reduced Iron Iron Reduction in F or Stressed Plants Explain in Remarks	not native.  (Except MLRA  (C4)  Plowed Soils (C6) (C1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Field Obser Surface Water Water Table Periodudes capillar	GY drology Indicator cators (minimum of 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 (Inundation Visible on	ravel/cobres: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the second se	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted  Other (i	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C' d Rhizospheres alo ce of Reduced Iron Iron Reduction in F or Stressed Plants explain in Remarks	(Except MLRA  (Except MLRA  (C4)  (C4)  (Output (C4)  (C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Field Obser Nater Table Princludes capillar	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundations: Present? Yes resent? Yes sent? Yes y (ringe)	ravel/cobres: s: f one req 2) 32) 4) (B6) Aerial Ima	uired; check all the second se	hat apply)  Water s 1, 2, 44  Salt Cn  Aquatic  Hydrog  Oxidize  Presen  Recent  Stunted  Other (i	tained Leaves (B9) and 4B) ust (B11) Invertebrates (B13 en Sulfide Odor (C' d Rhizospheres alo ce of Reduced Iron Iron Reduction in F or Stressed Plants explain in Remarks	(Except MLRA  (Except MLRA  (C4)  (C4)  (Output (C4)  (C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

Project/Site: LSI Property		City/County:	Gresh	am/Multnomah	Samplin	g Date:	4/22	2/2011
Applicant/Owner Port of Portland				State	OR	Sam	pling Point:	7
Investigator(s) FS/SE	0.001	Section, To	wnship, Range:	Township	1N/Range 3 E	East/Sectio	n 34CD/TL	. 100
Landform (hillslope, terrace, etc.:)	Terrace		Local relief (cor	ncave, convex, none):	Slo	ое	Slope (%)	<5
Subregion (LRR):		Lat:	45°31'18.0	69" N Long	122°25'29	9.78" W	Datum:	
Soil Map Unit Name:	Lato	urell loam			lassification:		Upland	
Are climatic/hydrologic conditions on the site			Yes		) (if			
			urbed?					
Are vegetation Soil or Hyd		•			A 8 G	(1716)		
Are vegetation on Try		·	matic: il necucu,	, explain any answers in r	(Ciliains.)			
SUMMARY OF FINDINGS - Attac	ch site map	showing sa	ampling poin	t locations, transe	cts, importa	ant feature	es, etc.	
Hydrophytic Vegetation Present? Yes								
Hydric Soil Present? Yes			Is Sampled Ar		s X	No		
Wetland Hydrology Present? Yes			a wellan	iu i	-			
			<u></u>					
Remarks: Swale in NE end of Wetland C								
VEGETATION - Use scientific na	mes of plan	nts.		······································				
	absolute	Dominant	Indicator	Dominance Test wo	orksheet:			7
	% cover	Species?	Status					
Tree Stratum (plot size )				Number of Dominant Sp	ecies			
1				That are OBL, FACW, o	r FAC:	2		(A)
2								
3				Total Number of Domina	ant			
4				Species Across All Strat	a:	2		(B)
	0	= Total Cover						
Sapling/Shrub Stratum (plot size:	)			Percent of Dominant Sp	ecies			
1				That are OBL, FACW, o	or FAC:	100%	ó	(A/B)
2								
3				Prevalence Index W	orksheet:			
4				Total % Cover of	Mu	ultiply by:		
5				OBL Species		x 1 =	0	
	0	= Total Cover		FACW species		× 2 = _	0	
Herb Stratum (plot size: 5 )				FAC Species		x3= x4=	0	
1 Agrostis stolonifera	50	X	FAC	FACU Species UPL Species		x 5 =	0	
2 Festuca rubra	20	X	FAC	Column Totals	0 (A)	-		В)
3 Alopecurus pratensis	10		FACW	- Committee		_		
4 Leontodon leysseri	5	-	UPL	Prevalence Index	=B/A =	#DIV/	10	
5 Mont/a linearis	2		UPL					
6 Trifolium repens	10		FAC	Hydrophytic Vegeta	tion Indicato	rs:		
7 Plantago lanceolata	3		FAC		1- Rapid Test		c Vegetation	F
8				Х	2- Dominance	Test is >50%		
	100	= Total Cover			3-Prevalence I			
					4-Morphologic	al Adaptations	s1 (provide su	
Woody Vine Stratum (plot size:	.)				data in Remarl			
1	)				5- Wetland No	n-Vascular Pl	ants <sup>1</sup>	
Woody Vine Stratum (plot size:  1 2	)				5- Wetland No Problematic Hy	n-Vascular Pla drophytic Ve	ants <sup>1</sup> getation <sup>1</sup> (Ex	plain)
Woody Vine Stratum (plot size:  1 2	0	= Total Cover		<sup>1</sup> Indicators of hydric soil	5- Wetland No Problematic Hy and wetland hyd	n-Vascular Pla drophytic Ve	ants <sup>1</sup> getation <sup>1</sup> (Ex	plain)
1	0	= Total Cover		<sup>1</sup> Indicators of hydric soil disturbed or problematic Hydrophytic	5- Wetland No Problematic Hy and wetland hyd	n-Vascular Pla drophytic Ve	ants <sup>1</sup> getation <sup>1</sup> (Ex	plain)
1	0	= Total Cover		disturbed or problematic	5- Wetland No Problematic Hy and wetland hyd	n-Vascular Pli ydrophytic Vei drology must b	ants <sup>1</sup> getation <sup>1</sup> (Ex	plain) nless

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Sampling Point:

7

Profile Descri	ption: (Describe to t	he depth	needed to docume			ofirm the absen	ce of indicators.)				
Depth	Matrix				x Features	Loc <sup>2</sup>	_				
(Inches)	Color (maist)		Color (moist)		Type'	LOC	Texture	Remarks			
0-12	10YR 3/2	90	7.5YR 3/4	10		<del></del>	Silt Loam	>40% gravel component, motts are m-f			
12+								refusal			
1Type: C=Con	centration, D=Depletion	no RM=R	educed Matrix CS=	Covered o	r Coated Sar	nd Grains		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.			
	Indicators: (Appl						Indic	ators for Problematic Hydric Soils <sup>3</sup> :			
	200	icable to	an Errico, ames	3 01110111	Sandy Redo		maio				
	Histosol (A1)					- Ma - Ma - A - Mari Ma		2 cm Muck (A10)			
	Histic Epipedon (A2)				Stripped Ma			Red Parent Material (TF2)			
	Black Histic (A3)					ky Mineral (F1) (	except MLRA 1)	Very Shallow Dark Surface (TF12)			
	Hydrogen Sulfide (A4	)				ed Matrix (F2)	*	Other (explain in Remarks)			
	Depleted Below Dark	Surface (/	A11)		Depleted Ma	atrix (F3)					
	Thick Dark Surface (A	A12)		X	Redox Dark	Surface (F6)		State of the state			
	Sandy Mucky Minera	I (S1)			Depleted Da	ark Surface (F7)		Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or			
	Sandy Gleyed Matrix	(S4)			Redox Depr	essions (F8)		problematic			
Restrictive	Layer (if present)	:									
			one								
Type:		- 19	Olle		_		Hydric Soll Pres	cont2 Von V No			
Depth (inche	5).						nyunc son Fres	sent? Yes X No No			
Remarks:	12" due to compa	otod ara	vols/sobbles /un	to 7" di	amotor)						
Relusarat	iz due to compa	cleu gra	reis/coppies (up	rto r ui	ameter).						
HYDROLO	NCV										
	drology Indicator	·6:									
1											
Primary Indi	cators (minimum o	f one req	uired; check all the	nat apply				Secondary Indicators (2 or more required)			
	Surface Water (A1)			-	1, 2, 4A, an	ed Leaves (B9) (i	Except MLRA	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)			
	High Water Table (A	2)									
X	Saturation (A3)			-	Salt Crust (E			X Drainage Pattems (B10)			
	Water Marks (B1)					ertebrates (B13)		Dry-Season Water Table (C2)			
·	Sediment Deposits (I	32)				ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)			
	Drift Deposits (B3)						g Living Roots (C3)	X Geomorphic Position (D2)			
	Algal Mat or Crust (B	4)			•	Reduced Iron (0		Shallow Aquitard (D3)			
	Iron Deposits (B5)				•	Reduction in Plo	*	Fac-Neutral Test (D5)			
	Surface Soil Cracks	(B6)			Stunted or S	Stressed Plants (	D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)			
	Inundation Visible on	Aerial Ima	gery (B7)		Other (Expla	ain in Remarks)		Frost-Heave Hummocks (D7)			
	Sparsely Vegetated (	Concave S	urface (B8)								
Field Obser	rvations:										
Surface Wate	r Present? Yes		No X	Depth	(inches):		ŀ				
Water Table F	Present? Yes		No X	Depth	(inches):		Wetland Hyd	rology Present?			
Saturation Pre		X	No		(inches)	0		Yes X No			
(includes capilla					,						
Describe Reco	orded Data (stream ga	suge, mon	itoring well, aerial pl	notos, prev	ious inspecti	ons), if available:	•				
None		1900	•								
Remarks			······································								
M. Niberten Kin	water table is pro	esent- so	oils poorly drain	ed due t	o compact	ed gravels, st	ay saturated in u	pper part.			

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Project/Site:	LSI P	roperty		City/County	Gresh	nam/Multnomah	Sampling Date	4/2	2/2011
Applicant/Owner:	Port of Po	rtland				State	OR	Sampling Point	8
Investigator(s):		FS/SE		Section, To	wnship, Range	Township 1	N/Range 3 East/S	ection 34CD/T	L 100
Landform (hillslope, t	errace, etc.:)		Terrace	•	Local relief (cor	ncave, convex, none):	Slope	Slope (%)	
Subregion (LRR):		A	+	Lat:	45°31'18.	69" N Long:	122°25'29.78"		
Soil Map Unit Name			Lato	urell loam	*		assification		
Are climatic/hydrolog					Yes			plain in Remarks)	
Are vegetation			ydrology	ACCESS SHOW CONTRACTOR		Are "Normal Circumstan			
Are vegetation		-				, explain any answers in R			2 -7 -
		-		, , , , , , , , , , , , , , , , , , , ,		, explain any anerrors mile	omamo.,		
SUMMARY OF	FINDINGS	– Atta	ach site map	showing sa	mpling poir	nt locations, transec	ts, important fe	atures, etc.	
Hydrophytic Vegetati	on Present?	Yes _	X No		is Sampled Ar	roa wilthin			
Hydric Soil Present?		Yes _	No	X	a Wetlar	nd? Yes		No X	
Wetland Hydrology P	resent?	Yes _	No	X					
Remarks					. <u>.                                   </u>				
Small upland isla	and in Wetla	and C							
VEGETATION -	Use scier	tific n			In director	In-ulassa Task	-1		
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test wo	rksneet:		
Tree Stratum (plot	size	)	78 00701	Оросноз:	Otatus	Number of Dominant Spe	ecies		
1						That are OBL, FACW, or		2	(A)
2									
3						Total Number of Domina	nt		
4						Species Across All Strate	<u> </u>	2	(B)
			0	= Total Cover					
Sapling/Shrub Stratu	m (plot size		_)			Percent of Dominant Spe	ecies		
1						That are OBL, FACW, or	FAC:	100%	(A/B)
2					•				
3		·	<del></del>			Prevalence Index W		•	
4						Total % Cover of	Multiply b	<del></del>	
]			0	= Total Cover		OBL Species FACW species	x 1 = x 2 =	-	•
				- Total Cover		FAC Species	x3=	-	•:
	t size:	5 )				FACU Species	x 4 =	0	
1 Agrostis stole			20	X	FAC	UPL Species	x 5 =	0	•
2 Festuca rubra			40	X	FAC	Column Totals	0 (A)	0	(B)
3 Trifollum prat			5		FACU			1170 1170	
5 Plantago land			10		FAC	Prevalence Index =	:B/A =	#DIV/01	-
6 Anthoxanthui		,	5		FACU	Hydrophytic Vegetal	tion Indicators:		
7 Vicia sp.					UPL	injuroprijate vegetat	1- Rapid Test for Hyd	rophytic Vegetatic	on
8 Cerastium vu	lgatum		2		FACU	X	2- Dominance Test is		
			99	= Total Cover			3-Prevalence Index is	s ≤ 3.0¹	
							4-Morphological Adap	otations1 (provide	supporting
Woody Vine Stratum	(plot size:		_)				data in Remarks or or		t)
1	<del></del>						5- Wetland Non-Vaso		·
2				a Tatal Causa		Indicators of hydric soil a	Problematic Hydroph		
				= Total Cover		disturbed or problematic	and wedand hydrology	must be present,	unicəs
						Hydrophytic		41-14	
% Bare Ground in He	erb Stratum					Vegetation Present?	Yes X	No	
Remarks:						I. ICOCIET			
Other vegetation	: Geranium	sp., tra	ce. Weakly h	ydrophytic.					

				IS#	4796				Sampling Po	JIIIL	8
(2)	ption: (Describe to to Matrix	he depth	needed to	docume	nt the Indicato		irm the abse	nce of indicators.)			
Depth (Inches)	Color (moist)	%	Color (r	moist)		ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	emarks	
0-10	10YR 3/3							Gravelly Loam	>30% rock		
10+									refusalcobbles		
	<del></del>										
Type: C=Con	centration, D=Depletion	on PM=P	educed Ma	triv CS=	Covered or Coa	ed Sand	Grains		<sup>2</sup> Location: PL=Pore Lini	na M=Matrix	
	Indicators: (Appli						Grans.	Indica	ators for Problematic		ls <sup>3</sup> .
	Histosol (A1)	ioubio to		, uo		y Redox	(S5)		2 cm Muc	•	
	Histic Epipedon (A2)					oed Matri				nt Material (TF2	21
	Black Histic (A3)						-	(except MLRA 1)		low Dark Surfa	
	Hydrogen Sulfide (A4	N.					d Matrix (F2)	(except meror 1)		olain in Remark	
	Depleted Below Dark		Δ11)			eted Matr			Other (ext	John III INCHIAIN	(5)
	Thick Dark Surface (A		Ally				Surface (F6)				
	Sandy Mucky Mineral						k Surface (F7)		3Indicators of hydrophyt	ic vegetation ar	nd wetland
	Sandy Gleyed Matrix						ssions (F8)		hydrology must be pres	sent, unless dis ematic.	sturbed or
estrictive	Layer (if present):										
	-ayor ( procont).	•						1			
Tuno:		N.	lone					1			
		N	lone					Hydric Soil Pres	ent? Ves	No	Y
Type: Depth (inches	s):	N	lone				···	Hydric Soil Pres	sent? Yes	No	x
Depth (inches				vel fill				Hydric Soil Pres	sent? Yes	No	X
Depth (inches	s):			vel fill.				Hydric Soil Pres	sent? Yes	No	<u>x</u>
Depth (inches				vel fill.				Hydric Soil Pres	sent? Yes	No	X
Depth (inches Remarks: Refusal at 1	10" due to cobbles			vel fill.				Hydric Soil Pres	sent? Yes	No	X
Depth (inches Remarks: Refusal at 1	10" due to cobbles	s, comp		vel fill.				Hydric Soil Pres	sent? Yes	No	x
Depth (inches Remarks: Refusal at 1 HYDROLO Vetland Hy	10" due to cobbles	s, comp	acted gra		hat apply)			Hydric Soil Pres	Secondary Indicator		
Depth (inchest Remarks: Refusal at 1 HYDROLO Vetland Hy Primary Indi	I0" due to cobbles  OGY  drology Indicator	s, comp	acted gra			r stained	Leaves (B9)	Hydric Soil Pres	Secondary Indicator		required)
Depth (inchest Remarks: Refusal at 1 HYDROLO Vetland Hy Primary Indi	OGY redrology Indicator cators (minimum o	s, composes:	acted gra		Wate	er stained 4A, and			Secondary Indicator	s (2 or more	required)
Depth (inchested in the control of t	OGY drology Indicator cators (minimum o Surface Water (A1)	s, composes:	acted gra		Wate 1, 2,		4B)		Secondary Indicator Water star	rs (2 or more	required) 9) and 4B)
Depth (inches Remarks: Refusal at 1 HYDROLO Vetland Hy Primary Indi	OGY  drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2)	s, composes:	acted gra		Wate 1, 2,	4A, and Crust (B1	4B)	(Except MLRA	Secondary Indicator Water stai (Except N	rs (2 or more ned Leaves (Bo	required) 9) and 4B)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY rdrology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	s, composite series:	acted gra		Wate 1, 2, Salt Aqua	4A, and Crust (B1 tic Invert	<b>4B)</b>	(Except MLRA	Secondary Indicator Water stai (Except in Drainage in	rs (2 or more ned Leaves (B MLRA1, 2, 4A, Pattems (B10)	required) 9) and 4B)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY Ordrology Indicator cators (minimum or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	s, composite series:	acted gra		Wate 1, 2, Salt Aqua Hydr	4A, and Crust (B1 itic Invert ogen Sul	4B) 1) ebrates (B13) fide Odor (C1	(Except MLRA	Secondary Indicator Water stai (Except in Drainage in Ory-Season Saturation	rs (2 or more ned Leaves (86 MLRA1, 2, 4A, Pattems (B10) on Water Table	required) 9) and 4B) (C2) ial Imagery (C
Depth (inches Remarks: Refusal at 1 HYDROLO Vetland Hy Primary Indi	OGY  rdrology Indicator cators (minimum or Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	s, composite s:  If one reconstant is a second seco	acted gra		Wate 1, 2, Salt Aqua Hydr Oxid	4A, and Crust (B1 tic Invert ogen Sult zed Rhiz	4B) 1) ebrates (B13) fide Odor (C1	(Except MLRA ) ) ng Living Roots (C3)	Secondary Indicator Water stai (Except M Drainage I Dry-Seaso Saturation Geomorph	rs (2 or more ned Leaves (Br MLRA1, 2, 4A, Patterns (B10) on Water Table Visible on Aeri	required) 9) and 4B) (C2) ial Imagery (C
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY Idrology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	s, composite s:  If one reconstant is a second seco	acted gra		Wate 1, 2, Salt Aqua Hydr Oxid	4A, and Crust (B1 tic Invertingen Sulfized Rhizence of R	4B)  11) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron (	(Except MLRA ) ) ng Living Roots (C3)	Secondary Indicator Water stai (Except M Drainage i Dry-Seaso Saturation Geomorph Shallow A	rs (2 or more ned Leaves (Br MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aero nic Position (D2	required) 9) and 4B) (C2) ial Imagery (C
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	DGY rdrology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	s, composite series:  of one reconstruction of the series	acted gra		Wate 1, 2, Salt Aqua Hydr Oxid Pres Rece	4A, and Crust (B1 tic Invertingen Sul- ized Rhiz ence of Reserved Rhiz	4B) i1) ebrates (B13) fide Odor (C1 cospheres alor Reduced fron (	(Except MLRA ) ) ng Living Roots (C3) (C4)	Secondary Indicator Water stai (Except in Drainage in Dry-Season Saturation Geomorph Shallow A	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Patterns (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3)	required) 9) and 4B) (C2) ial Imagery (C2)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY  cators (minimum or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	s, composes: s: f one rec 2) 32) 4)	acted gra		Wate 1, 2, Salt Aque Hydr Oxid Pres Rece Stun	4A, and Crust (B1 tic Invert ogen Suli zed Rhiz ence of R int Iron R	4B) i1) ebrates (B13) fide Odor (C1 cospheres alor Reduced fron (	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except Magnetic Secondary Indicator) Drainage Magnetic Secondary Indicator Geomorph Shallow A Fac-Neutro Raised An	rs (2 or more ned Leaves (Br MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)
Pepth (inchester Remarks: Refusal at 1	OGY  Idrology Indicator cators (minimum of 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 (	s; compositions of one record (B6) Aerial Images	acted gra	eck all th	Wate 1, 2, Salt Aque Hydr Oxid Pres Rece Stun	4A, and Crust (B1 tic Invert ogen Suli zed Rhiz ence of R int Iron R	4B) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron ( teduction in Pi ressed Plants	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except Magnetic Secondary Indicator) Drainage Magnetic Secondary Indicator Geomorph Shallow A Fac-Neutro Raised An	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5) It Mounds (D6)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY  Ordrology Indicator  cators (minimum or  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 C	s; compositions of one record (B6) Aerial Images	acted gra	eck all th	Wate 1, 2, Salt Aque Hydr Oxid Pres Rece Stun	4A, and Crust (B1 tic Invert ogen Suli zed Rhiz ence of R int Iron R	4B) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron ( teduction in Pi ressed Plants	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except Magnetic Secondary Indicator) Drainage Magnetic Secondary Indicator Geomorph Shallow A Fac-Neutro Raised An	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5) It Mounds (D6)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	OGY Idrology Indicator Cators (minimum of 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 Covations:	s; compositions of one record (B6) Aerial Images	acted gra	eck all th	Wate 1, 2, Salt Aque Hydr Oxid Pres Rece Stun	Crust (B1 Crust (B1 tic Invertingen Sultander Sultander Sultander Sultander Sultander Sultander Sultander State (Explair	4B) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron ( teduction in Pi ressed Plants	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except Magnetic Secondary Indicator Drainage Magnetic Secondary Indicator Geomorph Shallow A Fac-Neutro Raised An	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5) It Mounds (D6)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi	DGY redrology Indicator cators (minimum or 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 Corvations:	s; compositions of one record (B6) Aerial Images	acted gra quired; che agery (B7) Surface (B8)	eck all th	Wate 1, 2, Salt Aqua Hydr Oxid Pres Rece Stun Othe	Crust (B1 crust	4B) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron ( teduction in Pi ressed Plants	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except Magnetic Secondary Indicator Drainage Magnetic Secondary Indicator Geomorph Shallow A Fac-Neutro Raised An	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5) It Mounds (D6)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)
Depth (inches Remarks: Refusal at 1 HYDROLO Wetland Hy Primary Indi  Field Obser Surface Water	OGY  Ordrology Indicator  cators (minimum or  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 Covations:  The Present? Yes  Present? Yes	s; compositions of one record (B6) Aerial Images	acted graduired; che	eck all th	Wate 1, 2, Salt Aque Hydr Oxid Pres Rece Stun Othe	Crust (B1 crust	4B) ebrates (B13) fide Odor (C1 cospheres alor Reduced Iron ( teduction in Pi ressed Plants	(Except MLRA ) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicator Water stai (Except & Drainage I Dry-Seaso Saturation Geomorph Shallow A Fac-Neutr Raised An Frost-Hear	rs (2 or more ned Leaves (Bi MLRA1, 2, 4A, Pattems (B10) on Water Table Visible on Aeri nic Position (D2 quitard (D3) al Test (D5) It Mounds (D6)	required) 9) and 4B) (C2) ial Imagery (C2) (LRR A)

Despite lack of pit depth, assumed to be dry at depth based on elevation above nearby ponded areas- perched conditions in area due to

compacted fill.

PHS#

4796

Project/Site: LSI Property	/	City/County	Gresh	am/Multnomah	Sampling Date:	4/2:	2/2011
Applicant/Owner: Port of Portland				State	OR	Sampling Point	9
Investigator(s) FS/SE		Section, To	wnship, Range:	Township 1N	I/Range 3 East/Se	ection 34CD/TI	400
Landform (hillslope, terrace, etc.:)			Local relief (cor	cave, convex, none):	Slope	Slope (%):	<5
Subregion (LRR):		Lat:	45°31'18.0	69" N Long: _	122°25'29.78" V	V Datum:	
Soil Map Unit Name:	Lato	urell loam		NWI Clas	ssification:	Upland	
Are climatic/hydrologic conditions on the sit	te typical for this t	ime of year?	Yes	X No	(if no, exp	lain in Remarks)	
Are vegetation Soil or H	Hydrology	significantly dist	urbed?	Are "Normal Circumstance	es" present? (Y/N)	Y	
Are vegetation Soil or H	Hydrology	naturally proble	matic? If needed	explain any answers in Rer	marks.)		
						PLANTES AND SOUTH CONTRACTOR	
SUMMARY OF FINDINGS - Att			impling poin	t locations, transect	s, important fe	atures, etc.	
Hydrophytic Vegetation Present? Yes			Is Sampled Ar	ea within		22	
Hydric Soil Present? Yes			a Wetlan		<u>X</u>	No	
Wetland Hydrology Present? Yes	X No						
Remarks: In Wetland B							
In Wedand B							
VEGETATION - Use scientific r	names of plan	nts.					
VEGETATION - 030 SOLOTANIO.	absolute	Dominant	Indicator	Dominance Test work	ksheet:		
	% cover	Species?	Status				
Tree Stratum (plot size	)			Number of Dominant Spec	cies		
1				That are OBL, FACW, or F	AC:	2	(A)
2							
3				Total Number of Dominant		•	(D)
4	0	= Total Cover		Species Across All Strata:		2	(B)
		- Total Cover					
Sapling/Shrub Stratum (plot size	_)			Percent of Dominant Spec		4000/	(A (D)
1				That are OBL, FACW, or I	FAC:	100%	(A/B)
3				Prevalence Index Wo	rksheet:		
4				Total % Cover of	Multiply by	<i>/</i> :	
5				OBL Species	x 1 =		
	0	= Total Cover		FACW species	x 2 =	0	
				FAC Species	x 3 =	0	
Herb Stratum (plot size 5  1 Juncus effusus	.)		EACIM	FACU Species	×4=	0	
Agrostis stolonifera	40	x	FAC	UPL Species Column Totals	0 (A)	0	(B)
3 Epilobium watsonii	5		FACW	_ Coldilli Totals	(A)		(6)
4 Leontodon nudicaulis	5		UPL	Prevalence Index =B	3/A = #	DIV/0!	
5 Trifolium repens	50	X	FAC	The control of the Co			
6 Rumex crispus	1		FAC	Hydrophytic Vegetati	on Indicators:		
7				11	- Rapid Test for Hydr	ophytic Vegetatio	n
8					2- Dominance Test is		
	106	= Total Cover			-Prevalence Index is -Morphological Adap		upporting
Woody Vine Stratum (plot size:	)				lata in Remarks or on		
1	<del>-</del> '			1	i- Wetland Non-Vasco		,
2					roblematic Hydrophy		xplain)
	0	= Total Cover		<sup>1</sup> Indicators of hydric soil an			
				disturbed or problematic.			
% Bare Ground in Herb Stratum				Hydrophytic Vegetation	Yes X	No	
, sono crosma in rioro dilatam				Present?	.30		
Remarks:	nity: Carov ca	Scirpus mice	rocarnue Salis	sandlings			

4796

Sampling Point:

9

15.	tion: (Describe to	the depth i	needed to docum			firm the absen	ce of Indicators.)		
Depth	Matrix (Color (moiet)		Color (==:-1)		Type <sup>1</sup>	Loc <sup>2</sup>	T		Demort -
(Inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>			Texture		Remarks
0-4	2.5Y 3/1	85	10YR 3/4	15	<u>C</u>	M	Silty Clay Loam	coarse	4.1.
4-8	10YR 3/2	20					Silt Loam	mixed ma	
4-8	10YR 3/3	80					Silt Loam	mixed ma	itrix
8-12	10YR 4/4	98					Silt Loam		
8-12	2.5Y 3/2	2						on ped fa	ces
							-		
<sup>1</sup> Type: C=Conc	entration, D=Deplet	on, RM=Re	duced Matrix, CS	Covered or	Coated San	d Grains.		<sup>2</sup> Location: PL	=Pore Lining, M=Matrix.
Hydric Soll I	ndicators: (App	icable to	all LRRs, unles	s otherw	ise noted.)		Indica	ators for Pro	blematic Hydric Soils <sup>3</sup> :
H	listosol (A1)				Sandy Redo	x (S5)			2 cm Muck (A10)
1 F	listic Epipedon (A2)				Stripped Mat	trix (S6)			Red Parent Material (TF2)
B	lack Histic (A3)				Loamy Muck	y Mineral (F1) (	except MLRA 1)		Very Shallow Dark Surface (TF12)
H	lydrogen Sulfide (A	<b>\$</b> )			Loamy Gleye	ed Matrix (F2)			Other (explain in Remarks)
	epleted Below Dark	Surface (A	(11)		Depleted Ma	trix (F3)			
T	hick Dark Surface (	A12)		X	Redox Dark	Surface (F6)			
	andy Mucky Minera	al (S1)			Depleted Da	rk Surface (F7)			hydrophytic vegetation and wetland
s	andy Gleyed Matrix	(S4)			Redox Depre	essions (F8)		nydrotogy m	ust be present, unless disturbed or problematic
Postrictive I	ayer (if present						I		
	ayer (ii present								
Type:		N	one		-			10 V	V N-
Depth (inches)							Hydric Soil Pres	ent? Yes	X No
Remarks:									
HYDROLO	2V					·····			
	Irology Indicato	rs:							
=				u 4 1)				0	Indiana.
	ators (minimum	or one req	uirea; check all			d Laguage (BO) /	Event MI DA		Indicators (2 or more required)
	Surface Water (A1)	<b>6</b> \			1, 2, 4A, and	d Leaves (B9) (i i 4B)	EXCEPT MLKA		Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)
	ligh Water Table (A	2)							
	Saturation (A3) Vater Marks (B1)				Salt Crust (B	rtebrates (B13)			Drainage Patterns (B10) Dry-Season Water Table (C2)
	Sediment Deposits (	B21			•	ulfide Odor (C1)			Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	02)				Control of the Contro	g Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (E	34)				Reduced Iron (0	_		Shallow Aquitard (D3)
	ron Deposits (B5)	,				Reduction in Plo			Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)				tressed Plants (			Raised Ant Mounds (D6) (LRR A)
	nundation Visible or	Aerial Ima	gery (B7)			in in Remarks)			Frost-Heave Hummocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)						
Field Observ	ratione:								
			No. Y	Death	(inches):				
Surface Water			No X		(inches):		Motond Hyde	rologu Droo	
Water Table Pr			No X		(inches):	0.6	Wetland Hydi		202
Saturation Pres (includes capillary		<u>x</u>	No	. Deptn	(inches):	0-6		Yes	X No
	ded Data (stream g	auge, moni	oring well, aerial r	hotos, previ	ous inspectio	ons), if available	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
None		-9-1		, p 1					
Remarks:	······								
	a zone from su	rface dow	n 6 inches.						

4796

Project/Site: LSI Property	City/County:	Gresham/Mu	ltnomah	Sampling Date:	4/2	2/2011
Applicant/Owner Port of Portland			State	OR	Sampling Point:	10
Investigator(s): FS/SE	Section, To	ownship, Range:	Township 1	N/Range 3 East/Se	ection 34CD/TI	400
Landform (hillslope, terrace, etc.:)		Local relief (concave, co	onvex, none):	Slope	Slope (%)	<5
Subregion (LRR):	Lat:	45°31'18.69" N	Long:	122°25'29.78" W	V Datum:	
Soil Map Unit Name:				ssification		
Are climatic/hydrologic conditions on the site		Yes X	_	(if no, expl		
Are vegetation Soil or H		***	-			
Are vegetation Soil or H					_	
Are vegetation Soit Of A	yurologyriaturally proble	matic r it needed, explain	any answers in re	anains.)		
SUMMARY OF FINDINGS - Atta	ach site map showing s	ampling point loca	tions, transec	ts, important fea	atures, etc.	
Hydrophytic Vegetation Present? Yes	X No					
	No X	Is Sampled Area withi	n Yes		No X	
Wetland Hydrology Present? Yes	No X	a Wedanu!	-			
Remarks:		1				
Adjacent to Wetland B (NW end)		s				
VEGETATION - Use scientific n	ames of plants.					<del></del>
	absolute Dominant	Indicator Domi	nance Test wor	ksheet:		
	% cover Species?	Status				
Tree Stratum (plot size:		Numbe	er of Dominant Spe	cies		
1		That a	re OBL, FACW, or	FAC:	2	(A)
2		*				
3		Total N	lumber of Dominan	it		
4		Specie	s Across All Strata		3	(B)
	0 = Total Cover					
Sapling/Shrub Stratum (plot size:	_)	Percer	nt of Dominant Spec	cies		
1		That a	re OBL, FACW, or	FAC:	67%	(A/B)
2						
3		Preva	lence Index Wo	orksheet:		
4			6 Cover of	Multiply by		
5			OBL Species	x 1 =		
	= Total Cover	1	ACW species AC Species	x 2 = x 3 =	0	
Herb Stratum (plot size: 5	)		ACU Species	x4=	0	
1 Agrostis stolonifera	, 40 X		JPL Species	x 5 =	0	
2 Hypochaeris radicata	20 X		olumn Totals	<b>0</b> (A)	0	(B)
3 Plantago lanceolata	10	FAC	-			
4 Anthemis cotula	3	FACU F	Prevalence Index =I	B/A = #	DIV/0!	
5 Trifolium repens	5	FAC				
6 Cerastium vulgatum	2	FACU Hydro	ophytic Vegetat	ion Indicators:		
7 Festuca rubra	X	FAC		1- Rapid Test for Hydr	ophytic Vegetatio	n
8				2- Dominance Test is		
	100 = Total Cover			3-Prevalence Index is		
Woody Vine Stratum (plot size:	1			4-Morphological Adapt data in Remarks or on		
Woody Vine Stratum (plot size:	-'	= 1		5- Wetland Non-Vascu	a to the same of t	)
2				Problematic Hydrophy		xolain)
	0 = Total Cover	1Indica		nd wetland hydrology	=	
	1000 0000		ed or problematic.	.,		reconstitution
			phytic			
% Bare Ground in Herb Stratum	· · · · · · · · · · · · · · · · · · ·	Veget Prese	tation	Yes X	No	· · · · · · · · · · · · · · · · · · ·
Remarks:		Triese	iii i			
Weakly faculative vegetation.						

			PHS#	4796			Sampling Point:	10
		he depth r	needed to docume	ent the indicator or cor	firm the abser	nce of indicators.)		
Depth	Matrix Calar (malet)	0/	O-les (moiet)	Redox Features  % Type <sup>1</sup>	Loc <sup>2</sup>	Tanding	Damarka	
(Inches)	Color (moist)	%	Color (moist)	% Type'	LUC	Texture	Remarks	·
0-6	10YR 3/2	80	40VD 0/0			Silt Loam	jumbled matrix with >30%	
0-6	10YR 3/1	10	10YR 3/3	C	M	Silt Loam	jumbled matrix with >30%	% gravel
6+							refusal	
								<del></del>
								<del></del>
		· ·						
				Covered or Coated San			<sup>2</sup> Location: PL=Pore Lining, M=M	
		icable to	all LRRs, unles	s otherwise noted.	)	Indica	ators for Problematic Hydric	c Soils³:
	Histosol (A1)			Sandy Redo			2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped Ma			Red Parent Materia	
	Black Histic (A3)					(except MLRA 1)	Very Shallow Dark	
	Hydrogen Sulfide (A4				ed Matrix (F2)		Other (explain in R	emarks)
	Depleted Below Dark		(11)	Depleted Ma				
	Thick Dark Surface (A				Surface (F6)		<sup>3</sup> Indicators of hydrophytic vegeta	tion and wetland
	Sandy Mucky Mineral				ark Surface (F7)	1	hydrology must be present, unle	
	Sandy Gleyed Matrix	(S4)		Redox Depr	essions (F8)		problematic.	
Restrictive	Layer (if present):	:						
Type:		No	one					
Depth (inches	s):					Hydric Soll Pres	sent? Yes N	lo <u>X</u>
Remarks:	<del></del>							
	6" due to buried la	ayer of se	ediment cloth a	nd cobble. Area dis	sturbed in re	cent years- sedim	nent cloth found buried mos	st of this
section.								
HYDROLO								
Wetland Hy	drology Indicator							
	icators (minimum o	s:						
Primary Indi	outors (minimus)		uired; check all t	hat apply)			Secondary Indicators (2 or a	more required)
	Surface Water (A1)		uired; check all t		d Leaves (B9)	(Except MLRA	Secondary Indicators (2 or pure Water stained Leav	
		of one requ	uired; check all t			(Except MLRA		res (B9)
	Surface Water (A1)	of one requ	uired; check all t	Water staine	d 4B)	(Except MLRA	Water stained Leav	ves (B9) 2, 4A, and 4B)
	Surface Water (A1) High Water Table (A2	of one requ	uired; check all t	Water staine 1, 2, 4A, and Salt Crust (E	d 4B)		Water stained Leav (Except MLRA1, 2	res (B9) 2, <b>4A</b> , and <b>4B</b> ) (B10)
	Surface Water (A1) High Water Table (A2) Saturation (A3)	of one requ	uired; check all t	Water staine 1, 2, 4A, and Salt Crust (E	d 4B) 311)	)	Water stained Leav (Except MLRA1, 2  Drainage Patterns (  Dry-Season Water	res (B9) 2, <b>4A</b> , and <b>4B</b> ) (B10) Table (C2)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	of one requ	uired; check all t	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si	d 4B) 311) ertebrates (B13) ulfide Odor (C1	)	Water stained Leav (Except MLRA1, 2  Drainage Patterns (  Dry-Season Water	res (B9) 2, <b>4A</b> , and <b>4B)</b> (B10) Table (C2) on Aerial Imagery (C9
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	of one requipely	uired; check all t	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St	d 4B) 311) ertebrates (B13) ulfide Odor (C1	) ) ng Living Roots (C3)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of	res (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) on (D2)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	of one requipely	uired; check all t	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen St Oxidized Rh Presence of Recent Iron	d 4B) 311) ertebrates (B13) ulfide Odor (C1 iizospheres alor Reduced Iron ( Reduction in Pl	) ) ng Living Roots (C3) (C4) lowed Soils (C6)	Water stained Leav (Except MLRA1, 2 Drainage Patterns of the control of the contr	res (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) on (D2)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	of one requipment of one requi		Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on (D2) (D3) (D5) (C(D6) (LRR A)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on	of one requipment of one requi	gery (B7)	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1 iizospheres alor Reduced Iron ( Reduction in Pl	) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns of Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (Experimental Company)	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on (D2) (D3) (D5) (C(D6) (LRR A)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	of one requipment of one requi	gery (B7)	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on (D2) (D3) (D5) (C) (D6) (LRR A)
	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C	of one requipment of one requi	gery (B7)	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) (D2) (D3) (D5) (C) (D6) (LRR A)
	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 Corvations:	of one requipment of one requi	gery (B7)	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9 on (D2) 03) 05) 6 (D6) (LRR A)
Field Obser	Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C rvations: r Present? Yes	of one requipment of one requi	gery (B7) urface (B8)	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) (D2) (D3) (D5) (C) (D6) (LRR A)
Field Obser Surface Water Water Table P Saturation Pre	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 Corvations: Ir Present? Yes Present? Yes esent? Yes	of one requipment of one requi	gery (B7) urface (B8) No X	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (D Fac-Neutral Test (D Raised Ant Mounds Frost-Heave Humm	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on (D2) (D3) (D5) (C) (D6) (LRR A)
Field Obser Surface Water Water Table P	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 Corvations: Ir Present? Yes Present? Yes esent? Yes	of one requipment of one requi	gery (B7) urface (B8) No X No X	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	d 4B) 311) ertebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in Pl stressed Plants	) ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leav (Except MLRA1, 2 Drainage Patterns of Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (District Fac-Neutral Test (District Raised Ant Mounds) Frost-Heave Humm	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) 03) 05) 6 (D6) (LRR A) nocks (D7)
Field Obser Surface Water Water Table P Saturation Pre (includes capillar Describe Reco	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 Corvations: r Present? Yes	of one required (2) (32) (4) (86) Aerial Image Concave Su	gery (B7) urface (B8) No X No X	Water staine 1, 2, 4A, and Salt Crust (E Aquatic trive Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain	d 4B) 311) artebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in PI atressed Plants ain in Remarks)	y ong Living Roots (C3) (C4) (C4) (D1) (LRR A) Wetland Hydronic (C6)	Water stained Leav (Except MLRA1, 2 Drainage Patterns of Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (District Fac-Neutral Test (District Raised Ant Mounds) Frost-Heave Humm	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) (D2) (D3) (D5) (C6) (LRR A) (C7)
Field Obser Surface Water Water Table P Saturation Pre (includes capillar	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 Corvations: r Present? Yes	of one required (2) (32) (4) (86) Aerial Image Concave Su	gery (B7) urface (B8) No X No X	Water stains 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain) Depth (inches): Depth (inches):	d 4B) 311) artebrates (B13) ulfide Odor (C1 aizospheres alor Reduced Iron ( Reduction in PI atressed Plants ain in Remarks)	y ong Living Roots (C3) (C4) (C4) (D1) (LRR A) Wetland Hydronic (C6)	Water stained Leav (Except MLRA1, 2 Drainage Patterns of Dry-Season Water Saturation Visible of Geomorphic Position Shallow Aquitard (District Fac-Neutral Test (District Raised Ant Mounds) Frost-Heave Humm	ves (B9) 2, 4A, and 4B) (B10) Table (C2) on Aerial Imagery (C9) (D3) (D5) (C6) (LRR A) (D6) (LRR A)

No hydrologic activity noted, despite nearby ponding- water table 'perched' in vicinity.

4796

Project/Site: LSI Property	City/County:	Gresham/Multnomah	Sampling Date	4/22/2011
Applicant/Owner Port of Portland		Sta	ite: OR S	Sampling Point: 11
Investigator(s): FS/SE	Section, To	rnship, Range: Township	o 1N/Range 3 East/Sec	tion 34CD/TL 400
Landform (hillslope, terrace, etc.)		Local relief (concave, convex, none)	Slope	Slope (%) <5
Subregion (LRR):	Lat	45°31'18.69" N Lor	ng: 122°25'29.78" W	Datum:
Soil Map Unit Name:	Latourell loam	NŴI	Classification:	
Are climatic/hydrologic conditions on the site		Yes X	No (if no, explai	n in Remarks)
Are vegetation Soil or Hyd	drology significantly dist	rbed? Are "Normal Circums	tances" present? (Y/N)	Υ
Are vegetation Soil or Hyd	drology naturally proble	alic? If needed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Atta		npling point locations, trans	ects, important feat	ures, etc.
Hydrophytic Vegetation Present? Yes		Is Sampled Area within		
	X No	a Wetland?	es X N	0
Wetland Hydrology Present? Yes	X No			
Remarks:				
Wetland A				
VEOFTATION HE STICKED		<u> </u>		
VEGETATION - Use scientific na	absolute Dominant	Indicator Dominance Test v	vorksheet:	
	% cover Species?	Status	FORGIOCE,	
Tree Stratum (plot size: )		Number of Dominant S	Species	
1		That are OBL, FACW,	or FAC	1 (A)
2				
3		Total Number of Domi		
4		Species Across All Str	rata:	<u>1</u> (B)
	0 = Total Cover			
Sapling/Shrub Stratum (plot size	_)	Percent of Dominant S		
		That are OBL, FACW,	or FAC 10	00% (A/B)
2		Prevalence Index	Workshoot:	
1 4		Total % Cover of	Multiply by:	
5		OBL Species	x 1 =	0
	0 = Total Cover	FACW species	x 2 =	0
		FAC Species	x 3 =	0
Herb Stratum (plot size: 5 )  1 Agrostis stolonifera		FACU Species	x 4 =	
Leontodon nudicaulis	95 X	UPL Species  UPL Column Totals	× 5 =	0 (B)
3 Plantago lanceolata	1	FAC Column Totals	(A)	(B)
4 Trifolium repens	1	FAC Prevalence Inde	x =B/A = #D	IV/01
5				-
6		Hydrophytic Vege	tation Indicators:	
7			1- Rapid Test for Hydrop	hytic Vegetation
8		X	2- Dominance Test is >5	
	99 = Total Cover		3-Prevalence Index is ≤ 3	
Woody Vine Stratum (plot size	)		data in Remarks or on a	ions <sup>1</sup> (provide supporting separate sheet)
1	•0.		5- Wetland Non-Vascula	
2			Problematic Hydrophytic	Vegetation <sup>1</sup> (Explain)
	0 = Total Cover		oil and wetland hydrology mu	ust be present, unless
		disturbed or problemat	lic.	
% Bare Ground in Herb Stratum		Hydrophytic Vegetation	Yes X	No
1		Present?		
Remarks:				

2			PHS #	479		<u> </u>		Sampling Point: 11
Profile Descri Depih	ption: (Describe to Matrix	the depth	needed to docume		ator or con Features	firm the abse	nce of Indicators.)	
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/2	70	10YR 3/4	10	С	M	Sandy Loam	coarse
0-4		20						gravel
4-12	10YR 3/4	40					Sandy Loam	mixed matrix
4-12	10YR 3/2	20						mixed matrix
4-12		40						gravel
	centration, D=Depletion						India	<sup>2</sup> Location: PL=Pore Lining, M=Matrix. ators for Problematic Hydric Solls <sup>3</sup> :
	Histosol (A1)	ilcable to	an LNNs, unles		andy Redox		maica	2 cm Muck (A10)
	Histic Epipedon (A2)				tripped Mati			Red Parent Material (TF2)
	Black Histic (A3)	,					(except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A	4)				d Matrix (F2)	(oncope major i)	Other (explain in Remarks)
	Depleted Below Dark		A11)		epleted Mat	7.00		Other (explain in remarks)
	Thick Dark Surface (		,		• 10	Surface (F6)		
	Sandy Mucky Minera					k Surface (F7)	i	<sup>3</sup> Indicators of hydrophylic vegetation and wetland
	Sandy Gleyed Matrix				edox Depre		•	hydrology must be present, unless disturbed or problematic.
Restrictive	Layer (if present)	):					T	
Type:			one					
Depth (inche	s):		one .				Hydric Soil Pres	sent? Yes X No
Type: Depth (inche: Remarks:			one .				Hydric Soil Pres	sent? Yes X No
Depth (inchese Remarks:	OGY	N	one				Hydric Soil Pres	sent? Yes X No
Depth (inchese Remarks:		N	one				Hydric Soil Pres	sent? YesX No
Depth (inchese Remarks:  HYDROLO  Wetland Hy  Primary Indi	OGY drology Indicato cators (minimum o	N rs:						Secondary Indicators (2 or more required)
Depth (inchese Remarks:  HYDROLO  Wetland Hy  Primary Indi	OGY drology Indicato	rs: of one req		w	/ater stained 2, 4A, and	, ,	Hydric Soil Pres	
Depth (inchese Remarks:  HYDROLO  Wetland Hy  Primary Indi	DGY drology Indicato cators (minimum o Surface Water (A1)	rs: of one req		W		4B)		Secondary Indicators (2 or more required)  Water stained Leaves (B9)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi	OGY  drology Indicato cators (minimum of Surface Water (A1) High Water Table (A	rs: of one req		W 1,	2, 4A, and alt Crust (B	4B)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi	OGY  drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3)	rs: of one req		W 1, S	2, 4A, and alt Crust (Boquatic Inver	4B)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	rs: of one req		W 1, S: A	, <b>2, 4A, an</b> d alt Crust (B <sup>o</sup> quatic Inver ydrogen Su	4B)  11)  tebrates (B13)  Ifide Odor (C1)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi	drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (	rs: of one req (2)		W	2, 4A, and alt Crust (Bound of the Crust	4B) 11) tebrates (B13) tfide Odor (C1) zospheres alor Reduced Iron (	(Except MLRA ) ng Living Roots (C3) (C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Depth (inchese Remarks:  HYDROLO  Wetland Hy  Primary Indi  X	ocators (minimum ocators (minimum ocators (minimum ocators (minimum ocators (Minimum ocators (Maria Water Marks (B1)) Sediment Deposits (B3) Algal Mat or Crust (Elron Deposits (B5)	of one request.		W	2, 4A, and alt Crust (B' quatic Inversydrogen Su xidized Rhizeresence of Fecent Iron F	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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) Fac-Neutral Test (D5)
Depth (inchese Remarks:  HYDROLO  Wetland Hy  Primary Indi  X	drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (E Iron Deposits (B5) Surface Soil Cracks	Note: 1.2 (B6)	uired; check all th	W	2, 4A, and alt Crust (B' quatic Inverydrogen Su xidized Rhiz resence of Fecent Iron Ftunted or St	4B)  11)  tebrates (B13)  Ifide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi X	ocators (minimum ocators (minimum ocators (minimum ocators (minimum ocators (Minimum ocators (Maria Water Marks (B1)) Sediment Deposits (B3) Algal Mat or Crust (Elron Deposits (B5)	rs: of one req 2) B2) 34) (B6) n Aerial Ima	uired; check all th	W	2, 4A, and alt Crust (B' quatic Inverydrogen Su xidized Rhiz resence of Fecent Iron Ftunted or St	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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)  Fac-Neutral Test (D5)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi X	OGY  drology Indicato  cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B Iron Deposits (B5)  Surface Soil Cracks Inundation Visible or  Sparsely Vegetated	rs: of one req 2) B2) 34) (B6) n Aerial Ima	uired; check all th	W	2, 4A, and alt Crust (B' quatic Inverydrogen Su xidized Rhiz resence of Fecent Iron Ftunted or St	4B)  11)  tebrates (B13)  Ifide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Depth (inchese Remarks:  HYDROLO Wetland Hy Primary Indi X	OGY  drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegetated	rs: of one req 2) B2) 34) (B6) n Aerial Ima	uired; check all th	X O P R SI	2, 4A, and alt Crust (B' quatic Inver ydrogen Su xidized Rhiz resence of I ecent Iron F tunted or St ther (Explai	4B)  11)  tebrates (B13)  Ifide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Primary Indi  X  Field Obser	OGY  drology Indicato cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegetated  vations: Present? Yes	rs: of one req 2) B2) 34) (B6) n Aerial Ima	uired; check all th	W	2, 4A, and alt Crust (Br quatic Inver ydrogen Su xidized Rhiz resence of R ecent Iron F tunted or St ther (Explain	4B)  11)  tebrates (B13)  Ifide Odor (C1) zospheres alor Reduced Iron ( Reduction in Pl ressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (Except MLRA1, 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) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)

Remarks

None

Saturation from surface down to 10 inches. Algal mats at a distance of 4 feet from soil pit.

4796

Project/Site: LSI Property	City/County:	Gresham/Multnomah Sampling Date: 6/18/2008
Applicant/Owner: Port of Portland		State: OR Sampling Point: 12
Investigator(s): AH	Section, To	ownship, Range Township 1N/Range 3 East/Section 34C/TL 500
Landform (hillslope, terrace, etc.:)	Hillstope	Local relief (concave, convex, none): Slope Slope (%): <5%
Subregion (LRR):	Lat:	45°31'18.69" N Long: 122°25'29.78"W Datum:
Soil Map Unit Name:	Latourell loam	NWI Classification: PEMC
Are climatic/hydrologic conditions on the site		Yes X No (if no, explain in Remarks)
Are vegetation Soil or H		
		ematic? If needed, explain any answers in Remarks.)
Are vegetation Soil uring	- Indicately problem	and the coos, explain any anomale in remaining
SUMMARY OF FINDINGS - Atta	ach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	X No	
Hydric Soil Present? Yes	X No	Is Sampled Area within a Wetland? Yes X No No
Wetland Hydrology Present? Yes	X No	
Remarks:		<u> </u>
In Ditch 3		•
VEGETATION - Use scientific n	ames of plants.	
	absolute Dominant	Indicator Dominance Test worksheet:
1	% cover Species?	Status
Tree Stratum (plot size:)		Number of Dominant Species
1		That are OBL, FACW, or FAC 2 (A)
2		
3		Total Number of Dominant
4		Species Across All Strata: 2 (B)
1	= Total Cover	
Sapling/Shrub Stratum (plot size:	_) .	. Percent of Dominant Species
1		That are OBL, FACW, or FAC: (A/B)
2		
3		Prevalence Index Worksheet:
4		Total % Cover of Multiply by:
5		OBL Species x1 = 0
	0 = Total Cover	FACW species
Herb Stratum (plot size: 5' )		FACU Species ×4 = 0
1 Agrostis stolonifera	20 X	FAC UPL Species x5 = 0
2 Scirpus validus	5 X	OBL Column Totals 0 (A) 0 (B)
3 Juncus bufonius	3	FACW
4		Prevalence Index =B/A = #DIV/0I
5		
6		Hydrophytic Vegetation Indicators:
7		X Dominance Test is >50%
8		Prevalence Index is ≤ 3.0 <sup>1</sup>
J	28 = Total Cover	Morphological Adaptations¹ (provide supporting
Woody Vine Stratum (plot size:	1	data in Remarks or on a separate sheet) Wetland Non-Vascular Plants <sup>1</sup>
Woody Vine Stratum (plot size:	_'	Problematic Hydrophytic Vegetation¹ (Explain)
2		Trovenialio riyaraphylic vegatation (expiaili)
	0 = Total Cover	Indicators of hydric soil and wetland hydrology must be present, unless
	- Total Cover	disturbed or problematic.
J.		Hydrophytic
% Bare Ground in Herb Stratum	0	Vegetation Yes X No Present?
Remarks:		Triesenti

SOIL			PHS #	4796			Sampling Point:	12
Profile Descri	ption: (Describe to t Mairix	he depth	needed to docum	ent the indicato	r or confirm the abse	ence of Indicators.)		
(Inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup> Loc <sup>2</sup>	- Texture	Remarks	
0-6	10YR 3/2	100				Sand	Gravel present	
>6							shovel refusal due to rock	
Type: C=Con	centration, D=Depletion	on, RM=R	educed Matrix, CS	=Covered or Coa	ated Sand Grains	· · · · · · · · · · · · · · · · · · ·	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Appli	icable to	all LRRs, unle	ss otherwise	noted.)	Indic	ators for Problematic Hydric So	ils³:
	Histosol (A1)			San	dy Redox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Strip	ped Matrix (S6)		Red Parent Material (TF	(2)
	Black Histic (A3)			Loai	ny Mucky Mineral (F1	(except MLRA 1)	X Other (explain in Remar	
	Hydrogen Sulfide (A4	)		Loar	ny Gleyed Matrix (F2)			,
	Depleted Below Dark		A11)		leted Matrix (F3)			
	Thick Dark Surface (A		,		ox Dark Surface (F6)			
·	Sandy Mucky Mineral				leted Dark Surface (F)	"	Indicators of hydrophytic vegetation a	
	Sandy Gleyed Matrix	100			ox Depressions (F8)	,	hydrology must be present, unless di problematic	isturbed or
					ox Depressions (10)		problemate	
Restrictive	Layer (if present)	:				1		
_		N	lone					
Type: Depth (inche Remarks.				le Houses v	votland vozation	Hydric Soil Pre		
Type: Depth (inche Remarks. PHS was un	nable to dig in this ved. PHS's best p teria.	s area d	ue to rocky sol			as well as primar	sent? Yes X No y indicators of hydrology (i.e. saks during the growing season, a	
Type: Depth (inche Remarks. PHS was ur were obser wetland cri	nable to dig in this ved. PHS's best p teria.	s area d	ue to rocky sol			as well as primar	y indicators of hydrology (i.e. sa	
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy	nable to dig in thi ved. PHS's best p teria.	s area d professi	ue to rocky soi onal judgemen	t is that this a		as well as primar	y indicators of hydrology (i.e. sa	and meets
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy	nable to dig in this ved. PHS's best p teria. DGY rdrology Indicator	s area d professi	ue to rocky soi onal judgemen	t is that this a	rea is saturated for	as well as primar r at least two weel	y indicators of hydrology (i.e. saks during the growing season, a  Secondary Indicators (2 or more Water stained Leaves (6)	e required)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy	nable to dig in thit ved. PHS's best pateria. DGY vdrology Indicator	s area d professions: rs:	ue to rocky soi onal judgemen	t is that this a	rea is saturated fo	as well as primar r at least two weel	y indicators of hydrology (i.e. saks during the growing season, a	e required)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy	nable to dig in this ved. PHS's best p teria.  OGY vdrology Indicator icators (minimum of Surface Water (A1)	s area d professions: rs:	ue to rocky soi onal judgemen	that apply)  Wat	rea is saturated for	as well as primar r at least two weel	y indicators of hydrology (i.e. saks during the growing season, a  Secondary Indicators (2 or more Water stained Leaves (6)	e required)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	nable to dig in this ved. PHS's best p teria.  OGY rdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2)	s area d professions: rs:	ue to rocky soi onal judgemen	that apply)  Wat 1, 2,	er stained Leaves (B9	as well as primar r at least two weel	y indicators of hydrology (i.e. saks during the growing season, a  Secondary Indicators (2 or more  Water stained Leaves (6  (MLRA1, 2, 4A, and 48)	e required)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	nable to dig in this ved. PHS's best p teria.  OGY vdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3)	s area diprofessions:	ue to rocky soi onal judgemen	that apply)  Wat 1, 2, Salt Aqu Hyd	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C	as well as primar r at least two weel (Except MLRA	y indicators of hydrology (i.e. saks during the growing season, a  Secondary Indicators (2 or more  Water stained Leaves (E (MLRA1, 2, 4A, and 4E  X Drainage Patterns (B10)	e required) 39) 3) e (C2)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	nable to dig in this ved. PHS's best p teria.  OGY vdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	s area diprofessions: s: of one reconstructions:	ue to rocky soi onal judgemen	that apply)  Wat 1, 2, Salt Aqu Hyd Oxice	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C	as well as primar r at least two weel (Except MLRA  ) (Except MLRA  ) ong Living Roots (C3)	Secondary Indicators (2 or more Water stained Leaves (6 (MLRA1, 2, 4A, and 4E X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D	e required) 39) 3) b (C2) rial Imagery (C
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	nable to dig in this ved. PHS's best p teria.  DGY vdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	s area diprofessions: s: of one reconstructions:	ue to rocky soi onal judgemen	that apply)  Wat 1, 2, Salt Aqu Hyd Oxic	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C dized Rhizospheres ald sence of Reduced Iron	as well as primar r at least two weel (Except MLRA  ) (Except MLRA  ) (O) (C) (C)	Secondary Indicators (2 or more Water stained Leaves (E (MLRA1, 2, 4A, and 4E X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3)	e required) 39) 3) b (C2) rrial Imagery (C9)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	mable to dig in this ved. PHS's best p teria.  OGY vdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	s area diprofessions:  of one reconstructions:	ue to rocky soi onal judgemen	that apply)  Wat 1, 2, Salt Aqu Hyd Oxic Pres	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C lized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in F	as well as primar r at least two weel (Except MLRA  (C4) Plowed Soils (C6)	Secondary Indicators (2 or more Water stained Leaves (6 (MLRA1, 2, 4A, and 4E) X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5)	e required) 39) 3) b (C2) brial Imagery (C5)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	nable to dig in this ved. PHS's best p teria.  OGY rdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (	s area diprofessions: s: if one reconstant (2) 4) (B6)	ue to rocky sol onał judgemen quired; check all	that apply)  Wat  1, 2,  Salt  Aqu  Hyd  Oxic  Pres  Rec  Stur	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C lized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in F	as well as primar r at least two weel (Except MLRA  (Except MLRA  (C4) (C4) (C4) (C4) (C6) (C6) (C1) (LRR A)	Secondary Indicators (2 or more Water stained Leaves (B (MLRA1, 2, 4A, and 4B  X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6	e required) 39) 39) 6 (C2) 10 (LRR A)
Type: Depth (inche Remarks. PHS was u were obser wetland cri HYDROLO Wetland Hy Primary ind	mable to dig in this ved. PHS's best p teria.  OGY vdrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	s area diprofessions:  s:  if one reconstant  (B6)  Aerial Ima	ue to rocky sol onal judgemen quired; check all agery (B7)	that apply)  Wat  1, 2,  Salt  Aqu  Hyd  Oxic  Pres  Rec  Stur	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C lized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in F	as well as primar r at least two weel (Except MLRA  (Except MLRA  (C4) (C4) (C4) (C4) (C6) (C6) (C1) (LRR A)	Secondary Indicators (2 or more Water stained Leaves (6 (MLRA1, 2, 4A, and 4E) X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5)	e required) 39) 8) 0 e (C2) 1 irial Imagery (C5) 2)
Type: Depth (inche Remarks. PHS was un were obser wetland cri HYDROLO Wetland Hy Primary ind	mable to dig in this ved. PHS's best parties.  OGY  Idrology Indicator  icators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B1)  Iron Deposits (B5)  Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Interest in the Interest	s area diprofessions:  s:  if one reconstant  (B6)  Aerial Ima	ue to rocky sol onal judgemen quired; check all agery (B7)	that apply)  Wat  1, 2,  Salt  Aqu  Hyd  Oxic  Pres  Rec  Stur	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C lized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in F	as well as primar r at least two weel (Except MLRA  (Except MLRA  (C4) (C4) (C4) (C4) (C6) (C6) (C1) (LRR A)	Secondary Indicators (2 or more Water stained Leaves (B (MLRA1, 2, 4A, and 4B  X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6	e required) 39) 8) 0 e (C2) 1 irial Imagery (C5) 2)
Type: Depth (inche Remarks. PHS was un were obser wetland cri HYDROLO Wetland Hy Primary Ind X	mable to dig in this ved. PHS's best partial.  OGY  Idrology Indicator  Idrology Indic	s area diprofessions:  s:  if one reconstant  (B6)  Aerial Ima	ue to rocky soi onal judgemen quired; check all	that apply)  Wat  1, 2,  Salt  Aqu  Hyd  Oxic  Pres  Rec  Stur	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C dized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in Fe atted or Stressed Plants er (Explain in Remarks	as well as primar r at least two weel (Except MLRA  (Except MLRA  (C4) (C4) (C4) (C4) (C6) (C6) (C1) (LRR A)	Secondary Indicators (2 or more Water stained Leaves (B (MLRA1, 2, 4A, and 4B  X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6	e required) 39) 8) 0 e (C2) 1 irial Imagery (C5) 2)
Type: Depth (inche Remarks. PHS was ur were obser wetland cri HYDROLO Wetland Hy Primary Ind	mable to dig in this ved. PHS's best parties.  OGY  Idrology Indicator  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B1)  Iron Deposits (B5)  Surface Soil Cracks (Inundation Visible on  Sparsely Vegetated (Inundations:  In Present? Yes	s area diprofessions:  s:  if one reconstant  (B6)  Aerial Ima	ue to rocky sol onal judgemen quired; check all egery (B7) Surface (B8)	that apply)  Wat 1, 2, Salt Aqu Hyd Oxic Pres Rec Stur Othe	er stained Leaves (B9 4A, and 4B) Crust (B11) atic Invertebrates (B13 rogen Sulfide Odor (C dized Rhizospheres ald sence of Reduced Iron ent Iron Reduction in Falted or Stressed Plants er (Explain in Remarks	as well as primar rat least two weel  (Except MLRA  (C4)  Plowed Soils (C6)  (C1) (LRR A)	Secondary Indicators (2 or more Water stained Leaves (B (MLRA1, 2, 4A, and 4B  X Drainage Patterns (B10) Dry-Season Water Table Saturation Visible on Ae Geomorphic Position (D Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6	e required) 39) 8) 0 e (C2) 1 irial Imagery (CS

Remarks

4796

Project/Site:	LSI Property		City/County:	Gresh	am/Multnomah	Sampling Date:	7/1	5/2008
Applicant/Owner:	Port of Portland				State:	OR	Sampling Point	13
Investigator(s)	SE		Section, To	wnship, Range:	Township 1	N/Range 3 East/Se	ection 34C/TL	500
Landform (hillslope, to	errace, etc.:)	Hillslope	)	Local relief (con	cave, convex, none):	Stope	Slope (%)	<5%
Subregion (LRR):	A		Lat	45°31'18.6	<b>69" N</b> Long:	122°25'29.78"W	Datum:	
Soil Map Unit Name:		Latou	ıreli loam		NWI Clas	ssification:	Upland	
Are climatic/hydrologi	ic conditions on the site			Yes	X No_	(if no, expla	ain in Remarks)	
Are vegetation	Soil or Hy	drology	significantly dist	urbed?	Are "Normal Circumstance	es" present? (Y/N)	Yes	
Are vegetation	Soil or Hy	drology	naturally problem	natic? If needed,	explain any answers in Rer	marks.)		
CHAMADY OF		ah aita man			t laastisma transsat	a immantant fac	turas ata	
Hydrophytic Vegetation			snowing sa	inping poin	t locations, transect	s, important lea	tures, etc.	
Hydric Soil Present?	Yes	X No	x	Is Sampled Are			No X	
Wetland Hydrology P	-	No		a Wetlan	d?		10 X	
	resent: 103	140		<u> </u>				
Remarks: This area was inc	undated from nearb	y irrigation o	n a previous s	site visit, and	drainage patterns were	e observed. Howe	ver, hydric so	ils are not
present-this are	a does not meet we	etland criteria	ı.					
VEGETATION -	Use scientific na	mes of plan	its.					
		absolute	Dominant	Indicator	Dominance Test work	ksheet:		
Tree Stratum (plot	nien:	% cover	Species?	Status	N to ( Bi A G	·		
1	size.				Number of Dominant Spec That are OBL, FACW, or F		3	(A)
2					That are ODE, 1 AOVV, OF 1			(* ')
3					Total Number of Dominant	i		
4					Species Across All Strata:		3	(B)
		0	= Total Cover					
Sapling/Shrub Stratu	m (plot size:	)			Percent of Dominant Spec	ies		
1					That are OBL, FACW, or I	FAC:1	100%	(A/B)
3			-		Prevalence Index Wo	PARTICIO TARIA		
5					Total % Cover of OBL Species	Multiply by: x 1 =		
		0	= Total Cover		FACW species	x 2 =	0	
					FAC Species	x 3 =	0	
	size:)	40	v	(540)	FACU Species	x 4 =	0	
1 Mowed grass 2 Poa annua		20	<u>x</u>	FAC	UPL Species Column Totals	0 (A)	0	(B)
3 Trifolium repe	ens	25		FAC	Column Totals	<b>0</b> (A)		(6)
4 Taraxacum of	fficinale	5		FACU	Prevalence Index =B	I/A = #I	DIV/0I	
5								
6					Hydrophytic Vegetati	on Indicators:		
7						Dominance Test is >50		
8		90	- Total Cavas			Prevalence Index is ≤ 3 Morphological Adaptati		poorting
		90	= Total Cover			lata in Remarks or on		
Woody Vine Stratum	(plot size	_)			1	Vetland Non-Vascular		5
1					F	Problematic Hydrophyt	ic Vegetation <sup>1</sup> (E	xplain)
2					1			*** *** page
			= Tolal Cover		Indicators of hydric soil ar disturbed or problematic.	nd wetland hydrology n	nust be present,	unless
					Hydrophytic			
% Bare Ground in He	erb Stratum	0			Vegetation Present?	Yes X	_ No	
Remarks					I resent:			

			PHS	#	47	96			Sampling Point:	13
Profile Descr	lption: (Describe to t	he depth r	needed to do	cument	the indi	ator or con	firm the absen	ce of Indicators.)		
Depth	Matrix					Features				
(Inches)	Color (moist)	%	Color (mo	ist) _	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-3	7.5YR 3/2	100						Silt Loam		
3-16	10YR 3/3	100						Silt Loam		
									<del></del>	
¹Tuna: CaCaa	centration, D=Depletic		duced Matrix		word or	Coated San	d Grains		<sup>2</sup> Location: PL=Pore Lining, M=Matri	iv
	Indicators: (Appli							Indica	ators for Problematic Hydric S	
yano oon	Histosol (A1)	.04.0.0 10	un 211110, 1			Sandy Redo:			2 cm Muck (A10)	
	Histic Epipedon (A2)			_		Stripped Mat			Red Parent Material (1	TF2)
	Black Histic (A3)			_			y Mineral (F1) (	except MLRA 1)	Other (explain in Rem	
	Hydrogen Sulfide (A4	<b>;</b> )		-		oamy Gleye	ed Matrix (F2)			,
	Depleted Below Dark		A11)	_		Depleted Ma	trix (F3)			
	Thick Dark Surface (A	A12)				Redox Dark	Surface (F6)			
	Sandy Mucky Mineral	l (S1)				Depleted Da	rk Surface (F7)		Indicators of hydrophytic vegetation hydrology must be present, unless	
	Sandy Gleyed Matrix	(S4)		_		Redox Depre	essions (F8)		problematic.	0.0101000
Depth (inche	s)					•		Hydric Soil Pres	sent? Yes No	x
	s)					-		Hydric Soil Pres	sent? Yes No	х
								Hydric Soll Pres	sent? Yes No	X
Remarks		rs:						Hydric Soll Pres	sent? Yes No	X
Remarks  HYDROLO  Wetland Hy	OGY		uired; chec	k all tha	it apply)			Hydric Soll Pres	Secondary Indicators (2 or mo	
Remarks  HYDROLO  Wetland Hy	DGY ydrology Indicator		uired; chec	k all tha			d Leaves (B9) (		Secondary Indicators (2 or mo	ore required) (B9)
Remarks  HYDROLO  Wetland Hy	OGY /drology Indicator icators (minimum o	of one req	uired; chec	k all tha		1, 2, 4A, and	I 4B)		Secondary Indicators (2 or mo	ore required) (B9)
Remarks  HYDROLO  Wetland Hy	OGY /drology Indicator icators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	of one req	uired; chec	k all tha		1 <b>, 2, 4A, and</b> Salt Crust (B	1 <b>4B)</b> 11)		Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1	ore required) (B9) <b>4B)</b>
Remarks  HYDROLO  Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	of one req	uired; chec	k all tha		1 <b>, 2, 4A, and</b> Salt Crust (B Aquatic Inve	1 <b>4B)</b> 11) rtebrates (B13)		Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal	ore required) (B9) 4B) (0) ble (C2)
Remarks  HYDROLO  Wetland Hy	OGY  ydrology Indicator icators (minimum of Surface Water (A1))  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B	of one req	uired; chec	k all tha		1 <b>, 2, 4A, and</b> Salt Crust (B Aquatic Invel Hydrogen Su	14B) 11) rtebrates (B13) ulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS
HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	of one request.	uired; chec	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invel Hydrogen Su Oxidized Rhi	14B) 11) rtebrates (B13) lifide Odor (C1) zospheres alon	Except MLRA g Living Roots (C3)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position (	ore required) (B9) 4B) 10) ble (C2) Aerial Imagery (C3)
Remarks  HYDROLO  Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	of one request.	uired; chec	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C	Except MLRA  g Living Roots (C3) C4)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3)	ore required) (B9) 4B) (O) ble (C2) Aerial Imagery (CS)
Remarks  HYDROLO  Wetland Hy	JOGY  /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5)	of one req 2) B2)	uired; chec	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invel Hydrogen Su Oxidized Rhi Presence of Recent Iron I	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C	Except MLRA  g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5)	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (C9) (D2)
HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	of one req 2) B2) 4) (B6)		k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	14B) 11) rtebrates (B13) ilfide Odor (C1) zospheres alon Reduced Iron (C	Except MLRA  g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3)	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS(D2)
Remarks  HYDROLO  Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (	B2) (B6) Aerial Ima	gery (B7)	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C) Reduction in Plot tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS(D2)
HYDROLO Wetland Hy	JOGY  Adrology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Indicator)	B2) (B6) Aerial Ima	gery (B7)	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C) Reduction in Plot tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS(D2)
HYDROLO Wetland Hy Primary Ind	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Irron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Invations:	B2) (B6) Aerial Ima	igery (B7) urface (B8)	k all tha		1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C) Reduction in Plot tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS(D2)
HYDROLO Wetland Hy Primary Ind	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Cracks (Cracks)) In Present? Yes	B2) (B6) Aerial Ima	gery (B7) urface (B8)	-	Depth	1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Expla	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C) Reduction in Plot tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4 X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS(D2)
HYDROLO Wetland Hy Primary Ind  Field Obse Surface Wate	JOGY  Adrology Indicator  icators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B)  Iron Deposits (B5)  Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Visible on Visible on Sparsely Vegetated (Inundation Visible on Visible	B2) (B6) Aerial Ima	igery (B7) urface (B8) No)		Depth Depth	1, 2, 4A, and Salt Crust (B Aquatic Inverted Hydrogen Su Dividized Rhi Presence of Recent Iron I Stunted or S Other (Expla	14B) 11) rtebrates (B13) ulfide Odor (C1) zospheres alon Reduced Iron (C) Reduction in Plot tressed Plants (	Except MLRA  g Living Roots (C3) C4) owed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4  X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummoc	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (CS) (D2)
Field Obse Surface Water Table & Saturation Profincludes capilla	JOGY  Adrology Indicator  icators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B)  Iron Deposits (B5)  Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Visible on Visible on Sparsely Vegetated (Inundation Visible on Visible	B2) (B6) Aerial Ima	No No		Depth Depth Depth	1, 2, 4A, and Salt Crust (B Aquatic Invented on State of Recent Iron It Stunted or State of Carpeta (Explainments):  (inches):  (inches):	14B)  11)  rtebrates (B13)  ilfide Odor (C1)  zospheres alon  Reduced Iron (CR  Reduction in Plot  tressed Plants (in in Remarks)	Except MLRA  g Living Roots (C3) C4) awed Soils (C6) D1) (LRR A)  Wetland Hydr	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4  X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	ore required) (B9) 4B) (D0) ble (C2) Aerial Imagery (C9 (D2) (D6) (LRR A) ks (D7)
Field Obse Surface Water Table & Saturation Profincludes capilla	JOGY  /drology Indicator  icators (minimum of Surface Water (A1)) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Visible on Visible on Sparsely Vegetated (Inundation Visible on Vi	B2) (B6) Aerial Ima	No No		Depth Depth Depth	1, 2, 4A, and Salt Crust (B Aquatic Invented on State of Recent Iron It Stunted or State of Carpeta (Explainments):  (inches):  (inches):	14B)  11)  rtebrates (B13)  ilfide Odor (C1)  zospheres alon  Reduced Iron (CR  Reduction in Plot  tressed Plants (in in Remarks)	Except MLRA  g Living Roots (C3) C4) awed Soils (C6) D1) (LRR A)  Wetland Hydr	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and 4  X Drainage Patterns (B1 Dry-Season Water Tal Saturation Visible on A Geomorphic Position ( Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D Frost-Heave Hummock	ore required) (B9) 4B) (0) ble (C2) Aerial Imagery (C4) (D2) (D6) (LRR A) ks (D7)

4796

Project/Site: LSI Property	City/Coun	ity: Gresh	am/Multnomah Sampling Date 7/15/2008
Applicant/Owner: Port of Portland			State: OR Sampling Point: 14
Investigator(s) SE	Section	n, Township, Range:	Township 1N/Range 3 East/Section 34C/TL 500
Landform (hillslope, terrace, etc.:)			cave, convex, none): Slope Slope (%): <10%
Subregion (LRR) A			
Soil Map Unit Name:			NWI Classification: Upland
Are climatic/hydrologic conditions on the site			
Are vegetation Soil or Hy			Are "Normal Circumstances" present? (Y/N)  Yes
Are vegetation Soil or Hy	drologynaturally pr	oblematic? If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Atta	ch site map showing	g sampling poin	t locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No X	,	
Hydric Soil Present? Yes	No X	Is Sampled Are	
Wetland Hydrology Present? Yes	No X	a Wetlan	17 100 110 X
	140		
Remarks:  Near west lobe of Wetland E			
Meal West lobe of Wetland L			
VEGETATION - Use scientific na	mos of plants		
VEGETATION - 058 SCIENTING 112	absolute Dominar	nt Indicator	Dominance Test worksheet:
1	% cover Species		Sommarios 1331 Workshoot.
Tree Stratum (plot size: 30' )			Number of Dominant Species
1 Populus balsamifera	15 X	FAC	That are OBL, FACW, or FAC (A)
2 Robinia pseudoacacia	25 X	FACU	
3 Acer sp. (landscape variety)	10 X	NI	Total Number of Dominant
4			Species Across All Strata: 5 (B)
1	50 = Total Cov	ver	
Sapling/Shrub Stratum (plot size: 5'	)		Percent of Dominant Species
1 Rubus discolor	15 X	FACU	That are OBL, FACW, or FAC: 40% (A/B)
2			
3			Prevalence Index Worksheet:
4			Total % Cover of Multiply by:
5			OBL Species x 1 = 0
	15 = Total Cov	ver	FACW species x2 = 0
Herb Stratum (plot size: 5° )			FAC Species
1 Poa trivialis	80 X	FACW	UPL Species x 5 = 0
2 Taraxacum officinale	5	FACU	Column Totals 0 (A) 0 (B)
3 Cirsium vulgare	5	FACU	
4 Rumex crispus	10	FAC	Prevalence Index =B/A = #DIV/0I
5 Epilobium watsonii	10	FACW	
6 Holcus lanatus	3	FAC	Hydrophytic Vegetation Indicators:
7 Anthoxanthum odoratum	2	FACU	Dominance Test is >50%
8			Prevalence Index is ≤ 3.0 <sup>1</sup>
	115 = Total Cov	ver	Morphological Adaptations <sup>1</sup> (provide supporting
West Was Chair and Color State	`		dala in Remarks or on a separate sheet)  Wetland Non-Vascular Plants <sup>1</sup>
Woody Vine Stratum (plot size.	_′		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1 2			- Toblemane Hydrophyne vegetation (Explain)
	0 = Total Cov	uer .	Indicators of hydric soil and wetland hydrology must be present, unless
	- 10tal Cot	¥61	disturbed or problematic.
J(			Hydrophytic
% Bare Ground in Herb Stratum	0		Vegetation Yes No X Present?
Remarks:			F1656HLf
J			

			PHS#	4796	••••		Sampling Point:	14
Profile Descr	lption: (Describe to	the depth n	eeded to docum	ent the Indicator or c	onfirm the abser	nce of indicators.)		
Depth	Matrix			Redox Features				
(Inches)	Color (moist)	%	Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-10	10YR 3/2	100			_	Silt Loam		
10-16	2.5Y 3/2	95	10YR 3/6			Silt Loam		H
1-							2	
				Covered or Coated S		1 - 41 -	<sup>2</sup> Location: PL=Pore Lining, M=	
		icable to	all LRRs, unles	s otherwise note		indic	ators for Problematic Hydr	ic Soils":
	Histosol (A1)			Sandy Re			2 cm Muck (A10)	
	Histic Epipedon (A2)				fatrix (S6)		Red Parent Mater	ial (TF2)
	Black Histic (A3)			Loamy Mu	cky Mineral (F1)	(except MLRA 1)	Other (explain in f	Remarks)
	Hydrogen Sulfide (A	4)		Loamy Gl	eyed Matrix (F2)			
	Depleted Below Dark	Surface (A	(11)	Depleted i	Matrix (F3)			
	Thick Dark Surface (	A12)		Redox Da	rk Surface (F6)		<sup>3</sup> Indicators of hydrophytic veget	ation and watered
	Sandy Mucky Minera	al (S1)		Depleted I	Dark Surface (F7)	)	hydrology must be present, unl	
	Sandy Gleyed Matrix			Redox De	pressions (F8)	<del></del>	problematic.	
	Layer (if present)							
IVDE.		No						
Type: Depth (inche	s)		3110			Hydric Soll Pres	sent? Yes	No X
	s)					Hydric Soll Pres	sent? Yes	No X
Depth (inche	s):					Hydric Soll Pres	sent? Yes	No X
Depth (inche Remarks						Hydric Soll Pres	sent? Yes	No X
Depth (inche Remarks	DGY		710			Hydric Soll Pres	sent? Yes	No X
Depth (inche Remarks  HYDROLO Wetland Hy	DGY /drology Indicato	rs:				Hydric Soll Pres		
Depth (inche Remarks  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum c	rs:					Secondary Indicators (2 or	more required)
Depth (inche Remarks HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum o Surface Water (A1)	rs: of one requ		Water stai	ned Leaves (B9)		Secondary Indicators (2 or Water stained Lea	more required)
Depth (inche Remarks  HYDROLO Wetland Hy	OGY /drology Indicatol icators (minimum of Surface Water (A1) High Water Table (A	rs: of one requ		Water star 1, 2, 4A, a	nd 4B)		Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a	more required) lives (B9) lind 4B)
Depth (inche Remarks HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3)	rs: of one requ		Water stai	(B11)	(Except MLRA	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns	more required) lives (B9) lind 4B)
Depth (inche Remarks HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	rs: of one requ 2)		Water stai 1, 2, 4A, a Salt Crust Aquatic In	nd 4B) (B11) vertebrates (B13)	(Except MLRA	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water	more required) lives (B9) lind 4B) li (B10) r Table (C2)
Depth (inche Remarks HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (I	rs: of one requ 2)		Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1	(Except MLRA	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Wate Saturation Visible	more required) lives (B9) lind 4B) li (B10) r Table (C2) on Aerial Imagery (CS
Depth (inche Remarks HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	rs: of one requ 2) B2)		Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor	(Except MLRA ) ng Living Roots (C3)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi	more required)  aves (B9) and 4B)  a (B10)  r Table (C2) on Aerial Imagery (Cs) ion (D2)
Depth (inche Remarks HYDROLO Wetland Hy	JOGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	rs: of one requ 2) B2)		Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron (	(Except MLRA ) ng Living Roots (C3) (C4)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi	more required) lives (B9) lind 4B) li (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3)
Depth (inche Remarks HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	rs: of one requ 2) B2)		Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( n Reduction in Pl	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test (	more required) lives (B9) lind 4B) is (B10) ir Table (C2) on Aerial Imagery (Cs ion (D2) (D3) D5)
Depth (inche Remarks  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks	rs: of one requ 2) B2) 34) (B6)	uired; check all t	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted or	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Depth (inche Remarks HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	rs: of one requ 2) B2) B4) (B6)	uired; check all (	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted or	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( n Reduction in Pl	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test (	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Depth (inche Remarks  HYDROLO Wetland Hy Primary Indi	JOGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegelated	rs: of one requ 2) B2) B4) (B6)	uired; check all (	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro Stunted or	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Depth (inche Remarks  HYDROLO Wetland Hy Primary Indi	JOGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegelated or	rs: of one requ 2) B2) B4) (B6)	uired; check all ( gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted or	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Primary Indi	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegelated rvations: r Present? Yes	rs: of one requ 2) B2) B4) (B6)	gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted or Other (Ex	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound Frost-Heave Humi	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Primary Indi  Field Obse Surface Water Table F Saturation Pre	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegelated of Vations: In Present? Yes Present? Yes esent? Yes	rs: of one requ 2) B2) B4) (B6)	uired; check all ( gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted or	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound Frost-Heave Humin	more required) lives (B9) lind 4B) is (B10) r Table (C2) on Aerial Imagery (CS) ion (D2) (D3) D5)
Primary Indi  Field Obser Surface Water Table F Saturation Pre (indudes capilla	JOGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible or Sparsely Vegelated or Vations: In Present? Yes	rs: of one required 2) B2) B4) (B6) n Aerial Image Concave Su	gery (B7) urface (B8)  No X No X No X	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted or Other (Ex	(B11) vertebrates (B13) Sulfide Odor (C1 Rhizospheres alor of Reduced Iron ( in Reduction in PI Stressed Plants olain in Remarks)	(Except MLRA ) ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)  Wetland Hyd	Secondary Indicators (2 or Water stained Lea (MLRA1, 2, 4A, a Drainage Patterns Dry-Season Water Saturation Visible Geomorphic Positi Shallow Aquitard ( Fac-Neutral Test ( Raised Ant Mound Frost-Heave Humin	more required) lives (B9) lind 4B) li (B10) r Table (C2) on Aerial Imagery (Cs ion (D2) (D3) D5) lis (D6) (LRR A) mocks (D7)

Remarks

4796

n	Project/Site: LSI Property	Ci	ty/County:	Gresha	am/Multnomah	Sampling Date:	7/15	/2008
	Applicant/Owner: Port of Portland				State	OR s	Sampling Point:	15
	Investigator(s) AH		Section, Tov	vnship, Range:	Township 1	N/Range 3 East/Se		
	Landform (hillslope, terrace, etc.)	Hillslope		Local relief (con-	cave, convex, none):	Slope	Slope (%):	<10%
	Subregion (LRR): A		Lat:	45°31'18.6	9" N Long:	122°25'29.78"W	Datum:	
100	Soil Map Unit Name:	Aloha sil	t loam		NWI Clas	ssification:	PEMC	
	Are climatic/hydrologic conditions on the site	typical for this time of	of year?	Yes	X No	(if no, explai	n in Remarks)	
IJ	Are vegetation Soll or H	/drologysigr	nificantly distu	irbed?	Are "Normal Circumstance	es" present? (Y/N)	Yes	
0	Are vegetation Soil or H	/drologynati	urally problem	natic? If needed,	explain any answers in Rer	marks.)		
ı	CHARLA DV OF FINDINGS A44	- la - 14 la						
1	SUMMARY OF FINDINGS - Atta			mpling politi	l locations, transect	s, important leat	ures, etc.	
1	Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes			Is Sampled Are		V N	_	
I				a Wetland	d? res_	<u>X</u> N	·	
		<u> </u>						
	Remarks: In lower swale of Wetland E							
J								
n	VEGETATION - Use scientific na	ames of plants.						
ı		absolute Do	ominant	Indicator	Dominance Test work	(sheet:		
-		% cover S	pecies?	Status				
9	Tree Stratum (plot size:)				Number of Dominant Spec		2	(4)
	2		-		That are OBL, FACW, or F	AC	2	(A)
	3				Total Number of Dominant			
1	4				Species Across All Strata:		2	(B)
J		0 = T	otal Cover					
	Sapling/Shrub Stratum (plot size:	)			Percent of Dominant Spec	ies		
	4				That are OBL, FACW, or I	FAC10	00%	(A/B)
	2							
ı	3				Prevalence Index Wo			
	5				Total % Cover of	Multiply by:		
	5	0 = To	otal Cover		OBL Species FACW species	x1= x2=		
1			0.0.		FAC Species	x3=	0	
	Herb Stratum (plot size. 5' )				FACU Species	x 4 =	0	
	1 Holcus lanatus 2 Juncus effusus	25	X	FAC	UPL Species	x 5 =		
1	3 Agrostis stolonifera	10		FAC	Column Totals _	<b>0</b> (A)	(	(B)
1	4 Rumex crispus	3	<u>X</u>	FAC	Prevalence Index =B	/A = #n	IV/01	
1	5 Veronica americana	3	<del></del>	OBL	1 16 valence muck - D	TO TO	14101	
	6 Juncus acuminatus	3		OBL	Hydrophytic Vegetation	on Indicators:		
	7				Xc	Oominance Test is >50%	6	
1	8					Prevalence Index is ≤ 3		
J		64 = T	otal Cover		****	Norphological Adaptatio		
	Woody Vine Stratum (plot size:	Y				ata in Remarks or on a Vetland Non-Vascular F		
	1	°				roblematic Hydrophytic		plain)
J	2				****		1992	anne di
В		0 = T	otal Cover		Indicators of hydric soil an	d wetland hydrology m	ust be present, u	inless
					disturbed or problematic.  Hydrophytic			
II .	% Bare Ground in Herb Stratum	0			Vegetation	Yes X	No_	
	Demorks				Present?			
	Remarks							

SOIL	PHS # 4796	Sampling Point:

Profile Descrip	otion: (Describe to t	he depth	needed to d	ocument the inc	licator or co	nfirm the absen	ce of Indicators.)	
Depth	Matrix		-		ox Features	. 2		
(Inches)	Color (moist)		Color (m		Type'	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 4/2	95	7.5YR	3/4 5	C	<u> </u>	Silty Clay Loam	medium
3-16	10YR 4/2	95	7.5YR	3/4 5	<u> </u>	M	Silty Clay Loam	coarse
<sup>1</sup> Type: C=Conc	entration, D=Depleti	on, RM=Re	educed Matr	ix, CS=Covered o	or Coated Sa	nd Grains.		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	ndicators: (Appl						Indica	tors for Problematic Hydric Soils <sup>3</sup> :
	Histosol (A1)				Sandy Red	ox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma	atrix (S6)		Red Parent Material (TF2)
	Black Histic (A3)				-	ky Mineral (F1) (	except MLRA 1)	Other (explain in Remarks)
	Hydrogen Sulfide (A4	<b>!</b> )			-	ved Matrix (F2)	author 5	Transcenses Arman Constant Contract Con
	Depleted Below Dark		A11)	-	Depleted M			=
	Thick Dark Surface (			X	• ·	Surface (F6)		
	Sandy Mucky Minera				-	ark Surface (F7)		Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix				- '	ressions (F8)		hydrology must be present, unless disturbed or problematic
					-		T	
	_ayer (if present)						1	
Type:		N	one		_			
Depth (inches	):				-		Hydric Soil Pres	ent? Yes X No No
Remarks:								
HYDROLO	CV							
	drology Indicator	·e.						
_				1				0 1 1 1 10
	cators (minimum c	f one req	uired; ched	ck all that apply		(DO) /		Secondary Indicators (2 or more required)
	Surface Water (A1)	•			1, 2, 4A, an	ed Leaves (B9) ( d 4B)	EXCEPT MLKA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
	High Water Table (A	2)						
	Saturation (A3)				_Salt Crust (			X Drainage Patterns (B10)
	Water Marks (B1)	201				ertebrates (B13) sulfide Odor (C1)		Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
	Sediment Deposits (I	32)					g Living Roots (C3)	
	Drift Deposits (B3) Algal Mat or Crust (B	4)			-	Reduced Iron (		Geomorphic Position (D2)  Shallow Aquitard (D3)
	Iron Deposits (B5)	7)			•	Reduction in Pla	-	Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)			-	Stressed Plants (		Raised Ant Mounds (D6) (LRR A)
	Inundation Visible on		ngery (B7)		-	ain in Remarks)	,	Frost-Heave Hummocks (D7)
	Sparsely Vegetated							
Field Obser			Ma	V 5 "	<i>c</i> 1 - 1			
Surface Water			100.00		n (inches):			Daniel Da
Water Table Pi			-		n (inches):		wetland Hydr	ology Present?
Saturation Pres (includes capillar		<u>x</u>	No	Depti	n (inches):	surface		Yes X No
	rded Data (stream g	auge, moni	itorina well	erial photos, pre-	vious inspecti	ons), if available	1	
None	(o oo g	g-,o(ii						
								ł
Remarks:								
2" of inunda	ation observed a	djacent t	o data poi	nt.				

	S	

4796

Project/Site: L	SI Property		City/County:	Gresh	am/Multnomah	Sampling Date:	4/1	3/2011
Applicant/Owner: Port of	f Portland				Stat	e: OR	Sampling Point:	16
Investigator(s):	FS/SE		Section, To	wnship, Range:	Township	1N/Range 3 East/S	Section 34C/TL	500
Landform (hillslope, terrace, e	tc.:)	Hillslope	)	Local relief (cor	ncave, convex, none):	Slope	Slope (%):	<5
Subregion (LRR):	Α		Lat:	45°31'18.6	69" N Lon	g: <b>122°25'29.78" \</b>	N Datum:	
Soil Map Unit Name:			-		NWI	Classification:		
Are climatic/hydrologic conditi				Yes		lo (if no, exp		
Are vegetation Soil								
Are vegetation Soil			-					
						,		
SUMMARY OF FINDIN	IGS - Atta	ch site map	showing sa	mpling poin	t locations, trans	ects, important fe	atures, etc.	
Hydrophytic Vegetation Prese	nt? Yes	No	X	Is Sampled Ar	an and the lan			
Hydric Soil Present?	Yes	No	X	a Wetlan		es	No X	
Wetland Hydrology Present?	Yes	X No		i				
Remarks:								
Near east lobe of Wetlar	nd E		,					
<b>VEGETATION - Use s</b>	cientific na	mes of plar	nts.					
		absolute	Dominant	Indicator	Dominance Test w	orksheet:		
		% cover	Species?	Status				
Tree Stratum (plot size:					Number of Dominant S	• *************************************	4	(4)
1					That are OBL, FACW,	or FAC:	1	(A)
3					Total Number of Domir	ant		
4					Species Across All Stra		3	(B)
		0	= Total Cover					(-)
Sanling/Shaih Stratum (-1-		`			Description of Description of C	!		
Sapling/Shrub Stratum (plo		7			Percent of Dominant S That are OBL, FACW,		33%	(A/B)
1					I I I I I I I I I I I I I I I I I I I	UI FAC.	33 /6	(A/B)
3					Prevalence Index \	Worksheet:		
4		-			Total % Cover of	Multiply b	y:	
5					OBL Species	x 1 =		
		0	= Total Cover		FACW species	x 2 =	0	
					FAC Species	x 3 =	0	
Herb Stratum (plot size	5 )				FACU Species	x 4 =		
1 Taraxacum officinale	*	35	<u> </u>	FACU	UPL Species	×5=		
2 Poa compressa Plantago major		<u>25</u>	X	FACU	Column Totals	(A)	0	(B)
4 Unidentified grasses	······································	50	X	(FAC)	Prevalence Index	=R/Δ =	#DIV/0!	
5				(1710)	T TOVALCINOS ITIGOS		# <b>DIVIO</b> !	
6	,				Hydrophytic Veget	ation Indicators:		
7						1- Rapid Test for Hyd	rophytic Vegetatio	n
8						2- Dominance Test is	>50%	
		111	= Total Cover			3-Prevalence Index is	s ≤ 3.0 <sup>1</sup>	
						4-Morphological Adap		
Woody Vine Stratum (plot s	size	.)				data in Remarks or or		)
1						5- Wetland Non-Vasc		
2			- T-1-10		Indicates of building	Problematic Hydrophy		
		0	= Total Cover		disturbed or problemati	I and wetland hydrology c.	must be present,	urness
					Hydrophytic			
% Bare Ground in Herb Stratu	ım				Vegetation	Yes	No	X
Remarks:					Present?			

SOIL	PHS#	4796	Samp

oling Point: 16 Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.) Redox Features Matrix Depth Type<sup>1</sup> Loc2 Color (moist) % Color (moist) % Texture Remarks (Inches) 10YR 3/3 90 Silt Loam mixed matrix 0-8 10YR 3/2 10 Silt Loam 0-8 10YR 3/4 C 10YR 4/3 75 Silt Loam 8-12 15 M medium C 7.5YR 3/4 10 M medium 12-16 2.5Y 4/2 75 10YR 3/4 25 C M Silt Loam medium/coarse <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils<sup>3</sup>: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) Very Shallow Dark Surface (TF12) Loamy Gleyed Matrix (F2) Hydrogen Sulfide (A4) Other (explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) hydrology must be present, unless disturbed or Sandy Gleyed Matrix (S4) Redox Depressions (F8) problematic Restrictive Layer (if present): Type: None Depth (inches): Hydric Soil Present? Yes Remarks **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Water stained Leaves (B9) (Except MLRA Surface Water (A1) Water stained Leaves (B9) 1, 2, 4A, and 4B) (Except MLRA1, 2, 4A, and 4B) High Water Table (A2) X Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Water Marks (B1) 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) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Surface Soil Cracks (B6) 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 Depth (inches): Water Table Present? No 15 Wetland Hydrology Present? Yes Depth (inches): Saturation Present? X Depth (inches): 12 Yes X No Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: None Remarks:

4796

Project/Site: LSI Property		City/County:	Gresh	m/Multnomah Sampling Date:	4/13/2011
Applicant/Owner: Port of Portland				State: OR Sa	ampling Point: 17
Investigator(s): FS/SE		Section, To	wnship, Range:	Township 1N/Range 3 East/Sec	tion 34C/TL 500
Landform (hillslope, terrace, etc.)			Local relief (cor	ave, convex, none): Slope	Slope (%) <5
Subregion (LRR):		Lat:			Datum:
Soil Map Unit Name:	Latou	urell loam		NWI Classification:	
Are climatic/hydrologic conditions on the site	•		Yes		
				Are "Normal Circumstances" present? (Y/N)	
	43533555512	•		explain any answers in Remarks )	
				,	
SUMMARY OF FINDINGS - Atta	ch site map	showing sa	mpling poin	locations, transects, important featu	ıres, etc.
Hydrophytic Vegetation Present? Yes	X No		Is Sampled Are	JALE-	
Hydric Soil Present? Yes	X No		a Wetlan	? Yes X No	
Welland Hydrology Present? Yes	X No				
Remarks:			<u> </u>		
Within east lobe of Wetland E					
VEGETATION - Use scientific na	mes of plar	nts.			
	absolute	Dominant	Indicator	Dominance Test worksheet:	
Tora Charles (alet size)	% cover	Species?	Status		*
Tree Stratum (plot size: )				Number of Dominant Species	2 (4)
1				That are OBL, FACW, or FAC	2(A)
3				Total Number of Dominant	
4					2 (B)
	0	= Total Cover			(5)
Sapling/Shrub Stratum (plot size:	`			Parcent of Dominant Species	
1				Percent of Dominant Species  That are OBL, FACW, or FAC 10	0% (A/B)
2				100	(100)
3				Prevalence Index Worksheet:	***************************************
4				Total % Cover of Multiply by:	
5				OBL Species x 1 =	0
	0	= Total Cover		FACW species x 2 =	0
(classical fields)				FAC Species x 3 =	0
Herb Stratum (plot size: 5 )  1 Poa pratensis	40		FAC	FACU Species x 4 =	
Poa trivialis	40	x	FACW	UPL Species x 5 =  Column Totals 0 (A)	0 (B)
3 Epilobium watsonii	5		FACW	Column rotals(A)	0 (B)
4 Rumex obtusifolius	20	X	FAC	Prevalence Index =B/A = #DI	V/01
5 Ranunculus repens	10		FACW	-	
6 Veronica americana	10		OBL	Hydrophytic Vegetation Indicators:	
7 Rubus discolor	<1		FACU	1- Rapid Test for Hydroph	nytic Vegetation
8 Cardamine oligosperma	5		FAC	X 2- Dominance Test is >50	9%
	100	= Total Cover		3-Prevalence Index is ≤ 3	
la de la companya de				4-Morphological Adaptatio	
Woody Vine Stratum (plot size:	_)			data in Remarks or on a s	200
				5- Wetland Non-Vascular Problematic Hydrophytic V	
	0	= Total Cover		Indicators of hydric soil and wetland hydrology mus	
ıl		Total Cuvel		disturbed or problematic.	o. Do procont, among
				Hydrophytic	**
% Bare Ground in Herb Stratum				Vegetation Yes X Present?	No
Remarks:				1000111	
11					

-	-		

PHS # 4796

	0.20		e nev a	
Sam	nlind	٦Р	oin	t

17

Depth	ption: (Describe to					Aba abaas	(	
	Matrix	ine deptin	needed to docume		cator or col x Features	itirm the absei	nce of indicators.)	
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 3/1	60	10YR 3/3	40	C	M	Silty Clay Loam	disturbed soil
0-10	10YR 3/2	90	7.5YR 4/4	10		M	Silty Clay Loam	mixed ~50:50
10-16+	5Y 4/3	85	10YR 4/6	15		M	Gravelly Loam	mixed ~10% gravel
10-10+	31 4/3		1011/4/0			141	Graveny Loan	mixed = 10 % graver
<sup>1</sup> Type: C=Cond	centration, D=Depleti	on, RM=R	educed Matrix, CS=0	Covered o	r Coated Sar	d Grains.		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unless	s otherw	ise noted.	)	Indica	tors for Problematic Hydric Soils <sup>3</sup> :
	Histosol (A1)				Sandy Redo	x (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma	trix (S6)		Red Parent Material (TF2)
	Black Histic (A3)				Loamy Mucl	y Mineral (F1)	(except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	1)			Loamy Gley	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	Surface (/	A11)		Depleted Ma	atrix (F3)		
The same of the sa	Thick Dark Surface (			X		Surface (F6)		
	Sandy Mucky Minera	(S1)			Depleted Da	rk Surface (F7)	)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix				Redox Depr			hydrology must be present, unless disturbed or problematic
	Layer (if present)					, ,	7	
	Layer (II present)							
Type:			cted loam					
Depth (inches	s):		10				Hydric Soil Pres	ent? Yes X No No
HYDROLO	)GY							
						·	·	
-	drology Indicator	rs:						
Drimon, Indi	drology Indicator		uired: abook all th	not apply!				Secondary Indicators (2 or more required)
	cators (minimum c		uired; check all th	nat apply)		od Legwes (RQ)	(Event MI DA	Secondary Indicators (2 or more required)
X	cators (minimum c	of one req	uired; check all th	nat apply	Water staine		(Except MLRA	Water stained Leaves (B9)
X X	cators (minimum c Surface Water (A1) High Water Table (A:	of one req	uired; check all th	nat apply	Water stains	d 4B)	(Except MLRA	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)
X X X	cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3)	of one req	uired; check all th	nat apply	Water staine 1, 2, 4A, and Salt Crust (E	d 4B) 311)		Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1)	of one req	uired; check all th	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve	<b>1 4B)</b> 311) rtebrates (B13)		Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (I	of one req	uired; check all th	nat apply	Water stained 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen S	d 4B) 311) rtebrates (B13) ulfide Odor (C1)	)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
X X X	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	of one req	uired; check all th	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh	d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres alor	) ng Living Roots (C3)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (I Drift Deposits (B3) Algal Mat or Crust (B	of one req	uired; check all th	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of	d 4B) st1) rtebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron (	) ng Living Roots (C3) (C4)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	of one req 2) B2)	uired; check all th	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron	d 4B)  state (B13)  rtebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pi	ng Living Roots (C3) (C4) lowed Soils (C6)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks	of one req 2) B2) (4)		nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si	d 4B)  state (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pl  tressed Plants	ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
X X X	cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	of one req 2) B2) (4) (B6)	gery (B7)	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si	d 4B)  state (B13)  rtebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pi	ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)
X X X	Cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (	of one req 2) B2) (4) (B6)	gery (B7)	nat apply	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si	d 4B)  state (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pl  tressed Plants	ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
X X X	Cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated (Vations:	B2) (B6) Aerial Ima	gery (B7) urface (B8)		Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen S Oxidized Rh Presence of Recent Iron Stunted or S Other (Expla	at 4B)  attebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pl  tressed Plants  in in Remarks)	ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
X X X Signature Surface Water	Cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (Co	bf one requests  (B6)  Aerial Ima Concave S	gery (B7) urface (B8) No	Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain (inches):	at 4B)  artebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pl  tressed Plants  in in Remarks)	ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X Signature Surface Water Water Table P	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Vations: Present? Yes	B2) (B6) Aerial Ima Concave S	gery (B7) urface (B8) No No	Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or S Other (Explain (inches): (inches):	at 4B) states (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl tressed Plants in in Remarks)	ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X X Similar to the second of the second	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Invations: Present? Yes Iresent? Yes Iresent? Yes	bf one request.  B2)  B3)  (B6)  Aerial Ima Concave S	gery (B7) urface (B8) No	Depth	Water staine 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain (inches):	at 4B)  artebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron (  Reduction in Pl  tressed Plants  in in Remarks)	ng Living Roots (C3) (C4) owed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X X Field Obser Surface Water Water Table P Saturation Pre (includes capillar	Cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (Control of Sparsely Vegetated	bf one requests  (B6) Aerial Ima Concave S  X X X	gery (B7) urface (B8) No No	Depth Depth Depth	Water stains 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain) (inches): (inches): (inches):	at 4B)  attebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron ( Reduction in Pl  tressed Plants  in in Remarks)  1 0 0	y Living Roots (C3) (C4) (C4) (C6) (C6) (C1) (LRR A) (C6) (Wetland Hydra)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X X  Field Obser Surface Water Water Table P Saturation Pre (includes capillar)	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Algal Mat or Crust (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Invations: Present? Yes Iresent? Yes Iresent? Yes	bf one requests  (B6) Aerial Ima Concave S  X X X	gery (B7) urface (B8) No No	Depth Depth Depth	Water stains 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain) (inches): (inches): (inches):	at 4B)  attebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron ( Reduction in Pl  tressed Plants  in in Remarks)  1 0 0	y Living Roots (C3) (C4) (C4) (C6) (C6) (C1) (LRR A) (C6) (Wetland Hydra)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X X  Field Obser Surface Water Water Table P Saturation Pre (includes capillar Describe Reco	Cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (Control of Sparsely Vegetated	bf one requests  (B6) Aerial Ima Concave S  X X X	gery (B7) urface (B8) No No	Depth Depth Depth	Water stains 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain) (inches): (inches): (inches):	at 4B)  attebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron ( Reduction in Pl  tressed Plants  in in Remarks)  1 0 0	y Living Roots (C3) (C4) (C4) (C6) (C6) (C1) (LRR A) (C6) (Wetland Hydra)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
X X X X  Field Obser Surface Water Water Table P Saturation Pre (includes capillar Describe Reco	Cators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated (Control of Sparsely Vegetated	bf one requests  (B6) Aerial Ima Concave S  X X X	gery (B7) urface (B8) No No	Depth Depth Depth	Water stains 1, 2, 4A, and Salt Crust (E Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Stunted or Si Other (Explain) (inches): (inches): (inches):	at 4B)  attebrates (B13)  ulfide Odor (C1)  izospheres alor  Reduced Iron ( Reduction in Pl  tressed Plants  in in Remarks)  1 0 0	y Living Roots (C3) (C4) (C4) (C6) (C6) (C1) (LRR A) (C6) (Wetland Hydra)	Water stained Leaves (B9) (Except MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  X Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

4796

Project/9	Site: L	SI Property		City/County:	Gresha	am/Multn	omah	Sampling Date:	6/1	8/2008
Applican	t/Owner: Port o	f Portland					State:	OR	Sampling Point:	18
Investiga	ator(s)	SE		Section, To	wnship, Range		Township 1	N/Range 3 East/Se	ection 34C/TL	500
Landform	n (hillslope, terrace, e	tc.:)	Hillslope	•	Local relief (con	cave, conve	ex, none):	Slope	Slope (%):	<15%
				Lat:	45°31'18.6	69" N	Long:	122°25'29.78"W		
	Unit Name			-			_	sification:	_	
1	atic/hydrologic conditi				Yes	x		(if no, expla		
	etation Soil					***************************************	***	es" present? (Y/N)		
	etation Soil			-					103	
Ale vege	etation Soil_	Or Hy	/urorogy	·	nauc? ii neeueu,	explain any	y answers in Ren	narks.)		
SUMN	IARY OF FINDIN	IGS – Atta	ch site map	showing sa	mpling poin	t locatio	ns, transect	s, important fea	tures, etc.	
Hydroph	ytic Vegetation Prese	nt? Yes	No	Х						
	oil Present?	Yes			Is Sampled Are		Yes	1	No X	
Wetland	Hydrology Present?	Yes	No							
Remarks					<u> </u>					
11	of Wetland F									
VEGE	TATION - Use s	cientific na	ames of plar	nts.						
	-		absolute	Dominant	Indicator	Domina	nce Test work	sheet:		
			% cover	Species?	Status		and the second con-			
Tree Str	atum (plot size: -	)					f Dominant Speci		_	
		***************************************				That are C	BL, FACW, or F	AC:	0	(A)
2						Total Nive	har of Daminast			
13-						1000	ber of Dominant cross All Strata:		1	(B)
	1. 1. 1. 1.		0	= Total Cover		Species A	CIUSS AII STIAIA.			(6)
Capting	Charle Circles									
Sapling/	Shrub Stratum (plot	size:	_)			1	Dominant Speci		00/	(A /D)
						That are C	BL, FACW, or F	AC	0%	(A/B)
3						Prevaler	nce Index Wor	ksheet:		
14-			-			Total % Co		Multiply by:		
5							Species	x1=	_ 0	
	·		0	= Total Cover		FACV	V species	x 2 =	0	
			•				Species	x 3 =	0	
	atum (plot size:	5' )				FACU	J Species _	× 4 =	0	
1'-	sium arvense		3		FACU		Species _	x 5 =	0	
	oochaeris radicata us corniculatus		10		FACU	Colur	nn Totals	<b>0</b> (A)	0	(B)
1 °	ontodon nudicauli	s	<u>15</u>		UPL	Descri	nlonge Inda.: -D	ســـــــــــــــــــــــــــــــــــــ	217//01	
	ium perenne		70	x	FACU	Prev	alence Index =B/	A - #L	DIV/0I	
	axacum officinale	!	3		FACU	Hydronh	ytic Vegetation	on Indicators:		
11 °	annua		1		FAC	, y ar opri		ominance Test is >50°	%	
8 Vic	ia sp.		3		(FAC)			revalence Index is ≤ 3		
			107	= Total Cover		_	М	orphological Adaptation	ons¹ (provide sup	porting
						-		ata in Remarks or on a		)
-	/ine Stratum (plot s	ize	_)			_		etland Non-Vascular		
1						_	P:	roblematic Hydrophyti	c Vegetation <sup>1</sup> (E	xplain)
2						1				
			0	= Total Cover			of hydric soil and or problematic.	d wetland hydrology m	lust be present,	unless
						Hydroph	5000			
% Bare	Ground in Herb Stratu	m	0			Vegetati	on	Yes	_ No	X
Remarks	s:					Present	<u>'</u>			
	70									

SOIL			PHS#	4796	-		Sampling Point:	18
	The state of the s	the depth r	needed to docume	ent the Indicator or co	onfirm the abse	nce of indicators.)		
Depth (Inches)	Color (moist)	%	Color (moist)	Redox Features  % Type <sup>1</sup>	Loc²	Texture	Remarks	
0-10	7.5YR 3/2	100	Color (moist)			Silt Loam	Remains	
10-16	10YR 3/2	95	10YR 3/4	5 C	M	Silt Loam		
<sup>1</sup> Type: C=Con	centration, D=Deplet	on, RM=Re	educed Matrix, CS=	Covered or Coated Sa	and Grains		<sup>2</sup> Location: PL=Pore Lining, M=Mate	rix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwise noted	i.)	Indic	ators for Problematic Hydric S	Soils <sup>3</sup> :
	Histosol (A1)			Sandy Red	dox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped M	latrix (S6)		Red Parent Malerial (	TF2)
	Black Histic (A3)			Loamy Mu	cky Mineral (F1)	(except MLRA 1)	Other (explain in Rem	narks)
	Hydrogen Sulfide (A4	1)		Loamy Gle	yed Matrix (F2)			
	Depleted Below Dark	Surface (A	(11)	Depleted N	/latrix (F3)			
	Thick Dark Surface (/	A12)		X Redox Dar	k Surface (F6)			
	Sandy Mucky Minera	l (S1)		Depleted 0	Dark Surface (F7)	1	Indicators of hydrophytic vegetation hydrology must be present, unless	
	Sandy Gleyed Matrix	(S4)		Redox De	oressions (F8)		problematic.	distalbed of
Гуре: Depth (inche			one			Hydric Soil Pres	sent? Yes X No	
Type: Depth (inche			one			Hydric Soil Pres	sent? Yes X No	
Type: Depth (inche Remarks:	s)	No	one			Hydric Soil Pres	sent? Yes X No	
Type: Depth (inche Remarks:	s)	No	one			Hydric Soil Pres	sent? Yes X No	
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	s)	No					sent? Yes X No Secondary Indicators (2 or mo	
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1)	rs: of one requ		Water stair	ned Leaves (B9)		Secondary Indicators (2 or mo	ore required)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A)	rs: of one requ		Water stair 1, 2, 4A, a	nd 4B)		Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and	ore required) (89) 48)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3)	rs: of one requ		Water stair 1, 2, 4A, a Salt Crust	nd 4B) (B11)	(Except MLRA	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (B	ore required) (89) <b>48)</b>
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1)	rs: of one requ		Water stain 1, 2, 4A, a Salt Crust Aquatic Inv	nd 4B) (B11) vertebrates (B13)	(Except MLRA	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Ba	ore required) (89) 48) 10) ble (C2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B)	rs: of one requ		Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1)	(Except MLRA	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (B* Dry-Season Water Ta	ore required) (89) 48) (10) (ble (C2) Aerial Imagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	rs: of one requ		Water stain 1, 2, 4A, a Salt Crust Aquatic Interpretation Hydrogen Oxidized F	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor	(Except MLRA ) ng Living Roots (C3)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bo Dry-Season Water Ta Saturation Visible on A Geomorphic Position	ore required) (B9) 4B) (IO) (ble (C2) Aerial Imagery (C4) (D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	rs: of one requ		Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen Oxidized F Presence	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor of Reduced Iron (	(Except MLRA ) ng Living Roots (C3) (C4)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Br Dry-Season Water Ta Saturation Visible on A Geomorphic Position Shallow Aquitard (D3)	ore required) (89) 4B) (0) (ble (C2) Aerial Imagery (C6) (D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	rs: of one required: 2) B2)		Water stain 1, 2, 4A, a Salt Crust Aquatic Int Hydrogen Oxidized F Presence of Recent Iro	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bo Dry-Season Water Ta Saturation Visible on A Geomorphic Position	ore required) (89) 48) (10) ble (C2) Aerial Imagery (C3) (D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	rs: of one required: 2) B2) (B6)	uired; check all t	Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1 thizospheres alor of Reduced Iron ( n Reduction in Pl	(Except MLRA ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (B <sup>2</sup> Dry-Season Water Ta Saturation Visible on a Geomorphic Position Shallow Aquitard (D3) Fac-Neutral Test (D5)	ore required) (B9) 4B) (I0) ble (C2) Aerial Imagery (Ci(D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks	rs: of one required: 2) B2) (B6) Aerial Image	uired; check all t	Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor of Reduced Iron ( in Reduction in Pl Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard (Band	ore required) (B9) 4B) (I0) ble (C2) Aerial Imagery (C5) (D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Vegetated	rs: of one required: 2) B2) (B6) Aerial Image	uired; check all t	Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor of Reduced Iron ( in Reduction in Pl Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard (Band	ore required) (B9) 4B) (I0) ble (C2) Aerial Imagery (C5) (D2)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Ind	DGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Invations:	rs: of one required: 2) B2) (B6) Aerial Image	uired; check all t	Water stain 1, 2, 4A, a Salt Crust Aquatic Inv Hydrogen Oxidized F Presence of Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor of Reduced Iron ( in Reduction in Pl Stressed Plants	(Except MLRA ) ng Living Roots (C3) (C4) lowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard (Band	ore required) (B9) 4B) (I0) ble (C2) Aerial Imagery (Ci(D2)
Primary Ind	OGY /drology Indicator icators (minimum of Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (Inundation Visible on Visible on Sparsely Vegetated (Inundation Visible on Vis	rs: of one required: 2) B2) (B6) Aerial Image	uired; check all t gery (B7) urface (B8)	Water stain 1, 2, 4A, a Salt Crust Aquatic Int Hydrogen Oxidized F Presence of Recent Iro Stunted or Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres alor of Reduced Iron ( in Reduction in Pl Stressed Plants	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or mo Water stained Leaves (MLRA1, 2, 4A, and Drainage Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard Patterns (Bandard (Band	ore required) (B9) 4B) (I0) ble (C2) Aerial Imagery (C5) (D2)

Remarks

4796

1	Project/Site: LSI Property	City/County:	Gresha	am/Multnomah	Sampling Date:	6/18/2008
	Applicant/Owner: Port of Portland			State	OR	Sampling Point: 19
	Investigator(s) AH	Section, To	ownship, Range	Township 1	N/Range 3 East/Se	ction 34C/TL 500
	Landform (hillslope, terrace, etc.:)	Hillslope	Local relief (con	cave, convex, none).	Slope	Slope (%) <15%
	Subregion (LRR):	Lat:	45°31'18.6	<b>9" N</b> Long:	122°25'29.78"W	Datum:
	Soil Map Unit Name:	Latourell loam		NWI Clas	sification:	PEMC
	Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes	X No	(if no, expla	in in Remarks)
J	Are vegetation Soil or Hy	ydrologysignificantly dist	turbed?	Are "Normal Circumstance	es" present? (Y/N)	Yes
1	Are vegetation Soil or Hy	ydrology naturally proble	matic? If needed,	explain any answers in Ren	narks.)	
'	SUMMARY OF FINDINGS - Atta		ampling point	t locations, transect	s, important fea	tures, etc.
1	Hydrophytic Vegetation Present? Yes	X No	is Sampled Are			
	Hydric Soil Present? Yes	X No	a Wetian	d? Yes_	<u>X</u> N	No
	Wetland Hydrology Present? Yes _	X No	<u> </u>			
١	Remarks: Within upper end of Wetland F					
	Trialing appear on a or viction a r					
	VEGETATION - Use scientific na	ames of plants.				
		absolute Dominant	Indicator	Dominance Test work	sheet:	
1		% cover Species?	Status			
1	Tree Stratum (plot size:)			Number of Dominant Spec		
1	1		-	That are OBL, FACW, or F	AC:	3 (A)
•	3			Total Number of Demisers		
1	4			Total Number of Dominant Species Across All Strata		3 (B)
		0 = Total Cover		opedes Adioss Air Strata		3 (6)
	Sapling/Shrub Stratum (plot size			Percent of Dominant Speci	00	
1	1	-'		That are OBL, FACW, or F		00% (A/B)
	2		••••			(100)
	3			Prevalence Index Wor	rksheet:	
l	4			Total % Cover of	Multiply by:	_
J	5			OBL Species	x 1 =	0
1		0 = Total Cover		FACW species	x 2 =	0
	Herb Stratum (plot size: 5' )			FAC Species FACU Species	x 3 = x 4 =	0
,	1 Holcus lanatus	30 X	FAC	UPL Species	×5=	0
1	2 Lotus corniculatus	30 X	FAC	Column Totals	<b>0</b> (A)	<b>0</b> (B)
J	3 Mowed grass	40 X	(FAC)		,	
	4 Equisetum arvense	10	FAC	Prevalence Index =B	/A = #[	DIV/0!
1	5					
	6			Hydrophytic Vegetation		•
	7 8				rominance Test is >50° revalence Index is ≤ 3	
		110 = Total Cover				ons <sup>1</sup> (provide supporting
J		Trouble Total Cover			ata in Remarks or on a	
0	Woody Vine Stratum (plot size:	)		v	Vetland Non-Vascular	Plants <sup>1</sup>
	1			P	roblematic Hydrophyti	c Vegetation <sup>1</sup> (Explain)
ı	2			1		
1		0 = Total Cover		<sup>1</sup> Indicators of hydric soil an disturbed or problematic.	d wetland hydrology m	iust be present, unless
				Hydrophytic		
4	% Bare Ground in Herb Stratum	0		Vegetation	Yes X	No
1	Remarks			Present?		
ı						

-	-		•	
·	m	1	ĸ	

This area is a seep located on a moderate slope.

HS#	4796

Sampling Point:	19

Profile Descrip	otlon: (Describe to	the denth r	needed to documen	t the ind	icator or cor	ofirm the absen	ice of Indicators.)		
Depth	Matrix	the depth i	leeded to documen		x Features	min the absen	ice of malcators.		
(Inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks	
0-8	10YR 2/2	95	10YR 3/6	5	С	M	Silty Clay Loam	medium	
8-16	10YR 2/2	95	10YR 3/6	5	С	M	Silty Clay Loam	medium	
			<del></del>						
			***************************************						
			<del></del>						
								*	
Type: C=Cond	centration, D=Deplet	ion, RM=Re	duced Matrix, CS=C	overed o	r Coated San	d Grains.		<sup>2</sup> Location: PL=Pore Lining, M=	Malrix.
Hydric Soil	Indicators: (App	licable to	all LRRs, unless	otherw	ise noted.	)	Indica	ators for Problematic Hydr	ic Soils <sup>3</sup> :
	Histosol (A1)		_		Sandy Redo	x (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)	)	_		Stripped Ma	trix (S6)		Red Parent Mater	rial (TF2)
	Black Histic (A3)				Loamy Muck	ky Mineral (F1) (	except MLRA 1)	Other (explain in I	Remarks)
	Hydrogen Sulfide (A	4)	-		Loamy Gley	ed Matrix (F2)			
	Depleted Below Dark		-(11)		Depleted Ma	atrix (F3)			
	Thick Dark Surface (			Х		Surface (F6)			
	Sandy Mucky Minera		-			rk Surface (F7)		3Indicators of hydrophytic veget	
	Sandy Gleyed Matrix		-		Redox Depr			hydrology must be present, un problematic.	less disturbed or
					Trodox Depi		T	production	
Restrictive	Layer (if present	<b>}</b> :							
Type:		N	one		_				
Depth (inches	s):				-		Hydric Soil Pres	sent? Yes X	No
Remarks									
HYDROLO									
Wetland Hy	drology Indicato	rs:							
Primary Indi	cators (minimum	of one req	uired; check all tha	at apply	)			Secondary Indicators (2 or	r more required)
	Surface Water (A1)				Water staine	ed Leaves (B9) (	Except MLRA	Water stained Lea	aves (B9)
	High Water Table (A	2)	•		1, 2, 4A, and	d 4B)		(MLRA1, 2, 4A, a	and 4B)
	Saturation (A3)				Salt Crust (E	311)		X Drainage Pattems	s (B10)
	Water Marks (B1)				Aquatic Inve	rtebrates (B13)		Dry-Season Wate	er Table (C2)
	Sediment Deposits (	(B2)	•		Hydrogen Si	ulfide Odor (C1)		Saturation Visible	on Aerial Imagery (C9)
	Drift Deposits (B3)				Oxidized Rh	izospheres alon	g Living Roots (C3)	X Geomorphic Posit	tion (D2)
	Algal Mat or Crust (E	34)			Presence of	Reduced Iron (	C4)	Shallow Aquitard	(D3)
	Iron Deposits (B5)				Recent Iron	Reduction in Pk	owed Soils (C6)	Fac-Neutral Test (	(D5)
-	Surface Soil Cracks	(B6)	-		Stunted or S	tressed Plants (	(D1) (LRR A)	Raised Ant Mound	ds (D6) (LRR A)
	Inundation Visible or	n Aerial Ima	gery (B7)		Other (Expla	in in Remarks)		Frost-Heave Hum	mocks (D7)
	Sparsely Vegetated	Concave Si	urface (B8)						
Field Obser	vatione:						·		
			No. V	Donth	(inches):				
Surface Water			No X		(inches):		Matter and the state		
Water Table P			No X	A440	(inches):		vvetiano riyor	rology Present?	
Saturation Pre (includes capillar			No X	Depth	(inches):			Yes X	No
		augo moni	toring well parial abo	tor prov	ious inspecti	ana) if quailable			
None	waea bala (sileath (	euge, moni	toring well, aerial pho	nus, prev	inapetiii	ura), ii avallaule			
Demarks									
Remarks									
Curfoss and	uration about:	d in this s	ros on a province	o elte	nite ntandi.	na watar ak-	aniad E' from this	data point on the day date	

Project/Site LSI Property	City/County:	Gresham/Multnomah Sampling Date: 6/18/2008
Applicant/Owner: Port of Portland		State: OR Sampling Point 20
Investigator(s): SE	Section, To	Township, Range Township 1N/Range 3 East/Section 34C/TL 500
Landform (hillslope, terrace, etc)	Hillslope	Local relief (concave, convex, none): Siope Slope (%) <15%
Subregion (LRR): A	Lat	45°31'18.69" N Long: 122°25'29.78"W Datum
Soil Map Unit Name:	Wollent silt loam	NWI Classification: PEMC
Are climatic/hydrologic conditions on the site		Yes X No (if no, explain in Remarks)
Are vegetation Soil or H	ydrology significantly dist	sturbed? Are "Normal Circumstances" present? (Y/N) Yes
Are vegetation Soil or H	ydrology naturally probler	ematic? If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Atta		ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes _	X No	is Sampled Area within
Hydric Soil Present? Yes _		a Wetland? Yes X No No
Wetland Hydrology Present? Yes _	X No	
Remarks		
South edge of Wetland G (pond)		
VEGETATION - Use scientific n	ames of plants. absolute Dominant	Indicator Dominance Test worksheet:
	% cover Species?	Status
Tree Stratum (plot size )		Number of Dominant Species
1		That are OBL, FACW, or FAC: 1 (A)
2		
3		Total Number of Dominant
4		Species Across All Strata 1 (B)
	0 = Total Cover	
Sapling/Shrub Stratum (plot size	_)	Percent of Dominant Species
1		That are OBL, FACW, or FAC. 100% (A/B)
2		
3		Prevalence Index Worksheet:
5		
	0 = Total Cover	FACW species x 2 = 0
		FAC Species x 3 = 0
Herb Stratum (plot size: 5')		FACU Species x 4 = 0
Phalaris arundinacea	85X	FACW UPL Species x 5 = 0
2 Plantago lanceolata	15	FAC Column Totals 0 (A) 0 (B)
3		Prevalence Index =B/A = #DIV/0I
5		Prevalence index -D/A - #DIA/01
6		Hydrophytic Vegetation Indicators:
7		X Dominance Test is >50%
8		Prevalence Index is ≤ 3.0 <sup>1</sup>
	100 = Total Cover	Morphological Adaptations <sup>1</sup> (provide supporting
		data in Remarks or on a separate sheet)
Woody Vine Stratum (plot size:	_'	Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophylic Vegetation <sup>1</sup> (Evoluin)
1 2		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	0 = Total Cover	Indicators of hydric soil and wetland hydrology must be present, unless
	- Total Govel	disturbed or problematic
N Para Commedia No. 1 Comme	0	Hydrophytic
% Bare Ground in Herb Stratum	0	Vegetation Yes X No Present?
Remarks:		

			PHS#	47	796	•		Sampling Point: 20
Profile Descrip	otion: (Describe to t	he depth i	needed to docume	ent the Indi	cator or co	nfirm the abser	nce of indicators.)	
Depth	Matrix				x Features			
(Inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type¹	Loc²	Texture	Remarks
0-3	10YR 3/2	100					Silt Loam	***************************************
3-14	2.5Y 3/1	90	10YR 3/4	10	С	M	Silty Clay Loam	common
<sup>1</sup> Type: C=Conc	entration, D=Depletion	on, RM=Re	educed Matrix, CS=	Covered or	Coated Sa	nd Grains.		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appli	icable to	all LRRs, unles	s otherw	ise noted	.)	Indica	ators for Problematic Hydric Soils <sup>3</sup> :
h	Histosol (A1)				Sandy Red	ox (S5)		2 cm Muck (A10)
t	Histic Epipedon (A2)				Stripped Ma	atrix (S6)		Red Parent Material (TF2)
E	Black Histic (A3)				Loamy Muc	ky Mineral (F1)	(except MLRA 1)	Other (explain in Remarks)
t	Hydrogen Sulfide (A4	)			Loamy Gley	ed Matrix (F2)		
	Depleted Below Dark	Surface (A	A11)		Depleted M	atrix (F3)		
	Thick Dark Surface (A	<b>A12</b> )		X	Redox Dark	Surface (F6)		
8	Sandy Mucky Mineral	l (S1)			Depleted Da	ark Surface (F7)		Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)			Redox Dep	ressions (F8)		problematic
Restrictive L	ayer (if present):	:						
Type:		N	one				1	
							1	
Depth (inches	):		00		-		Hydric Soil Pres	ent? Yes X No
Depth (inches	)				<u>-</u>		Hydric Soil Pres	ent? Yes X No
Depth (inches	)				<del>-</del>	<del></del>	Hydric Soil Pres	ent? Yes X No No
Depth (inches	)				<del>-</del> -		Hydric Soil Pres	ent? Yes X No No
Depth (inches	)						Hydric Soil Pres	ent? Yes X No
Depth (inches					_	1	Hydric Soil Pres	ent? Yes X No
Depth (inches Remarks  HYDROLO							Hydric Soil Pres	ent? Yes X No
Depth (inches) Remarks  HYDROLO Wetland Hyd	GY drology Indicator	·s:		hat apply)			Hydric Soil Pres	
Depth (inches Remarks HYDROLO Wetland Hyd Primary Indic	GΥ	·s:				ed Leaves (B9) (		Secondary Indicators (2 or more required)  Water stained Leaves (B9)
Depth (inches Remarks:  HYDROLO Wetland Hyd Primary India	GY drology Indicator cators (minimum o	s: f one req						Secondary Indicators (2 or more required)
Depth (inches) Remarks  HYDROLO Wetland Hyd Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1)	s: f one req			Water stain	d 4B)		Secondary Indicators (2 or more required)  Water stained Leaves (B9)
HYDROLOG Wetland Hyd Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2	s: f one req			Water stain 1, 2, 4A, an Salt Crust (	d 4B)	Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (MLRA1, 2, 4A, and 4B)
HYDROLO Wetland Hyo Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	s: of one req			Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve	d 4B) B11)	Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10)
HYDROLO Wetland Hyo Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	s: of one req			Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S	d 4B) B11) ertebrates (B13) sulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10)  Dry-Season Water Table (C2)
HYDROLO Wetland Hyd Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	rs: If one req		x	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	d 4B) B11) ertebrates (B13) sulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
HYDROLO Wetland Hyd Primary India X	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Orift Deposits (B3)	rs: If one req		x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invelopment  Hydrogen S  Oxidized Ri  Presence of	d 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres alon	Except MLRA  Ig Living Roots (C3) C4)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2)
Primary Indic	GY drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	rs:  of one req  (2)  (32)		x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invelopment  Hydrogen S  Oxidized Rh  Presence of  Recent Iron	d 4B) B11) ertebrates (B13) fulfide Odor (C1) nizospheres alon f Reduced Iron (6	Except MLRA  In Except MLRA  I	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
Depth (inches) Remarks:  HYDROLO Wetland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) ron Deposits (B5) Surface Soil Cracks (nundation Visible on	rs: If one req 2) 32) 4) B6) Aerial Ima	uired; check all ti	x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invo  Hydrogen S  Oxidized Ri  Presence of  Recent Iron  Stunted or S	d 4B) B11) ertebrates (B13) dulfide Odor (C1) nizospheres alon f Reduced Iron ( Reduction in Pla	Except MLRA  In Except MLRA  I	Secondary Indicators (2 or more required)  Water stained Leaves (B9)  (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
Depth (inches) Remarks  HYDROLO Wetland Hyd Primary India X	GY  drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) ron Deposits (B5) Surface Soil Cracks (	rs: If one req 2) 32) 4) B6) Aerial Ima	uired; check all ti	x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invo  Hydrogen S  Oxidized Ri  Presence of  Recent Iron  Stunted or S	ad 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres alon f Reduced Iron (i Reduction in Pla Stressed Plants	Except MLRA  In Except MLRA  I	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Depth (inches) Remarks:  HYDROLO Wetland Hyd  Primary Indic  X  S  I	GY  drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) ron Deposits (B5) Surface Soil Cracks (nundation Visible on Sparsely Vegetated C	rs: If one req 2) 32) 4) B6) Aerial Ima	uired; check all ti	x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invo  Hydrogen S  Oxidized Ri  Presence of  Recent Iron  Stunted or S	ad 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres alon f Reduced Iron (i Reduction in Pla Stressed Plants	Except MLRA  In Except MLRA  I	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) ron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated (Invations:	rs: If one req 2) 32) 4) B6) Aerial Ima	uired; check all ti	x	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invo  Hydrogen S  Oxidized Ri  Presence of  Recent Iron  Stunted or S	ad 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres alon f Reduced Iron (i Reduction in Pla Stressed Plants	Except MLRA  In Except MLRA  I	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indicates  X  Field Observ	GY  cators (minimum of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Fron Deposits (B5)  Surface Soil Cracks (Internation Visible on Sparsely Vegetated Covations:  Present? Yes	rs: If one req 2) 32) 4) B6) Aerial Ima	uired; check all th	X	Water stain  1, 2, 4A, an  Salt Crust (I  Aquatic Invo  Hydrogen S  Oxidized Ri  Presence of  Recent Iron  Stunted or S  Other (Expl.	ad 4B) B11) ertebrates (B13) sulfide Odor (C1) nizospheres alon f Reduced Iron (i Reduction in Pla Stressed Plants	Except MLRA  Ig Living Roots (C3) C4) Dowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)

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

None

Remarks:

_	u	0	44	
	n	S	#	

4796

Project/Site: LSI Property		City/County:	Gresh	am/Multnomah	Sampling Date:	7/1	5/2008
Applicant/Owner: Port of Portland				State:	OR	Sampling Point	21
Investigator(s). SE		Section, To	wnship, Range	Township 1	N/Range 3 East/S	ection 34C/TL	. 500
Landform (hillslope, terrace, etc.:)	Hillslope		Local relief (con	ncave, convex, none):	Slope	Slope (%):	<10%
Subregion (LRR):		Lat:	45°31'18.6	69" N Long:	122°25'29.78"W	Datum	
Soil Map Unit Name:	Aloha	silt loam		NWI Cla	ssification:	Upland	
Are climatic/hydrologic conditions on the site	typical for this tim	ne of year?	Yes	X No	(if no, expl	ain in Remarks)	
Are vegetation Soil or Hyd	drology	significantly dist	urbed?	Are "Normal Circumstance	es" present? (Y/N)	Yes	
				, explain any answers in Re			
SUMMARY OF FINDINGS - Atta	ch site map	showing sa	mpling poin	t locations, transec	ts, important fea	tures, etc.	
Hydrophytic Vegetation Present? Yes	X No		Is Sampled Are				
Hydric Soil Present? Yes	X No		a Wetlan			No X	
Welland Hydrology Present? Yes	No	Х					
Remarks:				······································	<del></del>		
Upslope of Wetland H. Vegetation in							
hydrology indicators were observed	. PHS's best p	rofessional	udgment is th	nat this area does not a	adequately meet v	vetland criteri	a.
VEGETATION - Use scientific na	mes of plant						
	absolute	Dominant	Indicator	Dominance Test wor	ksheet:		
Tree Stratum (plot size: 30 )	% cover	Species?	Status	Number of Descious Con-			
1 Crataegus sp.	40	x	NI	Number of Dominant Spec That are OBL, FACW, or I		1	(A)
	***************************************			That are Obc., FACVV, Oct	AC.		.(^)
3				Total Number of Dominan	t		
4	-			Species Across All Strata		1	(B)
	40 =	= Total Cover					
Sapling/Shrub Stratum (plot size:	)			Percent of Dominant Spec	ies		
1	-′			That are OBL, FACW, or		100%	(A/B)
2		*****					
3				Prevalence Index Wo	rksheet:		
4				Total % Cover of	Multiply by	<u></u>	
5				OBL Species	x 1 =	0	
	0 :	= Total Cover		FACW species	x 2 =	0	
Herb Stratum (plot size: 5 )				FAC Species FACU Species	x3=	0	
1 Hypochaeris radicata	10		FACU	UPL Species	x 4 = x 5 =	0	•
2 Prunella vulgaris	7		FACU	Column Totals	0 (A)	0	(B)
3 Trifolium repens	10		FAC		v 7		· · · ·
4 Trifolium pratense	2		FACU	Prevalence Index =	B/A = #	DIV/01	
5 Leontodon nudicaulis	3		UPL				
6 Plantago lanceolata	1		FAC	Hydrophytic Vegetati	on Indicators:		
7 Agrostis sp.	70	Х	(FAC)		Dominance Test is >50		
8					Prevalence Index is ≤		
	103 :	Total Cover			Morphological Adaptat		
Woody Vine Stratum (plot size:	)			1	dala in Remarks or on Wetland Non-Vascular	72	0)
1	-1				Problematic Hydrophy		xolain)
2							
	0 :	= Total Cover		Indicators of hydric soil ar	nd wetland hydrology	must be present.	unless
				disturbed or problematic.	,3,		
% Bare Ground in Herb Stratum				Hydrophytic			
176 Date Ground in Mero Stratum	n				Voc V	A1 -	
	0			Vegetation Present?	Yes X	No	

Profile Descr	iption: (Describe to I	the depth	needed to	docume	nt the Indica	ator or con	nfirm the abse	nce of indicators.)			
Depth	Matrix		******		Redox f	Features					
(Inches)	Color (moist)	<u>%</u>	Color	moist)	%	Type <sup>1</sup>	Loc²	Texture	Rem	arks	
0-5	10YR 3/2	100						Silt Loam			
5-17	10YR 4/2	90_	10YI	₹ 3/2	10	<u> </u>	M	Silt Loam	common		
	centration, D=Depletion								<sup>2</sup> Location: PL=Pore Lining		
Hydric Soil	Indicators: (Appl	icable to	all LRR	s, unles				Indica	ators for Problematic I		
	Histosol (A1)					andy Redo			2 cm Muck (		
	Histic Epipedon (A2)				415	tripped Mat				Material (TF2)	
	Black Histic (A3)					125 0		(except MLRA 1)	Other (explain	in in Remarks)	
	Hydrogen Sulfide (A4						ed Matrix (F2)				
	Depleted Below Dark		A11)			epleted Ma	187 180				
	Thick Dark Surface (A						Surface (F6)		Indicators of hydrophytic	vegetation and w	etland
	Sandy Mucky Minera					•	rk Surface (F7)		hydrology must be preser	nt, unless disturbe	
	Sandy Gleyed Matrix	(S4)			R	edox Depre	essions (F8)		problem	atic.	
Г <b>у</b> ре: Depth (inche			one			*		Hydric Soil Pres	sent? Yes X	No	
Type: Depth (inche			one			ě		Hydric Soil Pres	sent? Yes X	No	
Restrictive Type: Depth (inche Remarks:	s)	N	one					Hydric Soll Pres	sent? Yes X	No	
Type: Depth (inche Remarks:	s)	N	one					Hydric Soil Pres	sent? Yes X	No	
Type: Depth (inche Remarks  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum o	N.		eck all th					Secondary Indicators	(2 or more req	uired)
Type: Depth (inche Remarks  HYDROLO Wetland Hy	OGY /drology Indicator icators (minImum o Surface Water (A1)	No.		eck all th	w			Hydric Soil Pres	Secondary Indicators Water staine	(2 or more req d Leaves (B9)	uired)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY  rdrology Indicator icators (minImum o Surface Water (A1) High Water Table (A2)	No.		eck all th	W	, <b>2,</b> 4A, and	i 4B)		Secondary Indicators Water staine (MLRA1, 2,	(2 or more req d Leaves (B9) 4A, and 4B)	uired)
Type: Depth (inche Remarks  HYDROLO Wetland Hy	OGY /drology Indicator icators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	No.		eck all th	W 1, Sa	, <b>2, 4A</b> , and alt Crust (B	1 4B) 311)	(Except MLRA	Secondary Indicators  Water staine (MLRA1, 2,	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10)	
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	OGY /drology Indicator icators (minImum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	No.		eck all th	W 1, SaAd	, 2, 4A, and alt Crust (B quatic Inve	1 <b>4B)</b> 311) rtebrates (B13)	(Except MLRA	Secondary Indicators Water staine (MLRA1, 2, Drainage Pa	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10) Water Table (C2)	)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minImum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	No.		eck all th	W 1, Sa Ad	, 2, 4A, and alt Crust (B quatic Inve- ydrogen Su	d 4B) 311) rtebrates (B13) ulfide Odor (C1)	(Except MLRA	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10) Water Table (C2)	)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy	DGY /drology Indicator icators (minImum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	No.		eck all th		alt Crust (B quatic Inve ydrogen Su exidized Rhi	d 4B) 311) rtebrates (B13) ulfide Odor (C1)	(Except MLRA ) ng Living Roots (C3)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10) Water Table (C2) isible on Aerial In Position (D2)	)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	DGY /drology Indicator icators (minImum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	No.		eck all th	W 1, Si Ac	alt Crust (B quatic Inverydrogen Su xidized Rhi resence of	i 4B) ittebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron (	(Except MLRA ) ng Living Roots (C3)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10) Water Table (C2) isible on Aerial In Position (D2)	)
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	DGY /drology Indicator icators (minImum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B	No.		eck all th	W 1, Si Ai	alt Crust (B quatic Inve ydrogen Su xidized Rhi resence of ecent Iron I	i 4B) ittebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron (	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators Water staine (MLRA1, 2, Drainage Pa Dry-Season Saturation Vi Geomorphic Shallow Aqui	(2 or more required Leaves (B9) 4A, and 4B) ttems (B10) Water Table (C2) isible on Aerial In Position (D2)	) nagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	OGY /drology Indicator icators (minImum of Surface Water (A1)) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	No.  Ts:  If one req.  (2)  (32)  (4)	uired; ch	eck all th	W   1,   Si   Ai   H;   O:   Pr   Ri   Si   Si   Si   Si   Si   Si   Si	alt Crust (B quatic Inve- ydrogen Su xidized Rhi resence of ecent Iron I tunted or S	i 4B) st1) rtebrates (B13) ulfide Odor (C1) izospheres alor Reduced Iron ( Reduction in Pl	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic  Shallow Aqui  Fac-Neutral  Raised Ant M	(2 or more required by the second of the sec	) nagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	DGY /drology Indicator icators (minImum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B- Iron Deposits (B5) Surface Soil Cracks (	S:  If one required and serial limates and serial l	uired; ch		W   1,   Si   Ai   H;   O:   Pr   Ri   Si   Si   Si   Si   Si   Si   Si	alt Crust (B quatic Inve- ydrogen Su xidized Rhi resence of ecent Iron I tunted or S	d 4B)  If the brates (B13)  If	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic  Shallow Aqui  Fac-Neutral  Raised Ant M	(2 or more required Leaves (89) 4A, and 4B) ttems (810) Water Table (C2) isible on Aerial In Position (D2) itard (D3) Test (D5) Mounds (D6) (LRI	) nagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	DGY /drology Indicator icators (minImum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B-1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated C	S:  If one required and serial limates and serial l	uired; ch		W   1,   Si   Ai   H;   O:   Pr   Ri   Si   Si   Si   Si   Si   Si   Si	alt Crust (B quatic Inve- ydrogen Su xidized Rhi resence of ecent Iron I tunted or S	d 4B)  If the brates (B13)  If	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic  Shallow Aqui  Fac-Neutral  Raised Ant M	(2 or more required Leaves (89) 4A, and 4B) ttems (810) Water Table (C2) isible on Aerial In Position (D2) itard (D3) Test (D5) Mounds (D6) (LRI	) nagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	DGY rdrology Indicator icators (minimum of Surface Water (A1)) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Corvations:	S:  If one required and serial limates and serial l	uired; ch		W   1,   Si   Ai   H;   O:   Pr   Ri   Si   Si   Si   Si   Si   Si   Si	alt Crust (B quatic Inve- ydrogen Su exidized Rhi resence of ecent Iron I tunted or S	d 4B)  If the brates (B13)  If	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic  Shallow Aqui  Fac-Neutral  Raised Ant M	(2 or more required Leaves (89) 4A, and 4B) ttems (810) Water Table (C2) isible on Aerial In Position (D2) itard (D3) Test (D5) Mounds (D6) (LRI	) nagery (C
Type: Depth (inche Remarks:  HYDROLO Wetland Hy Primary Indi	OGY /drology Indicator icators (minImum of 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 Corvations: r Present? Yes ,	S:  If one required and serial limates and serial l	uired; ch gery (B7) urface (B8	)	W   1,	alt Crust (B quatic Inve- ydrogen Su ixidized Rhi resence of ecent Iron I tunted or S other (Expla	d 4B)  If the brates (B13)  If	(Except MLRA ) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators  Water staine (MLRA1, 2,  Drainage Pa  Dry-Season  Saturation Vi  Geomorphic  Shallow Aqui  Fac-Neutral  Raised Ant M	(2 or more required Leaves (89) 4A, and 4B) ttems (810) Water Table (C2) isible on Aerial In Position (D2) itard (D3) Test (D5) Mounds (D6) (LRI	) nagery (C

Remarks:

4796

Project/Site:	LSI Property		City/County:	Gresh	am/Multnomah	Sampling Date	6/1	8/2008
Applicant/Owner:	Port of Portland				State:	OR	Sampling Point:	22
Investigator(s)	AH		Section, To	wnship, Range:	Township 11	N/Range 3 East/Se	ction 34C/TL	500
Landform (hillslope, te	rrace, etc.:)	Hillslope		Local relief (con	cave, convex, none):	Slope	Slope (%)	<10%
Subregion (LRR):	Α		Lat:	45°31'18.6	69" N Long:	122°25'29.78"W	Datum:	
Soil Map Unit Name:		Aloha	silt loam		NWI Clas	sification:	PEMC	
Are climatic/hydrologic	conditions on the site	typical for this ti	me of year?	Yes	X No_	(if no, expla	in in Remarks)	
Are vegetation	Soil or H	/drology	significantly dist	urbed?	Are "Normal Circumstance	es" present? (Y/N)	Yes	
Are vegetation	Soil or H	drology	naturally probler	natic? If needed,	explain any answers in Ren	narks.)		
SUMMA DV OF F	INDINGS A44	ab aita mam	ahawina aa		4 la antiona Anomonat	- Imam - who was 6		
				mpling poin	t locations, transect	s, important real	ures, etc.	
Hydrophytic Vegetation				Is Sampled Are		ν .	1_	
Hydric Soil Present?	Yes _			a Wetlan	d? Yes_	X	lo	
Wetland Hydrology Pro	esent? Yes _	X No	-					e. w
Remarks: Within Wetland H.	Drainage pattern	s were ohsen	ed, and the w	etland is loca	ted at the toe of the mo	oderate sione helo	w the irrigati	on nond
Transit vocación de la constante de la constan	Drainingo pattorii		, una una una			sacrate Grope Sere	ir tilo irrigati	on pond.
VEGETATION - (	Use scientific n	ames of plan	nts.					
		absolute	Dominant	Indicator	Dominance Test work	sheet:		
		% cover	Species?	Status				
Tree Stratum (plot s	size: )				Number of Dominant Speci	ies		
					That are OBL, FACW, or F	AC:	4	(A)
3					Total Number of Dominant			(D)
4			= Total Cover		Species Across All Strata:		4	(B)
			- Total Cover					
Sapling/Shrub Stratum		_			Percent of Dominant Speci		000/	(A (D)
2					That are OBL, FACW, or F	-AC 1	00%	(A/B)
2					Prevalence Index Wor	rksheet:		
4					Total % Cover of	Multiply by:		
5					OBL Species	x 1 =	_ 0	
		0	= Total Cover		FACW species	x 2 =	0	
					FAC Species	x 3 =	0	
Herb Stratum (plot s		25	V	FAC	FACU Species	× 4 =	0	
2 Lotus cornicul		25	<u>x</u>	FAC	UPL Species  Column Totals	0 (A)	0	(D)
3 Trifolium repe		20		FAC		<b>0</b> (A)		(B)
4 Mowed grass		30	X	(FAC)	Prevalence Index =B	/A = #E	)IV/0!	
5 Equisetum arv	ense	3		FAC				
6 Hypochaeris ra	adicata	15		FACU	Hydrophytic Vegetation	on Indicators:		
7					XD	ominance Test is >50°	%	
8						revalence Index is ≤ 3.		
		113	= Total Cover			lorphological Adaptatio		
Woody Vine Stratum	(plot size:	)				ata in Remarks or on a Vetland Non-Vascular f		)
1	(p. 11 - 11 - 11 - 11 - 11 - 11 - 11 - 11	-'				roblematic Hydrophytic		xplain)
2							J (-	• 0.5500.
		0	= Total Cover		<sup>1</sup> Indicators of hydric soil an	d wetland hydrology m	ust be present,	unless
					disturbed or problematic.			
% Bare Ground in Her	h Stratum	0			Hydrophytic Vegetation	Yes X	No	
A Daile Ground III Hel	o onatum	<u> </u>			Present?	169		
Remarks:								

Sampling Point:

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22	b at 14	ne deput	needed to docume		cator or confirm	the absent	ce of indicators.)		
Depth	Matrix		0.1		Features	1 2 2	-		American street (American Street
(Inches)	Color (moist)		Color (moist)		Type <sup>1</sup>	Loc²	Texture	***************************************	Remarks
0-10	10YR 3/2	80	7.5YR 4/6	10			Silt Loam	commo	n
0-10			7.5YR 3/4	10			Silt Loam	commo	n
10-16	10YR 3/1	90	7.5YR 4/6	10			Silt Loam	commo	n
									10-11-71-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
-									
1								2	
	Indicators: (Appli					ains.	India		PL=Pore Lining, M=Matrix roblematic Hydric Soils <sup>3</sup> :
		cable to	an LINES, unies			5)	maic	aluis iui P	
	Histosol (A1)				Sandy Redox (S				_ 2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Matrix (				Red Parent Material (TF2)
	Black Histic (A3)				Loamy Mucky Mi		xcept MLRA 1)		Other (explain in Remarks)
	Hydrogen Sulfide (A4	)		ı	oamy Gleyed M	latrix (F2)			
	Depleted Below Dark	Surface (A	<b>A11)</b>		Depleted Matrix (	(F3)			
	Thick Dark Surface (A	112)		F	Redox Dark Surf	ace (F6)		3	
	Sandy Mucky Mineral	(S1)		X	Depleted Dark Si	urface (F7)			of hydrophytic vegetation and wetland must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)		F	Redox Depression	ons (F8)		,a.o.og,	problematic
Restrictive	Layer (if present):							****	
Type:			one						
Depth (inche	ne)			-	•		Hydric Soil Pres	ont? Vos	Y No
Remarks					•		riyunc 3011 Pres	Sent: 1es	X No
HYDROLO	OGY								
	drology Indicator	s.							
	icators (minimum o		uirad: abaak all th	act control				Sanada	
	Curdona Mater (A4)		uired; check all th		Mater steined Le	nuo (PO) (5	Event MI DA	Seconda	ry Indicators (2 or more required)
	Surface Water (A1)	f one req	uired; check all th	\	Water stained Le	3.5	Except MLRA	Seconda	Water stained Leaves (B9)
	High Water Table (A2	f one req	uired; check all th	\V_1	1, 2, 4A, and 4B	3.5	Except MLRA		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
	High Water Table (A2 Saturation (A3)	f one req	uired; check all th		1, 2, 4A, and 4B) Salt Crust (B11)	)	Except MLRA	Seconda	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)
	High Water Table (A2 Saturation (A3) Water Marks (B1)	f one req	uired; check all th		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr	) rates (B13)	Except MLRA		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	f one req	uired; check all th		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide	rates (B13) e Odor (C1)		x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C6)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	f one req )	uired; check all th		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp	rates (B13) e Odor (C1) oheres along	Living Roots (C3)		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C5)  Geomorphic Position (D2)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	f one req )	uired; check all th	- S	1, 2, 4A, and 4B, Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red	ates (B13) Codor (C1) Coheres alongued Iron (C	Living Roots (C3)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C6)  Geomorphic Position (D2)  Shallow Aquitard (D3)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	f one req ) (2)	uired; check all th		1, 2, 4A, and 4B, Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Dxidized Rhizosp Presence of Red Recent Iron Redu	rates (B13) c Odor (C1) oheres along uced Iron (C uction in Plo	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (6)	f one req ) (2)			1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	f one req ) (2) (4) (B6) Aerial Ima	gery (B7)		1, 2, 4A, and 4B, Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Dxidized Rhizosp Presence of Red Recent Iron Redu	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated C	f one req ) (2) (4) (B6) Aerial Ima	gery (B7)		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Field Obser	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Corvations:	f one req ) (2) (4) (B6) Aerial Ima	gery (B7)		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Corvations:	f one req ) (2) (4) (B6) Aerial Ima	gery (B7) urface (B8) No X		1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Field Obser	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 Corvations:	f one req ) (2) (4) (B6) Aerial Ima concave Si	gery (B7) urface (B8)	Legal No. 1	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6)	x	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cs Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Field Obser Surface Water	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 Corvations: In Present? Yes Present? Yes Present? Yes	f one req ) (2) (4) (B6) Aerial Ima concave Si	gery (B7) urface (B8) No X	Depth (i	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebr Hydrogen Sulfide Dxidized Rhizosp Presence of Red Recent Iron Red Stunted or Stress Other (Explain in	rates (B13) e Odor (C1) oheres along uced Iron (C uction in Plot sed Plants (D	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	x	Water stained Leaves (89) (MLRA1, 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)
Field Obser Surface Water Water Table P Saturation Pre (includes capillal	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 Corvations: In Present? Yes Present? Yes Present? Yes	f one req ) (2) (4) (B6) Aerial Ima	gery (B7) urface (B8)  NoX NoX NoX	Depth (i	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrity of the Consideration of Red Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	rates (B13) c Odor (C1) cheres along uced Iron (C uction in Plot sed Plants (I Remarks)	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	X X	Water stained Leaves (89) (MLRA1, 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)
Field Obser Surface Water Water Table P Saturation Pre (includes capillal	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (i Inundation Visible on Sparsely Vegetated C  rvations: r Present? Yes	f one req ) (2) (4) (B6) Aerial Ima	gery (B7) urface (B8)  NoX NoX NoX	Depth (i	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrity of the Consideration of Red Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	rates (B13) c Odor (C1) cheres along uced Iron (C uction in Plot sed Plants (I Remarks)	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	X X	Water stained Leaves (89) (MLRA1, 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)
Field Obser Surface Water Water Table P Saturation Pre (includes capitla) Describe Reco	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (i Inundation Visible on Sparsely Vegetated C  rvations: r Present? Yes	f one req ) (2) (4) (B6) Aerial Ima	gery (B7) urface (B8)  NoX NoX NoX	Depth (i	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrity of the Consideration of Red Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	rates (B13) c Odor (C1) cheres along uced Iron (C uction in Plot sed Plants (I Remarks)	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	X X	Water stained Leaves (89) (MLRA1, 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)
Field Obser Surface Water Water Table P Saturation Pre (includes capitla) Describe Reco	High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (i Inundation Visible on Sparsely Vegetated C  rvations: r Present? Yes	f one req ) (2) (4) (B6) Aerial Ima	gery (B7) urface (B8)  NoX NoX NoX	Depth (i	1, 2, 4A, and 4B Salt Crust (B11) Aquatic Invertebrity of the Consideration of Red Presence of Red Recent Iron Redu Stunted or Stress Other (Explain in	rates (B13) c Odor (C1) cheres along uced Iron (C uction in Plot sed Plants (I Remarks)	Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	X X	Water stained Leaves (89) (MLRA1, 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)

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# WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site:	LSI Property	···	City/County:	Gresh	am/Multnomah Sampling Date: 9/9/2008
Applicant/Owner Po	rt of Portland				State: OR Sampling Point: 23
Investigator(s)	АН		Section, To	wnship, Range:	Township 1N/Range 3 East/Section 34C/TL 500
Landform (hillslope, terrac	e, etc.:)	Hillslope		Local relief (cor	ncave, convex, none) Slope Slope (%) <15%
	Α		Lat	45°31'18.	
Soil Map Unit Name:			nt silt loam		NWI Classification: Upland
Are climatic/hydrologic co				Yes	
		•			
Are vegetation S		ydrology			Are "Normal Circumstances" present? (Y/N) Yes
Are vegetationS	oil or H	ydrology	naturally proble	matic? If needed	, explain any answers in Remarks )
SHMMARY OF FIN	DINGS - Att	ch site man	showing s	ampling poin	t locations, transects, important features, etc.
Hydrophytic Vegetation Pr		No		I Piling politi	tiodatoris, transcess, important reatures, etc.
	Yes			Is Sampled Ar	
Hydric Soil Present?	_			a Wetlar	Yes No X
Wetland Hydrology Preser	nt? Yes _	No	X		
Remarks:					
Adjacent to lower ch	annei reach.				
VEGETATION - Us	scientific n			ladia-t	Daminana Tasturakah - ti
		absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum (plot size	30 )	76 COVE	Species!	Status	Number of Dominant Species
1 Acer macrophyllu		35	х	FACU	That are OBL, FACW, or FAC 0 (A)
2					V.
3					Total Number of Dominant
4					Species Across All Strata 5 (B)
		35	= Total Cover	<del></del>	
Sapling/Shrub Stratum	(-1-4-i <b>E</b>				Personal of Personal Consider
1 Rubus discolor	piot size: 5	_ <sup>)</sup> 25	X	FACU	Percent of Dominant Species That are OBL, FACW, or FAC:  (A/B)
2 Rubus ursinus		15	X	FACU	That are OBL, FACW, OF FAC. (A/B)
3				- 1700	Prevalence Index Worksheet:
4					Total % Cover of Multiply by:
5					OBL Species x1= 0
		40	= Total Cover		FACW species x 2 = 0
					FAC Species x 3 = 0
Herb Stratum (plot size					FACU Species x 4 = 0
1 Equisetum arven	se	2		FAC	UPL Species x5 = 0
2 Prunus sp.		8	X	(FACU)	Column Totals (A) (B)
3 Tellima grandiflor	'a	5	X	UPL	
4					Prevalence Index =B/A = #DIV/0!
5					
6					Hydrophytic Vegetation Indicators:
7				<del></del>	Dominance Test is >50%
8			- T-1-10		Prevalence Index is ≤ 3.0¹
		15	= Total Cover		Morphological Adaptations <sup>1</sup> (provide supporting data in Remarks or on a separate sheet)
Woody Vine Stratum (P	lot size:	)			Wetland Non-Vascular Plants <sup>1</sup>
1		· ·			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
					- Carlotte C
2					h w v
2		0	= Total Cover		Indicators of hydric soil and wetland hydrology must be present, unless
2			= Total Cover		disturbed or problematic.
		0	= Total Cover		disturbed or problematic.  Hydrophytic
2 % Bare Ground in Herb S	ratum	0	= Total Cover		disturbed or problematic.

~	-		
•	e b	r	

Sampling Point:

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Profile Descrip	otion: (Describe to	the depth i	needed to docume	nt the indi	cator or cor	firm the absen	ce of indicators.)	
Depth	Matrix	***			Features			
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-11	10YR 3/3	100					Sift Loam	
11-20	10YR 3/3	85	10YR 5/6	15	C	M	Silt Loam	common/rocks in soil profile
								, , , , , , , , , , , , , , , , , , ,
					-			
1T C. C							·	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	entration, D=Deplet				10-1-1-1		India	ators for Problematic Hydric Soils <sup>3</sup> :
		icable to	all LKKS, ullies				muic	_
	Histosol (A1)				Sandy Redo			2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma			Red Parent Material (TF2)
	Black Histic (A3)					ky Mineral (F1) (	except MLRA 1)	Other (explain in Remarks)
<sup> </sup>	Hydrogen Sulfide (A4	1)			Loamy Gley	ed Matrix (F2)		
	Depleted Below Dark	Surface (A	(11)		Depleted Ma	atrix (F3)		
	Thick Dark Surface (	A12)		X	Redox Dark	Surface (F6)		Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera	l (S1)			Depleted Da	rk Surface (F7)		hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)			Redox Depr	essions (F8)		problematic.
Restrictive L	ayer (if present)	:						
Type:		N	one					
Depth (inches	):				-		Hydric Soil Pres	sent? Yes X No
Remarks:	<u> </u>						7	
Nemarks.								%:
HYDROLO	GY							
	drology Indicator	rs:						
Primary India	cators (minimum o	of one rea	uired: check all th	at aoply)				Secondary Indicators (2 or more required)
	Surface Water (A1)				a name and make an or	ed Leaves (B9) (	Except MLRA	Water stained Leaves (B9)
	High Water Table (A	2)			1, 2, 4A, an			(MLRA1, 2, 4A, and 4B)
	Saturation (A3)	-/			Salt Crust (E	311)		Drainage Patterns (B10)
	Water Marks (B1)				•	rtebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (I	32)			•	ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	/					g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B	4)				Reduced Iron (C	, ,	Shallow Aquitard (D3)
	ron Deposits (B5)					Reduction in Plo		Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)				tressed Plants (		Raised Ant Mounds (D6) (LRR A)
	nundation Visible on		gery (B7)			in in Remarks)	, no 2000 VED	Frost-Heave Hummocks (D7)
	Sparsely Vegetated							
Field Obser	vatione:						T	
			No. Y	Donth	(inaban):			
Surface Water			No X		(inches):			
Water Table Pr			No X		(inches):		vvetland Hyd	rology Present?
Saturation Pres (includes capillar			No X	Depth	(inches):			Yes NoX
Describe Reco	rded Data (stream g	auge, moni	toring well, aerial ph	otos, previ	ous inspecti	ons), if available		
None								
								,
Remarks:								
1								

4796

# WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site LSI Property	City/County:	Gresham/Mu	ltnomah	Sampling Date:	9/9/2	8008
Applicant/Owner: Port of Portland			State: C	OR S	Sampling Point:	24
Investigator(s): AH	Section, 7	ownship, Range	Township 1N/F	Range 3 East/Sec	ction 34C/TL 5	00
Landform (hillslope, terrace, etc.)	Hillslope	Local relief (concave, co	onvex, none):	Slope	Slope (%):	<15%
Subregion (LRR):		45°31'18.69" N	Long: 1	22°25'29.78"W		
Soil Map Unit Name	Wollent silt loam	·		cation:	PFOC	
Are climatic/hydrologic conditions on the site		Yes X	-	(if no, explain		
Are vegetation Soil or Hy			lormal Circumstances"		•	
					163	
Are vegetation Soil or Hy	drologynaturally probl	ematic? if needed, explain	any answers in Remar	KS.)		
SUMMARY OF FINDINGS - Atta	ach site map showing s	ampling point loca	tions, transects,	important feat	ures, etc.	
Hydrophytic Vegetation Present? Yes					·····	
	X No	Is Sampled Area with	n Yes	N	o X	
-	X No	a Wetland?				
Remarks: This area is below the OHWL of a si	mall stream, and does no	meet the criteria for v	vetland vegetation	: however it sho	uld be conside	ered a waters
of the US/State.	man on oam, and dood no			,	a.a bo ooo.a.	orou a maioro
VEGETATION - Use scientific na	ames of plants	<del></del>				
VEGETATION - 030 3010Hallo He	absolute Dominant	Indicator Domi	nance Test worksh	neet:		
	% cover Species?	Status		and the second s		
Tree Stratum (plot size: 30 )		Numbe	er of Dominant Species			
1 Alnus rubra	X	FAC That a	e OBL, FACW, or FAC	:	3 (/	A)
2 Acer macrophyllum	15X	FACU				
3 Fraxinus latifolia	X	FACW Total N	lumber of Dominant			
4		Specie	s Across All Strata:		6 (8	3)
	= Toial Cover					
Sapling/Shrub Stratum (plot size: 5	)	Percer	t of Dominant Species			
1 Rubus discolor	10X	FACU That a	e OBL, FACW, or FAC	5:5	<b>0%</b> (A	VB)
2 Rubus ursinus	X	FACU				
3		Preva	lence Index Works	sheet:		
4		Total 9	6 Cover of	Multiply by:	-	
5			DBL Species	×1=	0	
	30 = Total Cover	1	ACW species	×2= ×3=	0	
Herb Stratum (plot size: 5 )			AC Species ACU Species	x =		
1 Urtica dioica	20		JPL Species	x5=		
2 Equisetum arvense	75 X		olumn Totals	0 (A)	0 (B	)
3 Athyrium filix-femina	3	FAC			,	
4 Epilobium watsonii	5	FACW	revalence Index =B/A	=#D	IV/01	
5 Geum macrophyllum	3	FACW				
6		Hydro	phytic Vegetation	Indicators:		
7			Dom	ninance Test is >50%	0	
8				ratence Index is ≤ 3.0	-	
	106 = Total Cover			ohological Adaptation		orting
Mandy Vino Christian Inlet size	1			in Remarks or on a and Non-Vascular P		
Woody Vine Stratum (plot size:	-'			olematic Hydrophytic		lain)
2			F10L	memade riyuropiiytic	vegetation (EXP	ioiii)
4	0 = Total Cover		tors of hydric soil and w	retland hydrology mi	ust be present up	less
	- Total Cover		ed or problematic.		so, bo present, th	.000
	_	Hydro	phytic			•
% Bare Ground in Herb Stratum	0	Hydro	phytic ation	Yes	No_	X

SOIL			PHS#	4	796			Sampling Po	oint:	24
Profile Descri	ption: (Describe to	the depth	needed to docume	nt the Ind	lcator or co	nfirm the absen	ce of indicators.)			
Depth	Matrix				x Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc2	Texture	Re	emarks	
0-3	7.5YR 3/2	100					Silt Loam			
3-20	10YR 3/2	90	10YR 4/6	10		M	Silty Clay Loam			
								···		
								-		
*			_ == =		100 (0)					
¹Type, C=Con	centration, D=Depleti	on, RM=R	educed Matrix, CS=	Covered o	or Coated Sar	nd Grains		<sup>2</sup> Location: PL=Pore Lini	ng, M≃Matrix	
	Indicators: (Appl	-					Indica	ators for Problematic		ls³:
•	Histosol (A1)				Sandy Redo			2 cm Muc	k (A10)	
	Histic Epipedon (A2)				Stripped Ma				nt Material (TF2	2)
	Black Histic (A3)				-	ky Mineral (F1) (	except MLRA 1)		plain in Remark	
	Hydrogen Sulfide (A4	1)			-	ed Matrix (F2)	Mattheward → the factor allows a roots on the set of t			-,
	Depleted Below Dark		A11)		Depleted Ma					
	Thick Dark Surface (		,	x	•	Surface (F6)				
	Sandy Mucky Minera				_	ark Surface (F7)		Indicators of hydrophyti		
	Sandy Gleyed Matrix				- Company	essions (F8)		hydrology must be pres	sent, unless dis ematic	turbed or
					- Redox Bept		T	proon	Sindio.	
	Layer (if present)									
Type:		N	one				1			
Depth (inches	5):				_		Hydric Soil Pres	sent? Yes X	No	
HYDROLO	GY drology Indicator	re·								
-	1000		uired de ale all	ant name	N.			Cocondon, Indicator	ro (2) or moro	roquirod)
	cators (minimum o	of one req	uired; check all ti	ат арріу		ed Leaves (B9) (	Event MI DA	Secondary Indicator		
	Surface Water (A1)	2)			1, 2, 4A, an	The second	Except mena		ined Leaves (B	
	High Water Table (A: Saturation (A3)	2)			Salt Crust (E			X Drainage	Patterns (B10)	
	Water Marks (B1)					ertebrates (B13)			on Water Table	
	Sediment Deposits (I	B2)			•	ulfide Odor (C1)			Visible on Aer	
	Drift Deposits (B3)	,			-		g Living Roots (C3)		hic Position (D2	
	Algal Mat or Crust (B	4)			-	Reduced fron (0			quitard (D3)	•
	Iron Deposits (B5)	,,,			Recent Iron	Reduction in Plo	owed Soils (C6)	Fac-Neutr	ral Test (D5)	
	Surface Soil Cracks	(B6)			Stunted or S	Stressed Plants (	(D1) (LRR A)	Raised An	nt Mounds (D6)	(LRR A)
	Inundation Visible on	Aerial Ima	igery (B7)	X	Other (Expla	ain in Remarks)		Frost-Hea	ve Hummocks	(D7)
	Sparsely Vegetated	Concave S	urface (B8)		-					
Field Obser	vations:						T			
Surface Water			No X	Depth	(inches):		1			
Water Table P	resent? Yes		No X		(inches):		Wetland Hyd	rology Present?		
Saturation Pre			No X	-	(inches).			Yes X	No	
	orded Data (stream g	auge, mon	toring well, aerial ph	notos, prev	vious inspecti	ons), if available				
.10.10										
Remarks:					· · · · · · · · · · · · · · · · · · ·					
							× ×			
Surface sat	uration observed	in this a	rea on July 15.	2008. Si	urrace satu	ration was of	oserved approxin	nately 10 feet from th	ns data poir	it, in the

main stream channel, on September 9, 2008.

_	22	_	6000
0	и	c	-44
_	п	J	77

	ARIES	DETERMINE	LACITAL	DATA	CODIA	1014	88	1/-11		0	D
WEIL	AND	DETERMIN	NATION	DAIA	FUKIVI .	- vvestern	Mountains,	vallevs	. and	Coast	Region

P	Project/Site: LS! Property	City/Cour	nty: Gresi	nam/Multnomah	Sampling Date:	9/9/2	2008
A	Applicant/Owner: Port of Portland			State: 0	OR Sar	mpling Point:	25
lr	nvestigator(s): AH	Section	n, Township, Range	Township 1N/R	ange 3 East/Secti	ion 34C/TL 5	500
L	andform (hillslope, terrace, etc.:)	Hillslope	Local relief (co	ncave, convex, none)	Slope	Slope (%):	<5%
s	Subregion (LRR):	L	at: 45°31'18	69" N Long: 1	22°25'29.78"W	Datum:	
S	Soil Map Unit Name:		1	NWI Classific	cation:	Upland	
A	Are climatic/hydrologic conditions on the site	typical for this time of year?	Yes	X No	(if no, explain i	in Remarks)	
Α	Are vegetation Soil or Hy	drology significantly	y disturbed?	Are "Normal Circumstances" p	present? (Y/N)	Yes	
A	Are vegetation Soil or Hy	drology naturally pr	roblematic? If needed	I, explain any answers in Remark	(s.)		
I,	SUMMARY OF FINDINGS – Atta	sch site man showin	a camplina poi	at locations transports i	important fastuu	ron oto	
		No X	y sampling pon	it locations, transects, i	inportant leatur	es, etc.	
HL.	Hydric Soil Present? Yes	No X	Is Sampled A		No	x	
ๆ.	Vetland Hydrology Present? Yes	No X	a Wetla	nd? 165			
					*		
m r	Remarks: ocated between two channel segm	ents in a steeper-slope	ed area.				
"	•	•					
1	VEGETATION - Use scientific na	mes of plants.					<del></del>
JΓ		absolute Dominar	nt Indicator	Dominance Test worksho	eet:	· · · · · · · · · · · · · · · · · · ·	······································
		% cover Species	? Status				
41	Tree Stratum (plot size: 30 )			Number of Dominant Species			
	1 Thuja plicata	60 X	FAC	That are OBL, FACW, or FAC:	3	(/	4)
- 1	2 Acer macrophyllum	X	FACU	Total Number of Deminent		2	
H.	4			Total Number of Dominant Species Across All Strata:	6	,,,	В)
		80 = Total Co	ver	Species Across Air Strata.			5)
	Capling/Charle Ctroture (11		• • • • • • • • • • • • • • • • • • • •				
88.	Sapling/Shrub Stratum (plot size: 5  1 Rubus ursinus	_ <sup>)</sup> 50 X	FACU	Percent of Dominant Species That are OBL, FACW, or FAC	509	o/. (.	4/B)
и.	2 Rubus spectabilis	30 X	FAC	matale Obc, FACW, OF FAC	. 30	/6 (/	~vo)
- 1	3			Prevalence Index Works	heet:		
Ш	4			Total % Cover of	Multiply by:		
1	5			OBL Species	x 1 =	0	
		= Total Co	ver	FACW species	x 2 =	0	
П.	Herh Stratum (plot size: 5 )			FAC Species	× 3 =	0	
1	derb Stratum	10 X	FACU	FACU Species UPL Species	×4= ×5=	0	
ı	2 Athyrium filix-femina	5 X	FAC		0 (A) -	<b>0</b> (E	3)
	3						,
	4			Prevalence Index =B/A =	#DIV	//0!	
	5						
1	6			Hydrophytic Vegetation I	Indicators:	-	
	7			the state of the s	inance Test is >50%		
П	8				alence Index is ≤ 3.01	1	
1		15 = Total Co	ver	The state of the s	hological Adaptations in Remarks or on a se		oorting
l v	Noody Vine Stratum (plot size	)		1	in Remarks or on a se and Non-Vascular Pla		
-	1	•			lematic Hydrophytic V		olain)
1	2						
1		0 = Total Co	ver	<sup>1</sup> Indicators of hydric soil and we	etland hydrology mus	t be present, ur	nless
				disturbed or problematic.			
9	% Bare Ground in Herb Stratum	0		Hydrophytic Vegetation	Yes	No.	X
L				Present?			
F	Remarks:						

SOIL			PHS#	4796	-		Sampling Point: 25
Profile Descrip	tion: (Describe to t	he depth r	needed to docume	nt the indicator or c	onfirm the abser	nce of Indicators.)	
Depth	Matrix		***	Redox Features	. 2	_	No. 00
(Inches)	Color (moist)		Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-20	10YR 3/3	100				Silt Loam	cobble present
127-201							
				Covered or Coated S			<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appli	icable to	all LRRs, unles	s otherwise noted	1.)	Indica	ators for Problematic Hydric Soils <sup>3</sup> :
Н	istosol (A1)			Sandy Red	dox (S5)		2 cm Muck (A10)
H	listic Epipedon (A2)			Stripped M	latrix (S6)		Red Parent Material (TF2)
В.	lack Histic (A3)			Loamy Mu	cky Mineral (F1)	(except MLRA 1)	Other (explain in Remarks)
н	ydrogen Sulfide (A4	)		Loamy Gle	eyed Matrix (F2)		
D	epleted Below Dark	Surface (A	.1t)	Depleted N	//atrix (F3)		
Т	hick Dark Surface (A	<b>112</b> )		Redox Da	k Surface (F6)		
s	andy Mucky Mineral	I (S1)		Depleted 0	Dark Surface (F7)		Indicators of hydrophytic vegetation and wetland
s	andy Gleyed Matrix	(S4)		Redox De	pressions (F8)		hydrology must be present, unless disturbed or problematic.
	ayer (if present):					T	
	ayer (ii present)						
Type: Depth (inches)		No	one	<del></del>		Hydric Soil Pres	
UVDBOL O	2						
HYDROLOG							
Mottand Hud		o:					
Wetland Hyd							
Primary Indica	ators (minimum o		uired; check all ti				Secondary Indicators (2 or more required)
Primary Indica		f one requ	uired; check all t		ned Leaves (B9) ( nd 4B)	(Except MLRA	Secondary Indicators (2 or more required)  Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Primary Indica	ators (minimum o urface Water (A1)	f one requ	uired; check all t	Water stai	nd 4B)	(Except MLRA	Water stained Leaves (B9)
Primary Indica S H	ators (minimum o urface Water (A1) igh Water Table (A2	f one requ	uired; check all ti	Water stain 1, 2, 4A, a Salt Crust	nd 4B)		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Primary Indica S H S	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3)	f one requ	uired; check all t	Water stail 1, 2, 4A, a Salt Crust Aquatic In	nd <b>4B)</b> (B11)		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)
Primary Indica S H S W	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1)	f one requ	uired; check all t	Water stai 1, 2, 4A, a Salt Crust Aquatic In	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1)		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)
Primary Indica S H S W S	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (E	f one requ	uired; check all ti	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1)	ng Living Roots (C3)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (
Primary Indica S H S W S D	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B rift Deposits (B3)	f one requ	uired; check all ti	Water stain 1, 2, 4A, a Salt Crust Aquatic Interpretation Hydrogen Oxidized F Presence	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon	ng Living Roots (C3)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)
Primary Indica S H S W S D	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B rift Deposits (B3)	f one requ 2) 32) 4)	uired; check all t	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence of  Recent Iro	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (	ng Living Roots (C3) C4) owed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)
Primary Indica S H S W S D A In	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B4 on Deposits (B5)	f one requ 2) 32) 4) B6)		Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in Reduction in Pla	ng Living Roots (C3) C4) owed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)
Primary Indica S H S W S D A In	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B4 on Deposits (B5) urface Soil Cracks (	f one requests  32)  4)  B6)  Aerial Imag	gery (B7)	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Pla Stressed Plants	ng Living Roots (C3) C4) owed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Primary Indica S H S W S D A In	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B4 on Deposits (B5) urface Soil Cracks ( aundation Visible on parsely Vegetated C	f one requests  32)  4)  B6)  Aerial Imag	gery (B7)	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Pla Stressed Plants	ng Living Roots (C3) C4) owed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Primary Indica S H S W S D A In S	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B4) on Deposits (B5) urface Soil Cracks ( aundation Visible on parsely Vegetated Cations:	f one requests  32)  4)  B6)  Aerial Imag	gery (B7)	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Pla Stressed Plants	ng Living Roots (C3) C4) owed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Primary Indicates S S S S A In S In S Field Observ Surface Water F	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B- on Deposits (B5) urface Soil Cracks ( nundation Visible on parsely Vegetated Ca ations:	f one requests  32)  4)  B6)  Aerial Imag	gery (B7) urface (B8)	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or  Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Pla Stressed Plants	ng Living Roots (C3) C4) pwed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Primary Indica  S  H  S  W  S  In  S  Field Observ  Surface Water F  Water Table Pres  Saturation Prese	ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) Vater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B3) Igal Mat or Crust (B5) urface Soil Cracks (inundation Visible on parsely Vegetated Cations: Present? Yes esent? Yes	f one requests  32)  4)  B6)  Aerial Imag	gery (B7) urface (B8) NoX	Water stai  1, 2, 4A, a  Salt Crust  Aquatic Int  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or  Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Pla Stressed Plants	ng Living Roots (C3) C4) pwed Soils (C6) (D1) (LRR A)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indica  S  H  S  W  S  D  A  In  S  Field Observ  Surface Water F  Water Table Prese  (includes capillary	ators (minimum of urface Water (A1) aigh Water Table (A2) aturation (A3) Vater Marks (B1) ediment Deposits (B3) algal Mat or Crust (B4) on Deposits (B5) urface Soil Cracks (Minimum Visible on parsely Vegetated Cations:  Present? Yes asent? Yes ant? Yes fringe)	f one requests  32)  4)  B6)  Aerial Image Concave Su	pery (B7) uface (B8)  No	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or  Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Plo Stressed Plants ( Idain in Remarks)	g Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)  Wetland Hydi	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Primary Indica  S  H  S  W  S  D  A  In  S  Field Observ  Surface Water F  Water Table Pres  Saturation Press  (includes capillary  Describe Record	ators (minimum of urface Water (A1) aigh Water Table (A2) aturation (A3) Vater Marks (B1) ediment Deposits (B3) algal Mat or Crust (B4) on Deposits (B5) urface Soil Cracks (Minimum Visible on parsely Vegetated Cations:  Present? Yes asent? Yes ant? Yes fringe)	f one requests  32)  4)  B6)  Aerial Image Concave Su	pery (B7) uface (B8)  No	Water stai  1, 2, 4A, a  Salt Crust  Aquatic In  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or  Other (Exp  Depth (inches):  Depth (inches):	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres alon of Reduced Iron (in n Reduction in Plo Stressed Plants ( Idain in Remarks)	g Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)  Wetland Hydi	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery ( Geomorphic Position (D2)  Shallow Aquitard (D3)  Fac-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)

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### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: LSI Property	City/County:	Gresham/Multnomah	Sampling Date.	9/9/2008	
Applicant/Owner: Port of Portland		Sta	e: OR Sampling	Point 26	
Investigator(s) AH	Section, To	nship, Range Townshi	1N/Range 3 East/Section 3	4C/TL 500	
Landform (hillslope, terrace, etc.:)	Hillslope	Local relief (concave, convex, none):	Slope Slop	oe (%) <5%	
Subregion (LRR):	Lat	45°31'18.69" N Lor	g: <b>122°25'29.78"W</b>	Datum:	
Soil Map Unit Name:	Latourell loam	NWI	Classification: P	SSC	
Are climatic/hydrologic conditions on the site	1	Yes X	lo (if no, explain in Ren	narks)	
Are vegetation Soil or Hy	drology significantly dist	bed? Are "Normal Circumst	ances" present? (Y/N) Y	es	
Are vegetation Soil or Hy	drology naturally problem	atic? If needed, explain any answers in	Remarks.)		
SUMMARY OF FINDINGS - Atta	ich site map showing sa	npling point locations, trans	ects, important features,	etc.	
Hydrophytic Vegetation Present? Yes	X No	is Sampled Area within			
Hydric Soil Present? Yes	X No	a Wetland?	es X No	<del></del>	
Wetland Hydrology Present? Yes	X No				
Remarks:					
Within a shallow drainageway					
VEGETATION - Use scientific na		In			
	absolute Dominant % cover Species?	Indicator Dominance Test was	orksheet:		
Tree Stratum (plot size: 30 )	% cover _ Species :	Number of Dominant S	necies		
1		That are OBL, FACW,	•	(A)	
2					
3		Total Number of Domi	nant		
4		Species Across All Str	ata: 3	(B)	
	0 = Total Cover				
Sapling/Shrub Stratum (plot size: 5'	)	Percent of Dominant S	pecies		
1 Rubus spectabilis	5X	FAC That are OBL, FACW,	or FAC: 67%	(A/B)	
2					
3		Prevalence Index	Worksheet:		
4		Total % Cover of	Multiply by:		
5		OBL Species		0	
	5 = Total Cover	FACW species FAC Species		0	
Herb Stratum (plot size. 5' )		FACU Species		0	
1 Hydrophyllum tenuipes	15 X	NI UPL Species	x 5 =	0	
2 Athyrium filix-femina	5 X	FAC Column Totals	0 (A)	0 (B)	
3					
4		Prevalence Inde	c=B/A = #DIV/0!		
5					
6		Hydrophytic Vege			
7			Dominance Test is >50%  Prevalence Index is ≤ 3.01		
8	20 = Total Cover		Morphological Adaptations¹ (pro	vide supporting	
	- rotal Cover		data in Remarks or on a separat		
Woody Vine Stratum (plot size:	)	A: 1 AW	Wetland Non-Vascular Plants <sup>1</sup>	•	
1			Problematic Hydrophytic Vegeta	tion <sup>1</sup> (Explain)	
2					
	0 = Total Cover	•	il and wetland hydrology must be p	resent, unless	
		disturbed or problemat  Hydrophytic	IC,		
% Bare Ground in Herb Stratum	75	Vegetation	Yes X	No	
		Present?			
Remarks:					

			PHS#	4	796			Sampling Point:	26
	iption: (Describe to t	he depth r	needed to docume			firm the abser	nce of Indicators.)		
Depth	Matrix				x Features	12	-		
(Inches)	Calor (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture	Remarks	
0-11	10YR 2/2	90	10YR 5/8	10		M	Silt Loam	common/fine cobbles througho	ut soil
								profile	
T I									
	-								
					-				
								1	
	centration, D=Depletion	-						<sup>2</sup> Location PL=Pore Lining, M=Matrix	3
Hydric Soil	Indicators: (Appli	icable to	all LRRs, unles	s otherw			Indica	ators for Problematic Hydric Soils	<b>":</b>
	Histosol (A1)				Sandy Redo			2 cm Muck (A10)	
	Histic Epipedon (A2)				Stripped Mat			Red Parent Material (TF2)	
	Black Histic (A3)				-		(except MLRA 1)	Other (explain in Remarks)	
	Hydrogen Sulfide (A4					ed Matrix (F2)			
	Depleted Below Dark		(11)		Depleted Ma	10 E			
	Thick Dark Surface (A			X	0	Surface (F6)		<sup>3</sup> Indicators of hydrophytic vegetation and	wetland
T	Sandy Mucky Mineral					rk Surface (F7)		hydrology must be present, unless distu	
	Sandy Gleyed Matrix  Layer (if present):				Redox Depre	essions (Fo)		problematic	
Depth (inche	s):		one		-		Hydric Soil Pres	ent? Yes X No	
Type: Depth (inche Remarks	s):				-		Hydric Soil Pres	eent? Yes X No	
Depth (inche Remarks	OGY						Hydric Soil Pres	sent? Yes X No	
Depth (inche Remarks		s:			-		Hydric Soil Pres	sent? Yes X No	
Depth (inche Remarks: HYDROLO Wetland Hy	OGY			nat apply				Secondary Indicators (2 or more re	equired)
Depth (inche Remarks: HYDROLO Wetland Hy	OGY vdrology Indicators icators (minimum of Surface Water (A1)	f one requ		nat apply	Water staine	d Leaves (B9) (		Secondary Indicators (2 or more re Water stained Leaves (B9)	
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	OGY /drology Indicator: icators (minimum of Surface Water (A1) High Water Table (A2	f one requ		nat apply	Water staine 1, 2, 4A, and	1 4B)		Secondary Indicators (2 or more reward Leaves (B9) (MLRA1, 2, 4A, and 4B)	
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	OGY /drology Indicators icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3)	f one requ		nat apply	Water staine 1, 2, 4A, and Salt Crust (B	1 4B) 111)	(Except MLRA	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10)	,
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	OGY /drology Indicators icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	f one requ		nat apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve	1 4B) 111) rtebrates (B13)	Except MLRA	Secondary Indicators (2 or more re Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (C	C2)
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	OGY /drology Indicator: icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	f one requ		nat apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invented Hydrogen Su	14B) 111) rtebrates (B13) ulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (Construction Visible on Aerial	C2)
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	DGY /drology Indicators icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	f one requ		nat apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inverted Hydrogen Su Oxidized Rhi	14B) 111) rtebrates (B13) ulfide Odor (C1)	(Except MLRA	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (Construction Visible on Aerial Construction Visible on Aerial Construction (D2)	C2)
Depth (inche Remarks  HYDROLO  Wetland Hy  Primary Indi	OGY /drology Indicator: icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	f one requ		nat apply	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inveit Hydrogen St Oxidized Rhi Presence of	1 4B) Interprete (B13)	(Except MLRA	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (Construction Visible on Aerial	C2)
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HYDROLO Wetland Hy Primary Indi X  Field Obset	DGY /drology Indicators icators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C rvations: r Present? Yes esent? Yes	f one requests  2)  32)  4)  B6)  Aerial Image Concave Su	gery (B7) urface (B8)	Depth	Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inverted Hydrogen State Country Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Explainment)	it 4B) ittl) itebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (ite Reduction in Ple tressed Plants (iten in Remarks)	Except MLRA  Ing Living Roots (C3) C4) Dowed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more rewards Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)  X Drainage Patterns (B10) Dry-Season Water Table (Control Saturation Visible on Aerial Control Saturation (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (Long Frost-Heave Hummocks (D6)	C2) Imagery (C9)

D. SELL

# Appendix C

Site Photographs (ground level)



Photo A

Photo was taken looking west at Wetlands A and B

### Photo B

Photo was taken looking southeast at Ditch 2.



Project # 4796 5/13/11

Photo documentation of the LSI site in Gresham, Oregon. Both photos were taken on April 13, 2011.





Photo C

Photo taken looking northeast at Wetland G (Pond).

### Photo D

Photo was taken looking northeast at Wetland H.



Project # 4796 5/13/11

Photo documentation of the LSI site in Gresham, Oregon. Top photo was taken on July 15, 2008; bottom photo on April 13, 2011.





Photo E

Photo taken looking northwest at Wetland F and Pond (Wetland G)

### Photo F

Photo taken looking south at the stream within the woods east of the Pond.



Project # 4796 5/13/11

Photo documentation of the LSI site in Gresham, Oregon. Top photo was taken on April 13, 2011; bottom photo taken on July 15, 2008.



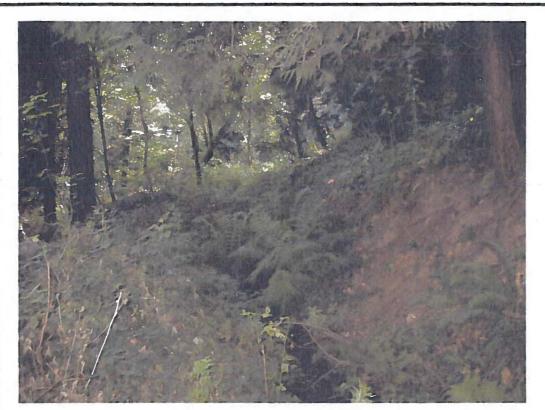


Photo G

Photo was taken looking east at the stream near data point 26.

### Photo H

Photo was taken looking north at the stream, north of data point 25.



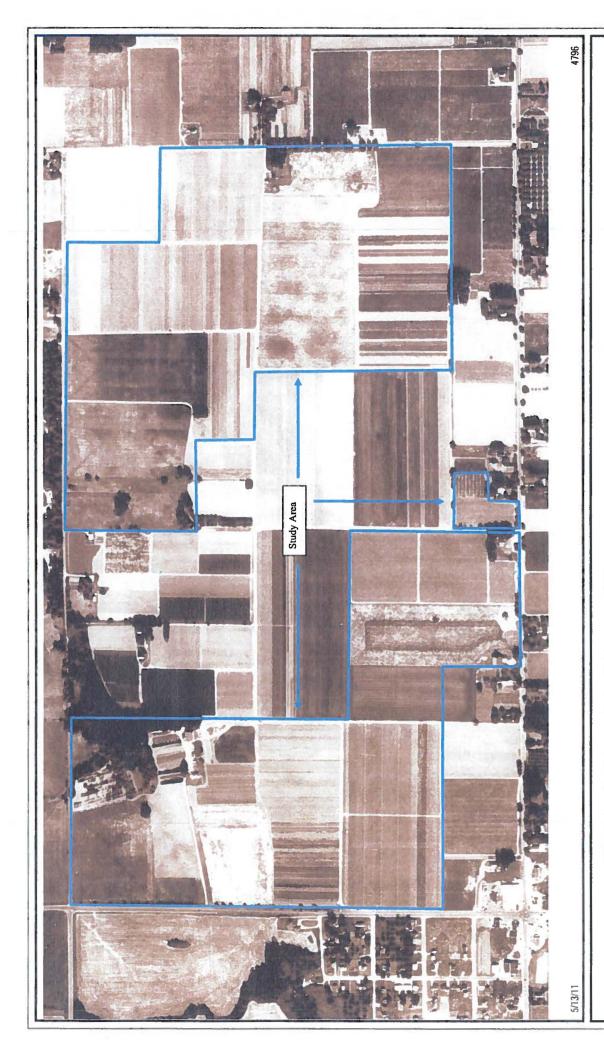
Project # 4796 5/13/11

Photo documentation of the LSI site in Gresham, Oregon. Photos taken on September 9, 2008.



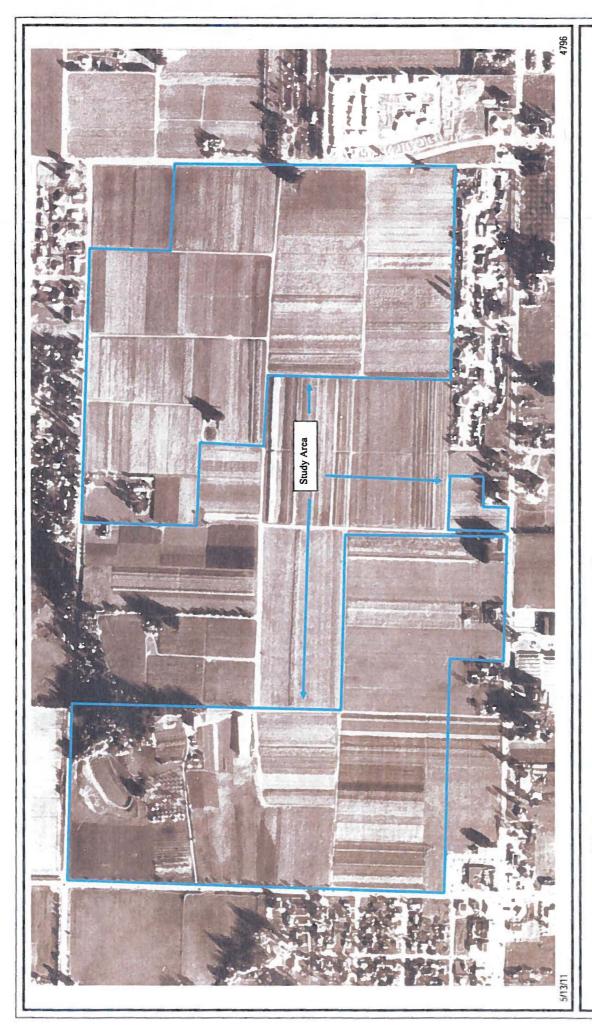
# Appendix D

**Historic Aerial Photographs** 



1955 aerial photo of the LSI Property in Gresham, OR (photo courtesy of COE).





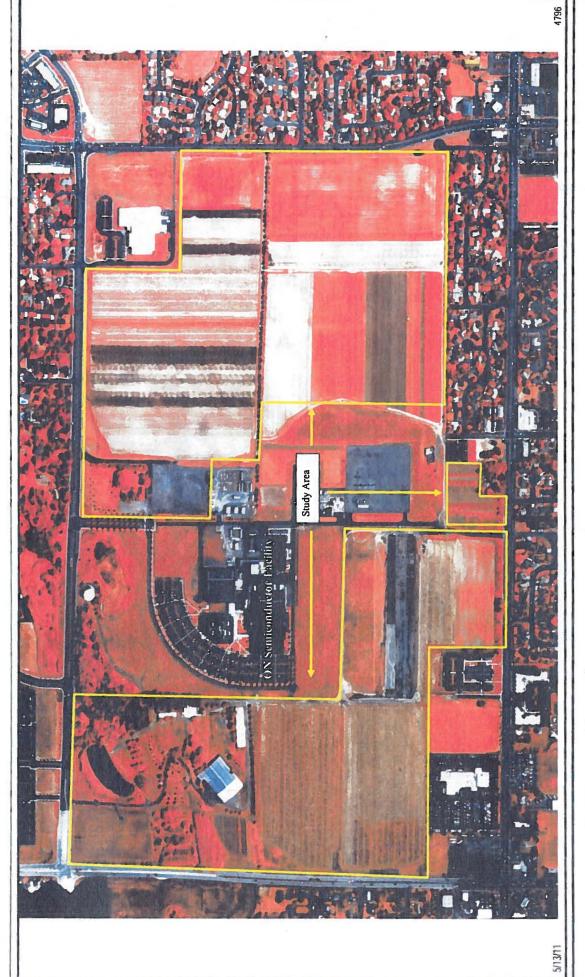
1972 aerial photo of the LSI Property in Gresham, OR (photo courtesy of COE).





1989 aerial photo of the LSI Property in Gresham. OR (photo courtesy of COE).





2004 aerial photo of the LSI Property in Gresham, OR (photo courtesy of COE).



# Appendix E

Wetland Definitions and Methodology and References

# WATERS OF THE STATE AND WETLAND DEFINITION AND CRITERIA

### Regulatory Jurisdiction

Wetlands and water resources in Oregon are regulated by the Oregon Department of State Lands (DSL) under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (COE) through Section 404 of the Clean Water Act.

The primary source documents for wetland delineations within Oregon include the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, (Version 2.0) which are recognized by both DSL and COE. Although the Interim Regional Supplement (2008) was in effect at the time of the initial fieldwork, the relatively minor changes between versions have not materially affected our methodology.

### Waters of the State and Wetland Definition

Waters of the State are defined as "natural waterways including all tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and nonnavigable...". "Natural waterways" is further defined as waterways created naturally by geological and hydrological processes, waterways that would be natural but for human-caused disturbances (e.g. channelized or culverted streams, impounded waters, partially drained wetlands or ponds created in wetlands)..."(DSL, 2001).

Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (DSL 2001).

#### **Wetland Criteria**

Based on the above definition, three major factors characterize a wetland: hydrology, substrate, and biota.

#### Wetland Hydrology

Wetland hydrology is related to duration of saturation, frequency of saturation, and critical depth of saturation. The 1987 manual defines wetland hydrology as inundation or saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The wetland hydrology criterion can be met, however, if saturation within the major portion of the root zone is present for only 5% of the growing season, depending on other evidence.

The growing season is defined as the portion of the year when soil temperatures at 12.0 inches below the soil surface are higher than biological zero (41 degrees Fahrenheit, 5 degrees Celsius), but also allows approximation from frost free days, based on air temperature. The growing season for any given site or location is determined from US Natural Resources Conservation Service, (formerly Soil Conservation Service) data and information.

Wetland hydrologic indicators include the following: visual observation of inundation or saturation, watermarks, drift lines, sediment deposits, and/or oxidized rhizospheres with living roots. Oxidized rhizospheres are defined as yellowish-red zones around the roots and rhizomes of some plants that grow in frequently saturated soils. Other indicators of hydrology, including algal mats or crust, iron deposits, surface soil cracks, sparsely vegetated concave surface, salt crust, aquatic invertebrates, hydrogen sulfide odor, reduced iron, iron reduction in tilled soils, and stunted or stressed plants can also be used to determine the presence of wetland hydrology.

#### Wetland Substrate (Soils)

Most wetlands are characterized by hydric soils. Hydric soils are those that are ponded, flooded, or saturated for long enough during the growing season to develop anaerobic conditions. Periodic saturation of soils causes alternation of reduced and oxidized conditions, which leads to the formation of redoximorphic features (gleying and mottling). Mineral hydric soils will be either gleyed or will have bright mottles and/or low matrix chroma. The redoximorphic feature known as gley is a result of greatly reduced soil conditions, which result in a characteristic grayish, bluish or greenish soil color. The term mottling is used to describe areas of contrasting color within a soil matrix. The soil matrix is the portion of the soil layer that has the predominant color. Soils that have brightly colored mottles and a low matrix chroma are indicative of a fluctuating water table.

Hydric soil indicators include: organic content of greater than 50% by volume, and/or presence of redoximorphic features and dark soil matrix, as determined by the use of a Munsell Soil Color Chart. This chart establishes the chroma, value and hue of soils based on comparison with color chips. Mineral hydric soil must meet one of the 16 definitions for hydric soil indicators, or be classified as a "problem soil" in the Interim Regional Supplement.

### Wetland Biota (Vegetation)

Wetland biota is defined as hydrophytic vegetation. A hydrophyte is a plant species that is capable of growing in substrates that are periodically deficient in oxygen as a result of saturated soil conditions. The U.S. Fish and Wildlife Service, in the *National List of Plant Species that Occur in Wetlands*, has established five basic groups of vegetation based on their frequency of occurrence in wetlands. These categories, referred to as the "wetland indicator status", are as follows: obligate wetland plants (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and obligate upland (UPL). Table 1 gives a definition of the plant indicator codes.

 Table 1.
 Description of Wetland Plant Indicator Status Codes

Indicator Code	Status
OBL	Obligate wetland. Estimated to occur almost exclusively in wetlands (>99%)
FACW	Facultative wetland. Estimated to occur 67-99% of the time in wetlands.
FAC	Facultative. Occur equally in wetlands and non-wetlands (34-66%).
FACU	Facultative upland. Usually occur in non-wetlands (67-99%).
UPL	Obligate upland. Estimated to occur almost exclusively in non-wetlands (>99%). If a species is not assigned to one of the four groups described above it is assumed to be obligate upland.
NI	Has not yet received a wetland indicator status, but is probably not obligate upland.

Observations of hydrology, soils, and vegetation, were made using the "Routine On-site" delineation method as defined in the 1987 manual and the Interim Regional Supplement for areas that were not currently in agricultural production. One-foot diameter soil pits were excavated to 20 inches and soil profiles were examined for hydric soil and wetland hydrology field indicators. In addition, a visual absolute-cover estimate of the dominant species of the plant community was performed using soil pit locations as a center of reference. Dominant plant species are based on estimates of absolute cover for herbaceous, and shrub species within a 5 foot radius of the sample point, and basal area cover for tree and woody vine species within a 30 foot radius of the sample point. Plant species in each vegetative layer, which are estimated at less than 20% of the total cover, are not considered to be dominant. The wetland indicator status is then used to determine if there is an overall dominance (greater than 50%) of wetland or upland plant species. If less than 50% of the dominant species are hydrophytic, then the prevalence index may be used to determine if the subdominant species are hydrophytic. If the prevalence index is less than or equal to 3, hydrophytic vegetation criterion is met.

During data collection, the soil profiles were examined for hydric soil and wetland hydrology field indicators. Plant species and cover were recorded. Data was recorded on standard data sheets which contain the information specified in the 1987 Corps Manual and the Interim Regional Supplement.