



WETLAND DELINEATION REPORT  
WEST HILLS DEVELOPMENT: CRESCENT GROVE PROPERTY

**Prepared for**

West Hills Development  
735 Southwest 158th Avenue  
Beaverton, Oregon 97006

**Prepared by**

Anchor QEA, LLC  
6650 Southwest Redwood Lane, Suite 333  
Portland, Oregon 97224

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## TABLE OF CONTENTS

1	INTRODUCTION .....	1
2	LANDSCAPE SETTING AND LAND USE.....	2
2.1	Existing Conditions .....	2
2.1.1	Site Location .....	2
2.1.2	Current Site Description .....	2
2.1.3	Surrounding Land Use.....	2
2.2	Existing Data Review .....	3
2.2.1	National Wetland Inventory .....	3
2.2.2	Local Wetland Inventory .....	3
2.2.3	Soil Survey Information .....	3
2.2.4	Historical Aerial Photographs .....	4
2.3	Land Use .....	5
3	SITE ALTERATIONS .....	6
4	PRECIPITATION DATA AND ANALYSIS.....	8
5	DELINEATION METHODS.....	10
6	WETLANDS AND NON-WETLAND OTHER WATERS .....	11
6.1	Wetland A – PFO/PSS/PEM Wetland .....	11
6.1.1	Vegetation.....	12
6.1.2	Soils .....	12
6.1.3	Hydrology .....	13
6.1.4	Boundary Determination .....	14
6.2	Wetlands C, D, and E – PEM East Farmed Wetlands.....	14
	Vegetation.....	15
6.2.1	Soils .....	15
6.2.2	Hydrology .....	16
6.2.3	Boundary Determination .....	17
6.3	Wetland B – PEM West Farmed Wetland.....	17
6.3.1	Vegetation.....	18
6.3.2	Soils .....	18

6.3.3	Hydrology .....	19
6.3.4	Boundary Determination .....	19
6.4	Non-wetland Other Waters.....	19
<b>7</b>	<b>DEVIATION FROM LOCAL WETLAND INVENTORY OR NATIONAL WETLAND INVENTORY .....</b>	<b>21</b>
<b>8</b>	<b>MAPPING METHOD .....</b>	<b>22</b>
<b>9</b>	<b>ADDITIONAL INFORMATION.....</b>	<b>23</b>
<b>10</b>	<b>RESULTS AND CONCLUSIONS .....</b>	<b>24</b>
<b>11</b>	<b>DISCLAIMER.....</b>	<b>25</b>
<b>12</b>	<b>REFERENCES .....</b>	<b>26</b>

### List of Tables

Table 1	Soils Mapped on the Study Areas by the Washington County Soil Survey .....	4
Table 2	Precipitation Data for the Site Visits .....	8
Table 3	Percent of Normal Rainfall for the Water Year for Each Site Visit.....	9
Table 4	Monthly Percent of Normal Precipitation for the 3 Months Prior to Site Visits.....	9
Table 5	Potential Wetlands and Non-wetland Other Waters Delineated on the Project Site .....	11
Table 6	Comparative Acreages Draft LWI and Field Verification .....	21

### List of Figures

Figure 1	Site Location Map
Figure 2	2013 Aerial Site Overview
Figure 3	Tax Lot Map
Figure 4	Topography Map
Figure 5	National Wetlands Inventory Map
Figure 6	Local Wetlands Inventory Map
Figure 7	Soils Map
Figure 8	Wetland Delineation Map and Photo Locations/Directions Map

**List of Appendices**

- Appendix A Site Photographs
- Appendix B Historic Aerial Photographs
- Appendix C Drain Tile Diagram
- Appendix D Weather Data
- Appendix E Wetland Delineation Data Sheets

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## LIST OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
FAC	Facultative
FACW	Facultative Wetland
HGM	hydrogeomorphic classification system
HUC	hydrologic unit code
LWI	Local Wetland Inventory
NAVD 88	North American Vertical Datum of 1988
NRCS	Natural Resources Conservation Service
OAR	Oregon Administrative Rule
PEM	palustrine emergent
PFO	palustrine forested
project site	Crescent Grove Project
PSS	palustrine scrub-shrub
SCMAA	South Cooper Mountain Annexation Area
USACE	U.S. Army Corps of Engineers
WETS Table	NRCS Climate Analysis for Wetlands

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## 1 INTRODUCTION

Anchor QEA, LLC, was retained by West Hills Development to perform a routine-level wetland delineation for a proposed residential housing development on the parcel referred to as the Crescent Grove Project (project site) in Unincorporated Washington County (Figures 1 through 3). Specific location information for the project site is as follows:

<b>City/County/State:</b>	Beaverton, Washington County, Oregon
<b>General Location:</b>	North of the intersection of Scholl's Ferry Road and 175th Ave.
<b>Tax Lot:</b>	2S1060000200
<b>Latitude/Longitude:</b>	45.4305433 / 122.853830
<b>PLSS:</b>	Section 6 T2S R1W
<b>Street Address:</b>	No street address; lot is agricultural
<b>Approximate Area:</b>	54.85 acres
<b>Zoning:</b>	AF-20
<b>Waterways:</b>	Small unnamed drainage on the eastern boundary of the tax lot

This Wetland Delineation Report presents the results of several visits to conduct wetland delineation fieldwork performed for the project site on September 6, 2013, October 24, 27, 28, November 4, 17, 2014, and January 13, 26, 27, 2015, and describes existing site conditions at the time of each site visit and discusses results of the field investigations. Supporting information is provided in the following appendices:

- Appendix A: Site Photographs
- Appendix B: Historical Aerial Photographs
- Appendix C: Drain Tile Diagram
- Appendix D: Weather Data
- Appendix E: Wetland Delineation Data Sheets

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## **2 LANDSCAPE SETTING AND LAND USE**

The project site is situated in the Prairie Terraces sub-region of the Willamette Valley ecoregion (Thorson et al. 2003) and located in the foothills of the Tualatin Mountains. The site is bounded to the west by SW 175th Avenue and to the south by SW Scholls Ferry Road and is within the City of Beaverton urban growth boundary South Cooper Mountain interim annexation area. The site slopes moderately from north (at approximately 430 feet North American Vertical Datum of 1988 [NAVD 88]) to south (at approximately 320 NAVD 88 feet; USGS 2011). There is a rise in elevation along the northern central portion of the site, creating a hydrologic divide (Figure 4), so that the northwest portion of the site is in the Rock Creek sub-watershed (hydrologic unit code [HUC] 170900100503) of the Tualatin River sub-basin of the Willamette River Basin and remainder of the site is in the Fanno Creek sub-watershed (HUC 170900100503; Oregon State University 2015).

### **2.1 Existing Conditions**

#### **2.1.1 Site Location**

The site is located immediately north of Scholls Ferry Road on the east side of 175th Avenue, terminating approximately 475 feet south of SW Alvord Lane to the north. It is approximately 675 linear feet due west of residential housing developments that are also within the City of Beaverton urban growth boundary. The land between has been recently logged and is undeveloped.

#### **2.1.2 Current Site Description**

Currently, the project site is actively managed and used for agricultural crop production. There are no structures or residences within the site boundary. Site photographs are included in Appendix A.

#### **2.1.3 Surrounding Land Use**

Land use surrounding the project site is a mixture of rural residential, agricultural, and urban residential housing developments.

## **2.2 Existing Data Review**

Potential wetlands and other non-wetland waters were identified on the project site using the following sources:

- The 2014 online U.S. Fish and Wildlife Service National Wetland Inventory Wetland Mapper
- South Cooper Mountain Annexation Area Draft Local Wetland Inventory (LWI)
- Aerial photographs obtained from the U.S. Army Corps of Engineers (USACE; Appendix B)
- Google Earth Satellite Imagery (Timeline Function)

### **2.2.1 National Wetland Inventory**

No wetlands are mapped or delineated on the National Wetland Inventory (Figure 5).

### **2.2.2 Local Wetland Inventory**

According to the draft LWI prepared in December of 2013 for the South Cooper Mountain Annexation Area (Figure 6; SCMAA), one probable agricultural wetland (PW-F) and one palustrine scrub-shrub (PSS)/emergent (PEM) wetland (W-H) were identified on the project site (DEA 2013).

### **2.2.3 Soil Survey Information**

Soils on the project site are predominantly non-hydric with the exception of Delena silt loam 3 to 12% slopes covering approximately 11 acres. Table 1 summarizes the hydrologic and hydric characteristics of the soils on site, and Figure 7 depicts the soils as mapped by the Natural Resources Conservation Service (NRCS).

**Table 1**  
**Soils Mapped on the Study Areas by the Washington County Soil Survey**

Map Unit	Soil Unit Name	Drainage Class	Hydrologic Soil Group <sup>1</sup>	Percentage of Hydric Components	Acres
7B	Cascade silt loam, 3 to 7% slopes	Somewhat poorly drained	C	5	3.2
7C	Cascade silt loam, 7 to 12% slopes	Somewhat poorly drained	C	5	16.2
11B	Cornelius and Kinton silt loams, 2 to 7% slopes	Moderately well drained	C	4	19.4
11C	Cornelius and Kinton silt loams, 7 to 12% slopes	Moderately well drained	C	4	7.5
11D	Cornelius and Kinton silt loams, 12 to 20% slopes	Moderately well drained	C	4	18.4
16C	Delena silt loam, 3 to 12% slopes	Poorly drained	D	90	11.3

Notes:

Data were obtained from the online Web Soil Survey (NRCS 2014a) and confirmed using the Soil Survey of Washington County, Oregon.

1. Group C Soils have a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D Soils have a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission. (NRCS 2014b).

2. Percentages are aggregated cumulative percentages of all components of a soil map unit where the corresponding hydric rating of each individual component is hydric.

### **2.2.4 Historical Aerial Photographs**

Historic aerial photographs obtained from USACE (Appendix B) show that the majority of the project site was cleared and in use for agricultural purposes at the time of the earliest available photograph (1936). The exception is the northeast portion of the site, which is separated from the majority of the site by a small drainage. This area was logged at some point between 1940 and 1963, and attempts at using it for agriculture appear to have been unsuccessful; the area has been unmanaged since at least 1977. Other USACE photographs (1977 and 1983) and Google Earth images through 2014 show that land use has continued to be agricultural for the majority of the site and unmanaged in the northeast portion to the present.

### **2.3 Land Use**

As indicated by current and historical aerial photographs and confirmed through site visits, land use was historically, and continues to be, primarily agricultural for the majority of the site, and the northeast portion is currently unmanaged.

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### 3 SITE ALTERATIONS

Major site alterations (clearing, grading, grubbing) for the agricultural portion were completed prior to the time of the first photograph of record: 1936. In 1936, there appears to have been a residence and small tree plantation in the southeast corner of the site. It remains visible in 1940 but is absent in the 1963 photograph. Refinements in land use continued from 1940 until approximately 1963, by which time the configuration of the current plow lines, agricultural layout, and drainage ditches is observable. In the 1963 photograph, the construction of drainage features separating the unfarmed hillside on the northeast corner of the site from the main cultivated agricultural fields first becomes apparent. Prior to this time, there seems to be a natural drainage feature in this area that was deepened and confined. The final location and route of this drainage feature is clearly evident in the 1977 and 1983 photographs.

Additionally, there were some drainage ditches identified on the 1936 and 1940 photographs near the current southwest property line that were straightened and routed around fields for agricultural purposes prior to the 1936 photograph. These ditches were re-routed and straightened to align with the current west property line in an exact north-south direction, as shown in the 1963 photograph. An off-site ditch to the east was also re-aligned and extended to meet with the re-aligned north-south drainage ditch at the western property line, as shown on the 1963 photograph. The previously mentioned “natural” drainage feature flows into this newly aligned drainage ditch further north on the west property line. This drainage configuration appears to have remained from that point on with flow from north to south.

There has also been substantial drain tile installed in the agricultural portion of the site. Historically, clay tiling has been installed in numerous places around the site as evidenced by pieces of clay tile observed throughout the site. A functioning clay tile line was observed on the southeast corner of the site (Drain tile #1, Figure 8). A hole was dug in this location where a wooden survey stake was set in the ground. The tile line was encountered at a depth of approximately 3 feet below ground surface (bgs). The exact location where this tile line discharges was not discovered, as it continues in a southeasterly direction off site.

In addition to the clay tile, 13,119 linear feet of black corrugated tile tubing was installed in two areas in 2008. A map of the drain tile installation was provided by the installer (Appendix C) and the locations of the drain tile correspond with previously unexplained lines on the 2009 aerial photograph. The majority of the tile was placed in the south eastern portion of the site, where there appears to have been hydrology in past aerial photographs. A smaller amount of tubing was installed adjacent to 175th Avenue on the northwest side of the field (Appendix C). The outlet to the eastern drain field was observed during the site visits and verified (Hostetler 2015). It appears to be functional as evidenced by water flowing out of the outlet during the site visits. The drain tiles were also digitized onto the wetland delineation figure (Figure 8).

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#### 4 PRECIPITATION DATA AND ANALYSIS

To provide additional information on the hydrologic conditions of the project site, precipitation data were acquired from the National Weather Service's Hillsboro, Oregon, Weather Station (National Weather Service 2015; Appendix D) at the time of site visits, 1 day prior to site visits, and 2 weeks prior to each site visit (Table 2). Table 3 shows the percent of normal rainfall received for the water year (October 1 to September 30) at the Portland weather station at the time of each site visit. Table 4 provides a determination of whether the precipitation recorded for each of the 3 months preceding site visits is within the 30th to 70th percentile normal range listed in the Natural Resources Conservation Service Wetlands Determinations (WETS) Table for Beaverton SSW Weather Forecasting Station (NRCS 2002; Appendix D).

**Table 2**  
**Precipitation Data for the Site Visits**

<b>Date of Site Visit</b>	<b>Precipitation (inches)<sup>1</sup></b>	<b>Date Range Two Weeks Prior to Site Visit</b>	<b>Precipitation (inches)<sup>1</sup></b>
10/24/2014	0.16	10/10 – 10/23/2014	3.53
10/27/2014	T	10/13 – 10/26/2014	3.97
10/28/2014	0.27	10/14 – 10/27/2014	3.96
11/04/2014	0.16	10/21 – 11/3/2014	4.77
11/17/2014	0.00	11/3 – 11/16/2014	0.77
1/13/2015	0.00	12/30/2014 – 1/12/2015	0.27
1/26/2015	0.00	1/12 – 1/25/2015	2.68
1/27/2015	0.02	1/13 – 1/26/2015	2.67

Notes:

1. National Weather Service's Hillsboro, Oregon, weather station (2015).

T = trace

**Table 3**  
**Percent of Normal Rainfall for the Water Year for Each Site Visit**

Date of Site Visit	Current Water Year (inches) <sup>1</sup>	Normal Value for Water Year (inches) <sup>1</sup>	Departure from Normal (inches)	Percent of Normal
10/24/2014	3.69	2.07	1.62	178%
10/27/2014	4.19	2.44	1.75	171%
10/28/2014	4.19	2.57	1.62	163%
11/04/2014	6.58	3.62	2.92	182%
11/17/2014	7.09	6.69	0.40	106%
1/13/2015	15.10	19.27	-4.17	78%
1/26/2015	17.77	21.67	-3.90	82%
1/27/2015	17.79	21.83	-4.04	82%

Note:

1. National Weather Service's Portland, Oregon, Airport weather station (2015; Appendix D)

**Table 4**  
**Monthly Percent of Normal Precipitation for the 3 Months Prior to Site Visits**

Month	Actual Monthly Precipitation (inches) <sup>1</sup>	30th to 70th Percentile Normal Range (inches) <sup>2</sup>	30th to 70th Percentile Normal Range Comparison
July 2014	0.52	0.27 to 0.84	Normal
August 2014	0.14	0.22 to 0.98	Below
September 2014	1.10	0.70 to 2.03	Normal
October 2014	6.12	1.52 to 3.57	Above
November 2014	2.83	4.08 to 7.25	Below
December 2014	5.88	4.42 to 7.64	Normal

Notes:

1. National Weather Service's Hillsboro, Oregon, Weather Station Monthly Reports (2015)  
<http://www.nws.noaa.gov/climate/index.php?wfo=pqr>.
2. Natural Resources Conservation Service WETS Table; WETS Station Beaverton 2 SSW, OR0595 (NRCS 2015)  
<http://agacis.rcc-acis.org/41067/wets>.

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## 5 DELINEATION METHODS

Anchor QEA wetland scientists performed wetland delineation fieldwork on October 24, 27, and 28, November 4, 2014, and January 13, 26, and 27, 2015 in accordance with the methods presented in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Regional Supplement, Version 2.0; USACE 2010), the *U.S. Army Corps of Engineers Wetland Delineation Manual* (USACE 1987), and the Oregon Administrative Rules (OAR) 141-090-0005 to 141-090-0055.

## 6 WETLANDS AND NON-WETLAND OTHER WATERS

The individual characteristics and acreages of wetlands and non-wetland waters found on-site are summarized in Table 5 and described beginning in Section 6.1. Wetland delineation field data sheets are contained in Appendix E. The delineated boundaries of on-site wetlands and associated features are shown in Figure 8.

**Table 5**  
**Potential Wetlands and Non-wetland Other Waters Delineated on the Project Site**

Wetlands and Non-wetland Other Waters	Description	Classification		On-site Area (acres)
		(Cowardin 1979)	HGM (Adamus 2001)	
Wetland A	PFO/PSS/PEM mosaic wetland	PFO/PSS/PEM	Slope/flats	2.34
Wetland B	Farmed wetland	PEM	Slope/flats	0.17
Wetland C	Farmed wetland	PEM	Slope/flats	0.17
Wetland D	Farmed wetland	PEM	Slope/flats	0.02
Wetland E	Farmed wetland	PEM	Slope/flats	0.05
Drainage feature	Channelized creek	n/a	n/a	0.01
<b>Total area of wetlands (acres)</b>				<b>2.77</b>

Notes:

HGM = hydrogeomorphic classification system

n/a = not applicable

PEM = palustrine emergent

PFO = Palustrine forested

PSS = palustrine scrub-shrub

### 6.1 Wetland A – PFO/PSS/PEM Wetland

The largest wetland on site, identified by Anchor QEA, is Wetland A, a 2.34-acre mixture of palustrine forested (PFO)/PSS/PEM wetland associated with the narrow drainage channel at the toeslope of the hillside flowing from north to south along the eastern boundary of the project site. The eastern boundary of Wetland A is variable and dependent on changes in soils, vegetation, hydrology, and topography of the adjacent hillside. The western wetland boundary of Wetland A is abrupt for the southern two-thirds of its length due to the slightly incised nature of the drainage channel. Along the northernmost portion of the wetland

boundary, the drainage shifts to the east and the wetland widens into a triangular shape. The western edge is the edge of the agricultural field.

Generally, the wetland complex is composed of PFO areas tightly linked to the drainage feature (i.e., riparian zone) with PSS areas bounding the outer edges of the riparian zone. Intermixed within the scrub-shrub areas and continuing upslope to the east in places away from the drainage feature, there are PEM portions of wetland that are grass and forb dominated. The northernmost, triangular portion of the wetland is a grass dominated PEM wetland.

### **6.1.1 Vegetation**

The northernmost triangular portion of this wetland is a PEM wetland composed of grass species; quackgrass (*Agropyron repens*; Facultative [FAC]), meadow foxtail (*Alopecurus pratensis*; FAC), tall fescue (*Festuca arundinacea*; FAC), red fescue (*Festuca rubra*; FAC), and bentgrasses (*Agrostis* sp.) with forested and scrub shrub areas along the margin. The shape is dictated by two small drainages that converge and continue in a southerly direction. In the primary forested area, which is limited to a narrow 3 to 4 meter riparian zone adjacent to the drainage, Oregon ash (*Fraxinus latifolia*; Facultative Wetland [FACW]) is the dominant species with various age class recruitment spreading upslope to the east in places; willows (*Salix* sp.) and western crabapple (*Malus fusca*; FACW) are also present to a lesser degree and scattered throughout. The understory is poorly developed with high percentages of bare ground. The PSS portions of this wetland are dominated by common hawthorn (*Crataegus monogyna*; FAC), roses (*Rosa nutkana* [FAC] and *eglantaria* [FACW]) and Douglas spirea (*Spirea douglasii*; FACW) with Oregon ash saplings also present.

### **6.1.2 Soils**

Soils along the eastern boundary displayed wide variability. Typically, the adjacent upland soils had 2% or less redox features in the matrix to twelve inches of depth. Hue was either 7.5 YR or 10 YR and values ranged from 3 to 5 with chroma varying from 2 to 4 in various combinations. Wetland soils showed a marked increase of redox concentrations ranging from 2 to 20% within the matrix. Matrix hue characteristics were consistent with the upland

plots (7.5 YR and 10 YR), but chroma was lower in the wetland plots (2 or less). Soil was frequently saturated around 8 inches bgs.

Wetland soils along the western wetland boundary typically had a matrix that was very dark gray lightening to dark gray (10 YR 3/1 to 10YR 4/1). Matrices contained consistent mid-value high chroma concentrations red to yellow red in color (2.5YR and 5YR and either 4/8 or 5/8). Hydric soil indicators that were used to determine wetland soils were either Redox Dark Surface or Depleted Below Dark Surface.

In contrast, soils sampled in the western upland agricultural field had a uniform matrix profile with no redox features to a minimum of 16 inches in depth. Soils were very dark grayish brown (10 YR 3/2).

### **6.1.3 Hydrology**

As discussed in the site alterations section, the hydrology of the site has been manipulated by drainage ditches, old clay drain tiling, and recent installation of plastic drain tile in two historically wet areas. Over the years, the clay drain tile appears to have been moderately successful in managing on-site hydrology for crop production with the most recent installation of modern drain tile providing the greatest hydrologic manipulation (i.e., the greatest removal of water from the agricultural field).

Along the western wetland boundary, hydrology is managed by drainage ditches and drain tile and hydrology indicators are absent in most of the agricultural field. Within the wetland boundary, the following hydrology indicators were present: surface water in the drainage, soil saturation, and high water table (visible within test pits during the 30 minutes pits were left open).

Along the eastern wetland boundary that is associated with the toe of the slope of the eastern hillside, no surface water, water table, or saturation was observed, and the wetland hydrology determination was determined by the presence or absence of oxidized rhizospheres along living roots.

#### **6.1.4 Boundary Determination**

The western wetland boundary is determined by the edge of the drainage for the majority of the length of the project site. The drainage is approximately 1 to 3 feet lower in elevation than the agricultural field, due to years of continued plowing resulting in soil migration downslope over time and subsequent building up of a higher elevation, which in turn prevents the development of any lateral migration in the drainage channel and causes down cutting into the channel bed. The drainage feature is maintained and incised, and receives water from agricultural drain tile from across the site. Starting at the north, the wetland is triangular shaped within approximately 100 yards of the northern property boundary. In this portion of this wetland, the incised drainage feature splits with one section along the western edge and one section along the eastern edge. There is a section along the western edge where the drainage feature is piped. The wetland in this area flattens into a grass dominated emergent wetland. Also along the western border of the wetland, a fence runs along the edge of the agricultural field. At this location, conditions shift abruptly from emergent wetland to agriculture along the fence line. This section of piped drainage is short and starts at approximately the northern property line, runs along the western wetland edge, and ends at the base of the triangular wetland where it daylights and empties into the incised drainage running along the eastern portion of this area. From this point, the combined incised drainage corresponds to the western wetland boundary moving southward.

East of the drainage feature, along the length of the wetland associated with the eastern slope, the boundary was determined by absence of hydric soil characteristics and the presence or absence of oxidized rhizospheres along living roots.

#### **6.2 Wetlands C, D, and E – PEM East Farmed Wetlands**

This area contains three small depressional wetlands (Wetlands C, D, and E) in close proximity along the east boundary of the project site at the toe of the agriculture field slope and adjacent to a probable wetland area off site to the east. All of these wetlands share common characteristics and are therefore described together in this section. The northernmost wetland (Wetland C) is a 0.17-acre PEM wetland and associated with the drainage channel flowing from north to south along the eastern boundary of the project site, and is likely an extension of the off-site wetland to the east.

Directly south of this wetland, an additional area was originally identified as an area of interest using historic aerial photography, and the draft SCMAA LWI. Using aerial imagery, a polygon depicting the greatest extent of apparent saturation during the growing season was georeferenced onto an aerial base map on a Garmin Monterra handheld GPS unit which was then used in the field to layout data plot transects. Sixteen data plots in perpendicular transects moving from the eastern property boundary into the agricultural field toward the westernmost area of apparent saturation were dug to 24 inches and left open for 4 to 5 hours, where two additional wetland inclusions were subsequently identified along the eastern boundary of the project site. Wetland D is a small depressional wetland area (0.02 acre) and Wetland E (0.05 acre) is likely another extension of the off-site wetland to the east.

### **Vegetation**

Little to no natural vegetation exists in this area and it was seeded and planted at the time of field work. During the site assessment, three individuals of the obligate wetland plant *Rorippa sylvestris* were noted in their initial basal rosette growth stage within Wetland C. As a result of the active farming, the procedure for assessing problematic hydrophytic vegetation in atypical situations (USACE 2010) was followed resulting in the assumption that wetland plants would normally be present in areas where hydrology is sufficient to support them. This determination was made based on the proximity to the adjacent wetland area, the observation of a few obligate wetland species within a single growth cycle, and slight depressional topographical features resulting in ponded water.

#### **6.2.1 Soils**

Hydric soils are mapped by NRCS within this area, (Figure 7). Soils across the agriculture field within the project site were tilled to approximately 10 inches deep as evidenced by vertical stratification of soil layers (7.5 YR 3/1, 100% uniform matrix from 0 to 10 inches). Over time, continued plowing and downslope soil movement has resulted in this top layer of non-hydric soil mixing in with, and sometimes superimposed over, underlying soil layers with varying levels of hydric characteristics. Depths of these underlying soil strata are variable.

Due to the regular turning over of soils in the agriculture field and the presence of drain tile in the immediate area, most soils did not meet the criteria for problematic hydric soils. However, it is assumed that if soils are left undisturbed and drain tile removed, hydric soil would develop and likely meet the Depleted Matrix or Redox Dark Surface hydric soil indicator.

Typical upland soil pit characteristics show that the top layer is a uniform very dark gray to dark gray matrix (7.5 YR 3/1, 10YR 3/1, or 10YR 3/2), lacking redox features and usually restricted to an average depth of 16 inches of the soil profile. Hydric soil characteristics were still observed in most areas below this layer and as indicated by a change in value and chroma to 4/1 or 5/1 with varying percentages of concentration of bright soft masses of visible iron (value and chroma 3/4, 3/6, or 4/6 of differing hues).

Soils within Wetlands C and E typically had a very dark gray to dark gray matrix (7.5 YR 3/1 or 4/1) with mid-value high reddish chroma and sparse to very sparse nodules (2.5 YR 3/6, 5YR 4/6, 2.5 YR 3/4). Soils met either the Depleted Matrix or Redox Dark Surface hydric soil indicator.

Soils within Wetland D, just south and west of Wetland C, met either the Depleted Matrix or Redox Dark Surface hydric soil indicator as indicated by the presence of matrix values of 4/1 or the presence of redox concentrations within 12 inches of the soil surface.

### **6.2.2 Hydrology**

Hydrology is manipulated across the project site and managed to optimize agricultural production. A total of 11,214 linear feet of drain tile has been installed and is maintained within this area (Appendix C). The majority of the drain tile is functioning adequately to eliminate wetland hydrology. However, within Wetland C, some surface water and soil saturation was observed and these indicators were used to verify wetland hydrology. For the two remaining wetlands (Wetlands D and E), surface water and saturation indicators were absent. However, other wetland hydrology indicators were observed. Those include notable crop stress (primary hydrologic indicator D1) and evidence of recent iron reduction (i.e., not

relic) within the till layer (primary hydric soil indicator C6). These conditions meet the wetland hydrology requirements.

It is also worth noting that during the January 27, 2015, field visit, no water table was observed in the majority of the soil pits dug within Wetlands C, D, and E during the same point in time that water was observed at the bottom of several of the soil pits within the east farmed wetland area (see the following section) that were dug on the same day. This further reinforced the efficiency of the installed drain tile and lack of wetland hydrology.

### **6.2.3 Boundary Determination**

Vegetation was not used to determine the wetland boundary due to the lack of natural vegetation at the site. Additionally, soil was not considered to be a reliable indicator due to years of soil mixing from plowing. Therefore, hydric soils and hydrophytic vegetation was assumed to be present where adequate hydrologic indicators were observed. Consequently, the primary criterion used was the presence or absence of hydrology, and the wetland boundary was determined where no ponded water, soil saturation, crop stress, or recent iron reduction was observed and the water table was absent in the data plots.

Based on protocols from Chapter 5 of the *USACE Western Regional Supplement*, vegetation could be reasonably assumed to be present where hydric soil was mapped in the area and present in at least some locations (DP-01a, DP-03a, DP-06a, DP-13a, DP-15a, and DP-16a); the primary driver for boundary determinations was presence or absence of wetland hydrology. In sum, three small wetlands were identified along the east property boundary (Figure 8), two adjacent to the eastern property boundary, and one small depressional area slightly further west into the agriculture field.

## **6.3 Wetland B – PEM West Farmed Wetland**

This wetland was originally identified as an area of interest using recent historic aerial photography and the draft SCMAA LWI and was confirmed for additional investigation after collection of two data plots in October of 2014 and review of aerial imagery showing what appears to have been localized saturation. This area was not an area of interest prior to 175th Avenue being re-routed in 2008/2009. Prior to 175th Avenue being rerouted, an area to the

north appears to be saturated in several historic aerial photographs. However, that area was drain tiled at approximately the same time as 175th Avenue was re-routed. Two storm drains were also installed in this area during the re-routing of 175th Avenue, further draining the area. However, since the re-routing of 175th Avenue, this area appears to exhibit saturation on occasion, so data collection efforts were focused in this area. Using aerial imagery, a polygon depicting the greatest extent of apparent saturation during the growing season was georeferenced onto an aerial base map on a Garmin Monterra handheld GPS unit which was then used in the field to layout data plot transects. Data plots were dug to refusal (i.e., even in saturated winter months, gravel and road debris was encountered in places, which prevented digging some pits to required depths) and allowed to remain open for 24 hours, where one wetland was subsequently identified along the western boundary of the project site. Wetland B is a small depressional wetland area (0.17 acre).

### **6.3.1 Vegetation**

No natural vegetation is growing within the agricultural areas of the project site; non-target herbaceous growth is suppressed with herbicides. Based on protocols from Chapter 5 of the *USACE Western Regional Supplement*, areas of crop stress were noted and recorded and used as primary criteria in determining the hydrologic impacts of saturation on cultivated upland plants.

### **6.3.2 Soils**

Soil within the wetland boundary failed to meet hydric soil criteria due to problematic conditions. Roadway material, (imported angular aggregate and chunks of blacktop) were noted on the surface throughout the area and dense compaction of this material was encountered across the aerially derived polygon at approximately 7 inches depth. As a result, within the wetland boundary, soil was saturated from 7 inches to the surface of the soil and was mushy with any depressions filling with water. Outside the boundary, soil was firm and lacked saturation.

There was no consistency within the top 6 inches of the soil surface, but the hardpan layer beginning around 7 inches tended to be 7.5 YR 4/3 or 4/4, dry, crumbly, and platy. Based on protocols from Chapter 5 of the *USACE Western Regional Supplement*, hydrology, mapped

hydric soils and hydrogeomorphic position, it is expected that hydric soil will develop in this area.

### **6.3.3 Hydrology**

Hydrology is manipulated across the project site and managed to optimize agricultural production in this location. A total of 1,905 linear feet of drain tile has been installed north of this area (Appendix C). Two storm drains have been installed at the lowest point just to the north of this area. While the drain tile and storm drains appear to sufficiently drain the area to the north, the underlying soil structure noted earlier in this report results in water ponding within the top 6 inches of the soil surface in this area. This water is sufficient to result in crop stress and qualify the area for the primary hydrology indicator for Stunted or Stressed Plants (D1).

### **6.3.4 Boundary Determination**

Assuming vegetation would be present if the area were left undisturbed and because hydric soil was previously mapped in the general area, the primary driver for boundary determinations was presence or absence of wetland hydrology. Boundary configuration and hydrological determinations were made based on episaturation (water perched from 0 to 6 inches that fully saturated the soil) and visible crop stress (hydrologic indicator D1). The underlying cause of the hydrology is imported and compacted fill material, which causes water to perch within the upper 6 inches of the soil surface, prevents water from draining, and stresses the growth of planted crops.

## **6.4 Non-wetland Other Waters**

There is a narrow (less than 1 meter wide) agricultural drainage channel with two separate surface water inputs that join into a small drainage running the length of the project site (Figure 8). This feature is encompassed within Wetland A and continues south of Wetland A along the east property boundary. The first source of hydrology follows the hillside topography along the northeastern portion of the project site, trending in a southwestern direction in an open channel that turns directly south when the drainage becomes more channelized. A second surface water input comes from a piped area north and west along the grass dominated portion of the wetland. This source is contained in the pipe but emerges

from the hillside and flows overland in one location where there appears to be a drain tile break but also continues below ground along the fence line of the agriculture field until it joins the primary agricultural drainage channel. The part of the drainage feature that is within the wetland boundary is included in wetland acreage calculations.

## 7 DEVIATION FROM LOCAL WETLAND INVENTORY OR NATIONAL WETLAND INVENTORY

Anchor QEA determined that the areas identified as PW-F (along 175th Avenue) and wetland W-H on the draft LWI prepared by David Evans & Associates (DEA) are reduced in size on the project site as a result of drain tile installation and the subsequent reduction / loss of wetland hydrology. A brief summary follows in the next paragraph.

Anchor QEA wetland scientists have observed this project site for approximately 2 years, through multiple seasons and weather conditions, whereas the LWI assessment relied on 1 week of field work conducted during the week of March 18, 2013. DEA notes that “wetland delineation was conducted at a reconnaissance level of accuracy suitable for LWI documentation and City planning purposes.” DEA did not identify drain tile installed in 2008 and based their determinations solely on historic aerial photographs taken prior to recent drain tile installation. Further, data plots were not recorded for either PW-F or W-H by DEA, whereas Anchor QEA recorded field data for dozens of plots over the course of eight site visits, which were used to map wetlands within the project site boundary. A summary of the acreage refinements is contained in Table 6.

**Table 6**  
**Comparative Acreages Draft LWI and Field Verification**

Wetland ID	Source	Acres	Status <sup>2</sup>	Deviation (acreage)
Wetland A	AQ	2.34	Delineated	N/A
Wetland C	AQ	0.17	Delineated	N/A
W-H	Draft LWI	0.351	Potential	-0.28
Wetlands D and E	AQ	0.07	Confirmed	
PW-F	Draft LWI	0.511	Potential	-0.34
Wetland B	AQ	0.17	Confirmed	

Notes:

1. Acreages from the Draft LWI were not based on field data. Boundaries were derived from aerial photographs and not confirmed on site by DEA.
2. “Delineated” status refers to wetlands not previously identified using available resources but delineated during field visits.

n/a = not applicable    AQ = Anchor QEA    LWI = Local Wetland Inventory

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## **8 MAPPING METHOD**

Wetland boundaries and data plot locations were staked in the field and professionally land surveyed by Otak, Inc., to an estimated accuracy of 0.01 foot. Wetland boundaries and data plots were then plotted on a base map using AutoCAD®.

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## 9 ADDITIONAL INFORMATION

The creek/drainage feature is narrow, shallow, and seasonal. No fish distribution is mapped in the creek according to Oregon Explorer data and StreamNet. No fish or other fauna were observed in the creek and no threatened or endangered species are found within or near the site boundaries as determined using ORBIC data. Additionally, the drainage is eventually piped, and the exact course of it is unknown at this time.

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## 10 RESULTS AND CONCLUSIONS

Five wetlands in three areas were delineated on the project site, totaling 2.76 acres. The largest wetland (Wetland A; 2.34 acres) is a mix of PFO, PSS, and PEM wetlands with an incised drainage running through it. The area to the west of the wetland is actively farmed and hydrology is controlled through drain tiles to optimize farmable acreage. The eastern boundary of the wetland is variable and associated with hillslope topography where hydrology is not manipulated. South of Wetland A, three PEM farmed wetlands (Wetlands C, D, and E; 0.17, 0.02, and 0.05 acre, respectively) were delineated in shallow depressional areas south and west of the drainage feature.

One other agricultural area was investigated based on saturation visible on aerial imagery and their identification as potential wetlands on a draft LWI. Procedures for problematic sites (Chapter 5, *USACE Regional Supplement*) were used to determine wetland status and boundaries. Wetland B, identified on the draft LWI as PW-F, is a 0.17-acre PEM farmed wetland in a depressional area along 175th Avenue.

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## **11 DISCLAIMER**

This report documents the investigation, best professional judgment, and conclusions of Anchor QEA. 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 West Hills Development's own risk, unless it has been reviewed and approved in writing by Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055. If impacts to wetlands and other waters on this property are proposed, this report will need to be reviewed and approved in writing by the USACE Portland District in conjunction with the submittal of a Joint Section 404/Removal-Fill Permit Application.

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## 12 REFERENCES

- Adamus, P.R., 2001. *Guidebook for Hydrogeomorphic (HGM) – Based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles*. Oregon Division of State Lands, Salem, Oregon.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe, 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Government Printing Office, Washington, D.C.
- DEA (David Evans & Associates), 2013. *South Cooper Mountain Annexation Area: Local Wetland Inventory*. Prepared for the City of Beaverton.
- Hostetler, R., 2015. Personal communication with Anchor QEA via email. February 5, 2015.
- National Weather Service, 2014. Climate Reports for Portland, Oregon. National Oceanic and Atmospheric Administration. Last revised: January 27, 2012. Available from: <http://www.weather.gov/climate/index.php?wfo=pqr>. Accessed: April 23, 2015.
- NRCS (Natural Resources Conservation Service), 2002. WETS Table: Beaverton 2 SSW, OR0595. Available from: <http://agacis.rcc-acis.org/41067/wets>. Accessed: October 16, 2014.
- NRCS (NOAA Regional Climate Center), 2014a. *Web Soil Survey*. Soil Survey Staff, Natural Resources Conservation Service, U.S. Department of Agriculture. Available from: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed: October 20, 2014.
- NRCS, 2014b. *National Soil Survey Handbook*. Soil Properties and Qualities. Natural Resources Conservation Service, U.S. Department of Agriculture. Available from: [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2\\_054223](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=nrcs142p2_054223). Accessed: October 20, 2014.
- NRCS, 2015. Climate Data for Washington County, Oregon. Date accessed: January 15, 2015. Available from: <http://agacis.rcc-acis.org/41067/wets>.
- Oregon State University, 2015. “Oregon Explorer Natural Resources Digital Library.” Available from: <http://oregonexplorer.info/>.

- Thorson, T.D., S.A. Bryce, D.A. Lammers, A.J. Woods, J.H. Omernik, J. Kagan, D.E. Pater, and J.A. Comstock, 2003. *Ecoregions of Oregon* (color poster with map, descriptive text, summary tables and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,500,000).
- USACE (U.S. Army Corps of Engineers), 1987. *U.S. Army Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1. U.S. Army Waterways Experiment Station. Vicksburg, Mississippi.
- USACE, 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-3. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.
- USGS (U.S. Geological Survey), 2011. Beaverton Quadrangle. Oregon, Washington County. 7.5 Minute Series.

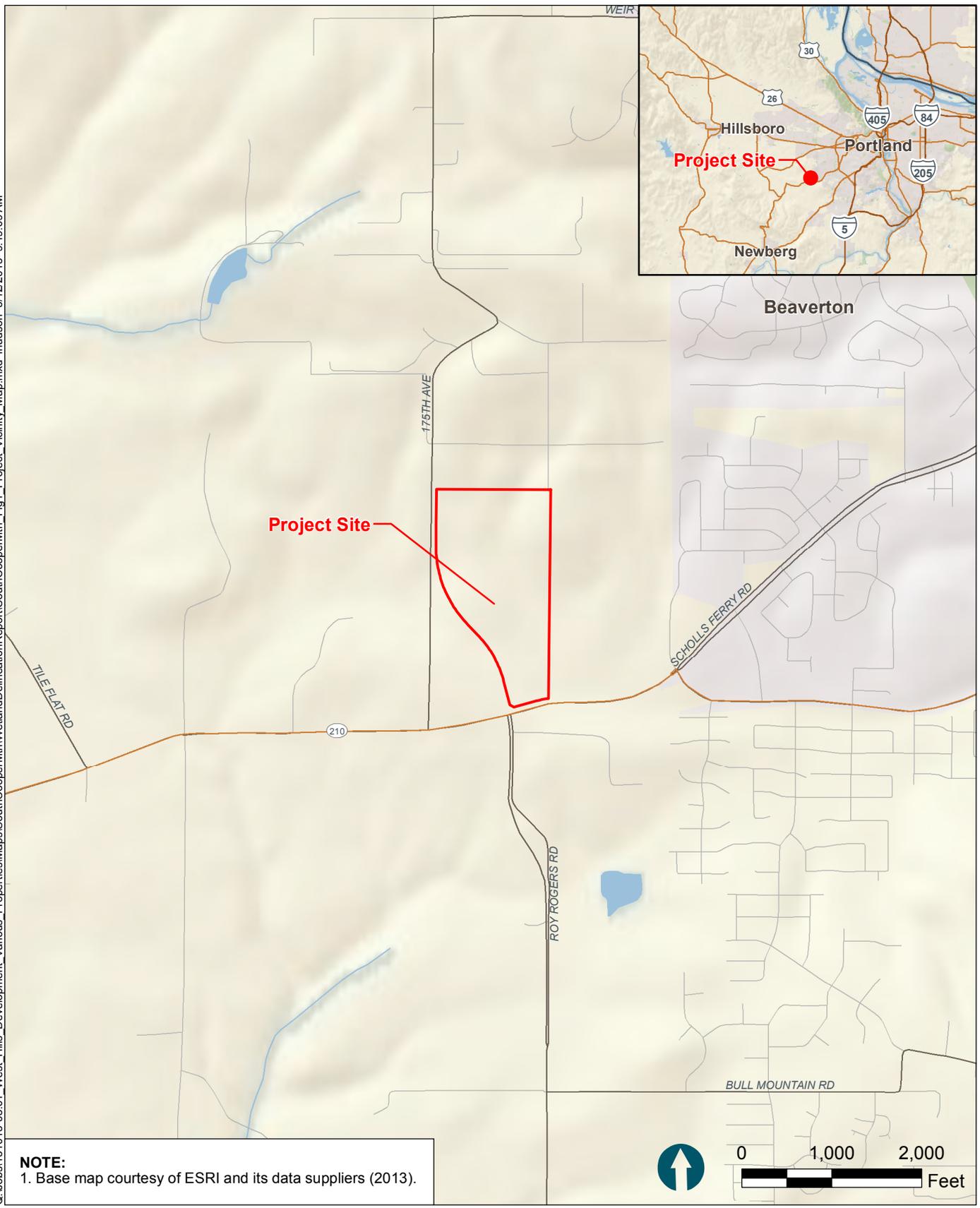


# FIGURES

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**Figure 1**  
Site Location Map  
West Hills Development – Crescent Grove Property Wetland Delineation  
Washington County, OR

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City of Portland, Oregon

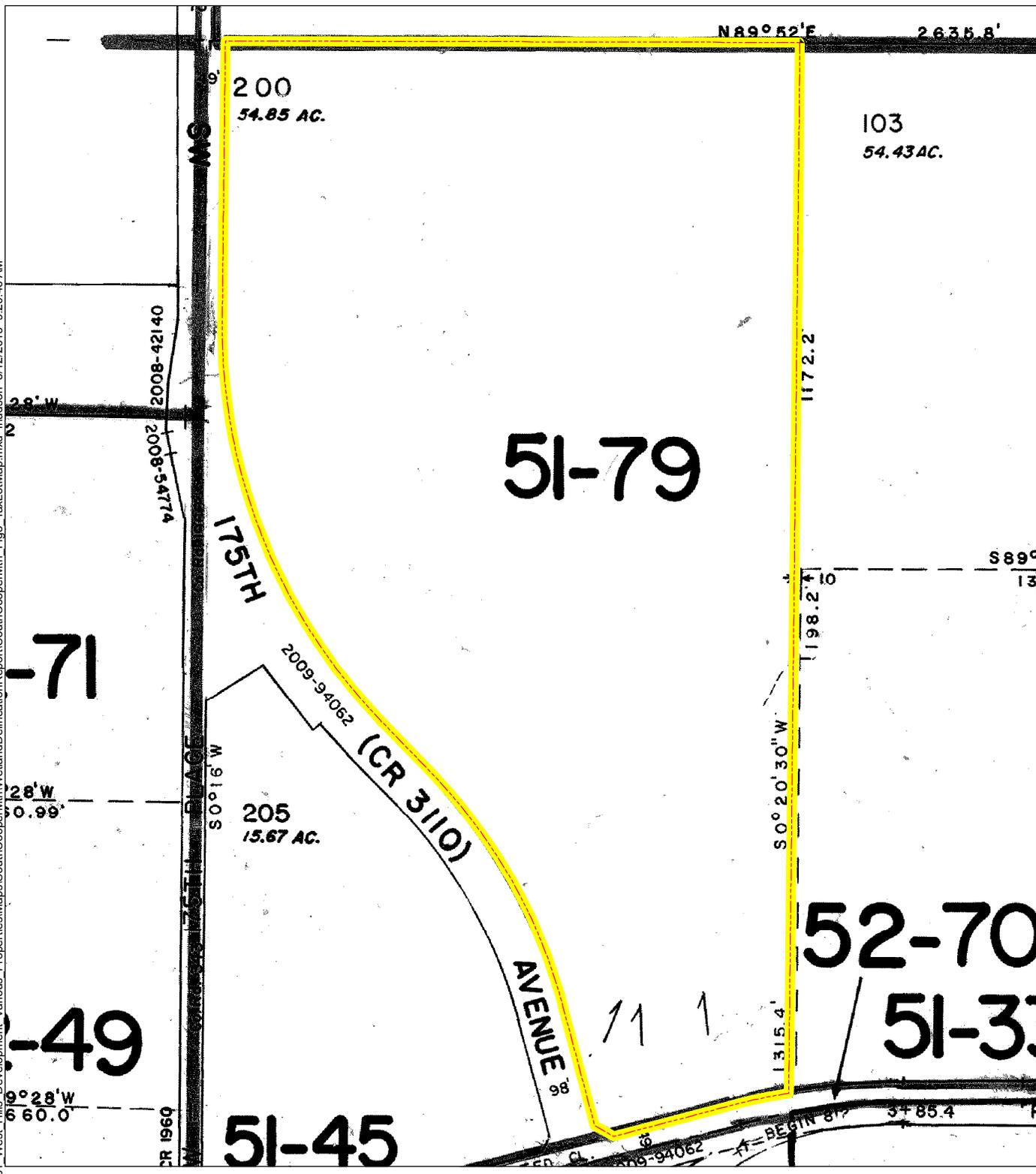
 Project Site Boundary

**NOTE:**  
1. Aerial imagery acquired from Portland Maps Server, City of Portland (2013).



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 Feet

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 Project Site Boundary

**NOTE:**  
1. Tax lot map acquired from Washington County.



**Figure 3**

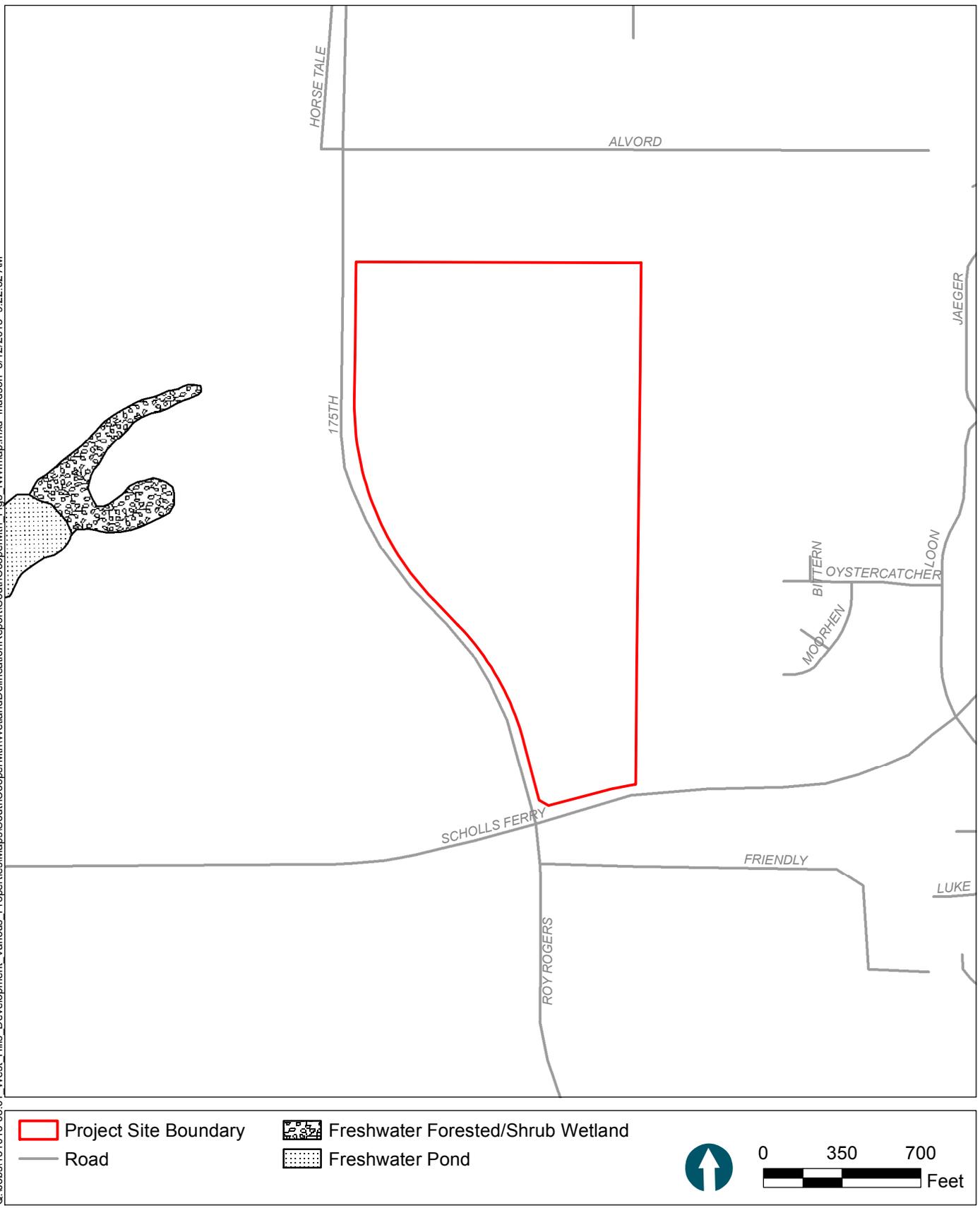
Tax Lot Map

West Hills Development – Crescent Grove Property Wetland Delineation  
Washington County, OR



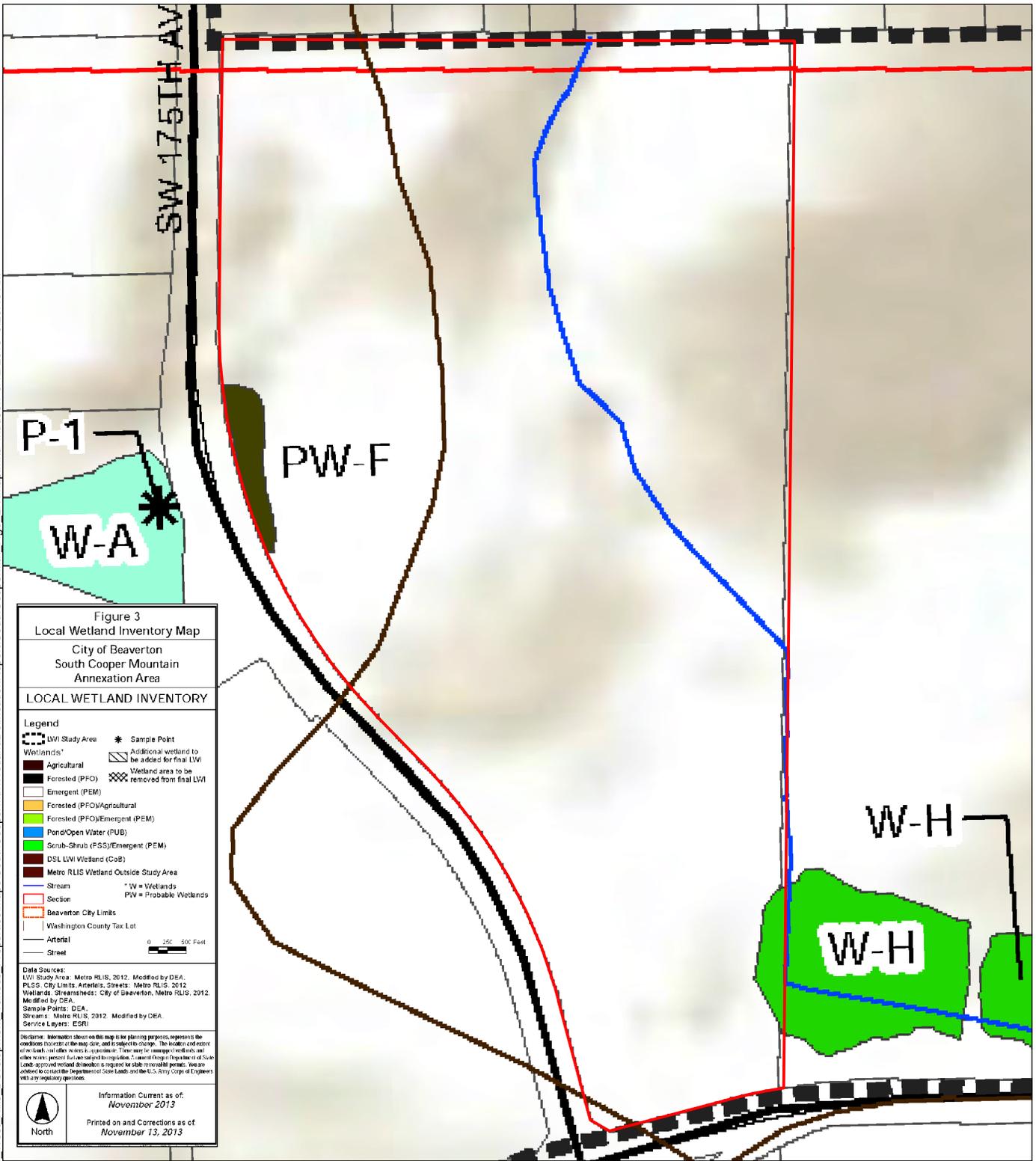


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**Figure 5**  
National Wetlands Inventory Map  
West Hills Development – Crescent Grove Property Wetland Delineation  
Washington County, OR

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Project Site Boundary

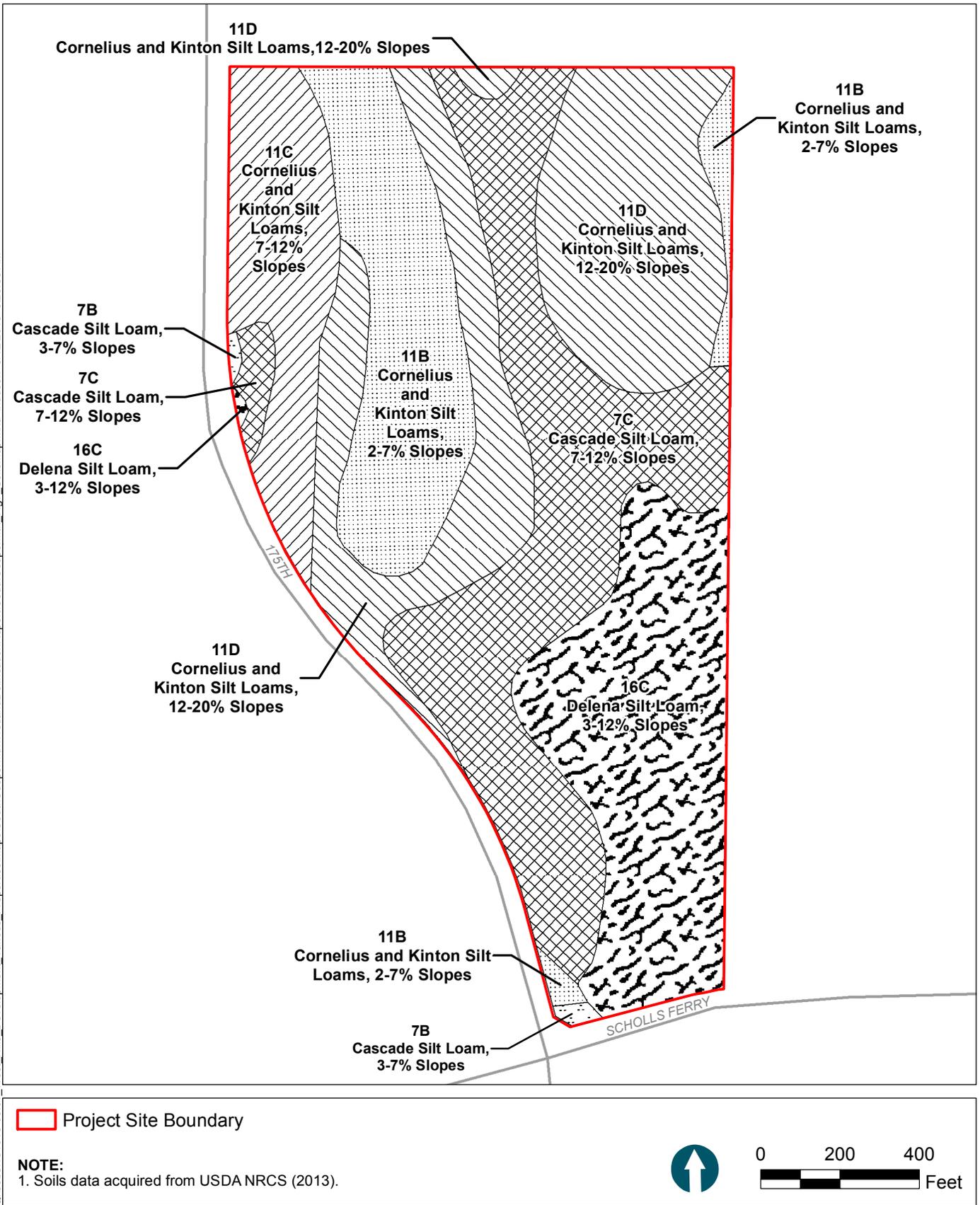
**NOTE:**

1. LWI map acquired from David Evans and Assoc. (2013). Map image is georeferenced.

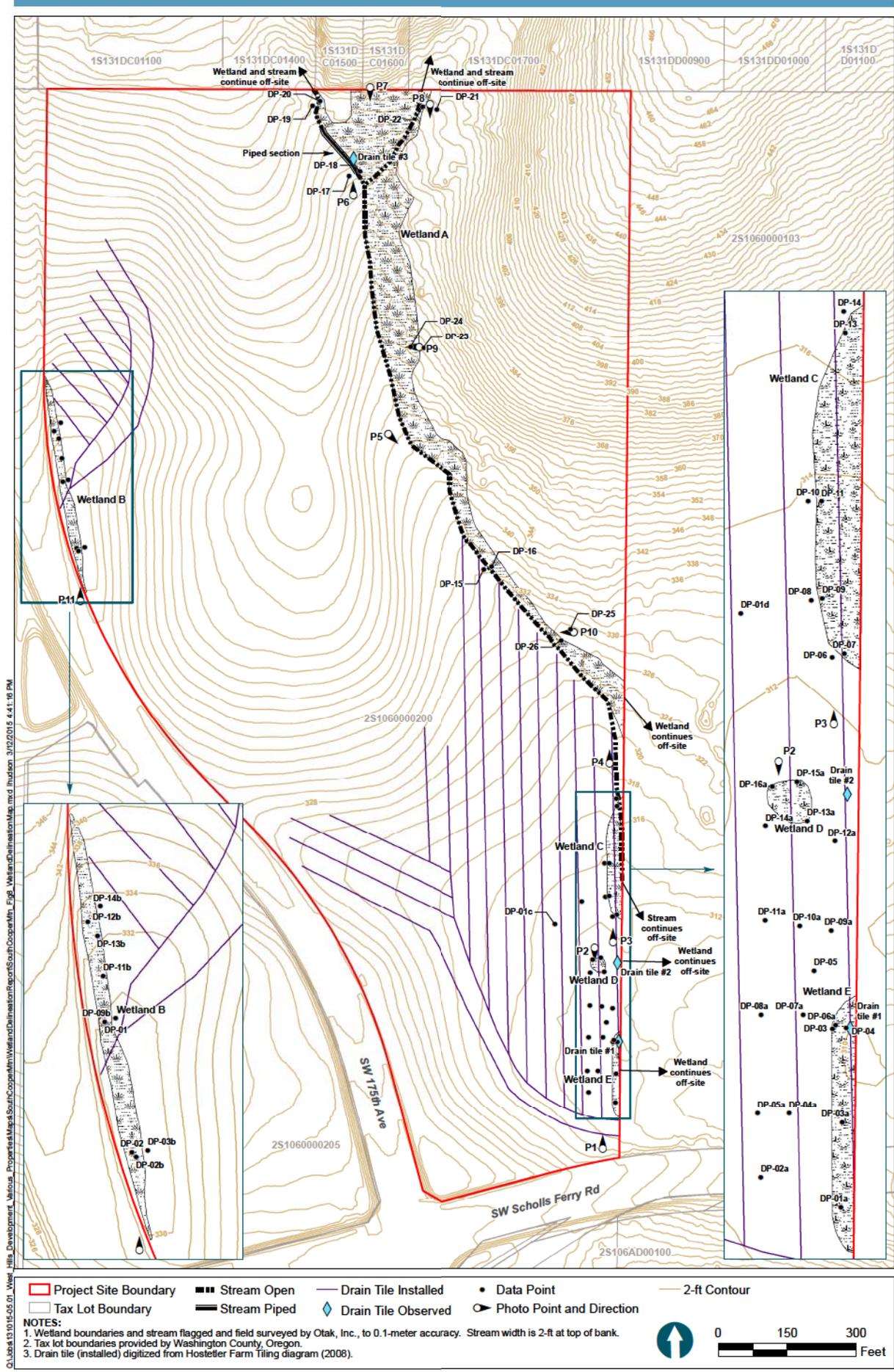


**Figure 6**  
Draft David Evans and Associates Local Wetlands Inventory Map  
West Hills Development – Crescent Grove Property Wetland Delineation  
Washington County, OR

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**Figure 7**  
Soils Map  
West Hills Development – Crescent Grove Property Wetland Delineation  
Washington County, OR



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**Figure 8**  
 Wetland Delineation and Photo Locations/Directions  
 West Hills Development – Crescent Grove Property Wetland Delineation  
 Washington County, OR

APPENDIX A  
SITE PHOTOGRAPHS

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**Appendix A, Photo 1**  
Looking North from Southeast Corner of Property  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 2**  
Looking South toward Off-site Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 3**  
Looking North toward Wetland E North area – PEM Farmed Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 4**  
Looking North toward Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 5**  
Looking South along West Boundary of Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 6**  
Looking North at Drainage Feature along West Boundary of Wetland A –  
PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 7**  
Looking South from North Boundary of Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 8**  
Looking South along East Boundary of Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 9**  
Looking West along East Boundary of Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 10**  
Looking West along East Boundary of Wetland A – PFO/PSS/PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 11**  
Looking North toward Wetland B – PEM Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 12**  
Drain Tile at East Boundary of Property near Wetland C South area – PEM Wetland Inclusions  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



**Appendix A, Photo 13**  
Culverts along 175th Avenue and Wetland B – PEM Farmed Wetland  
Wetland Delineation Report  
West Hills Development – Crescent Grove Property



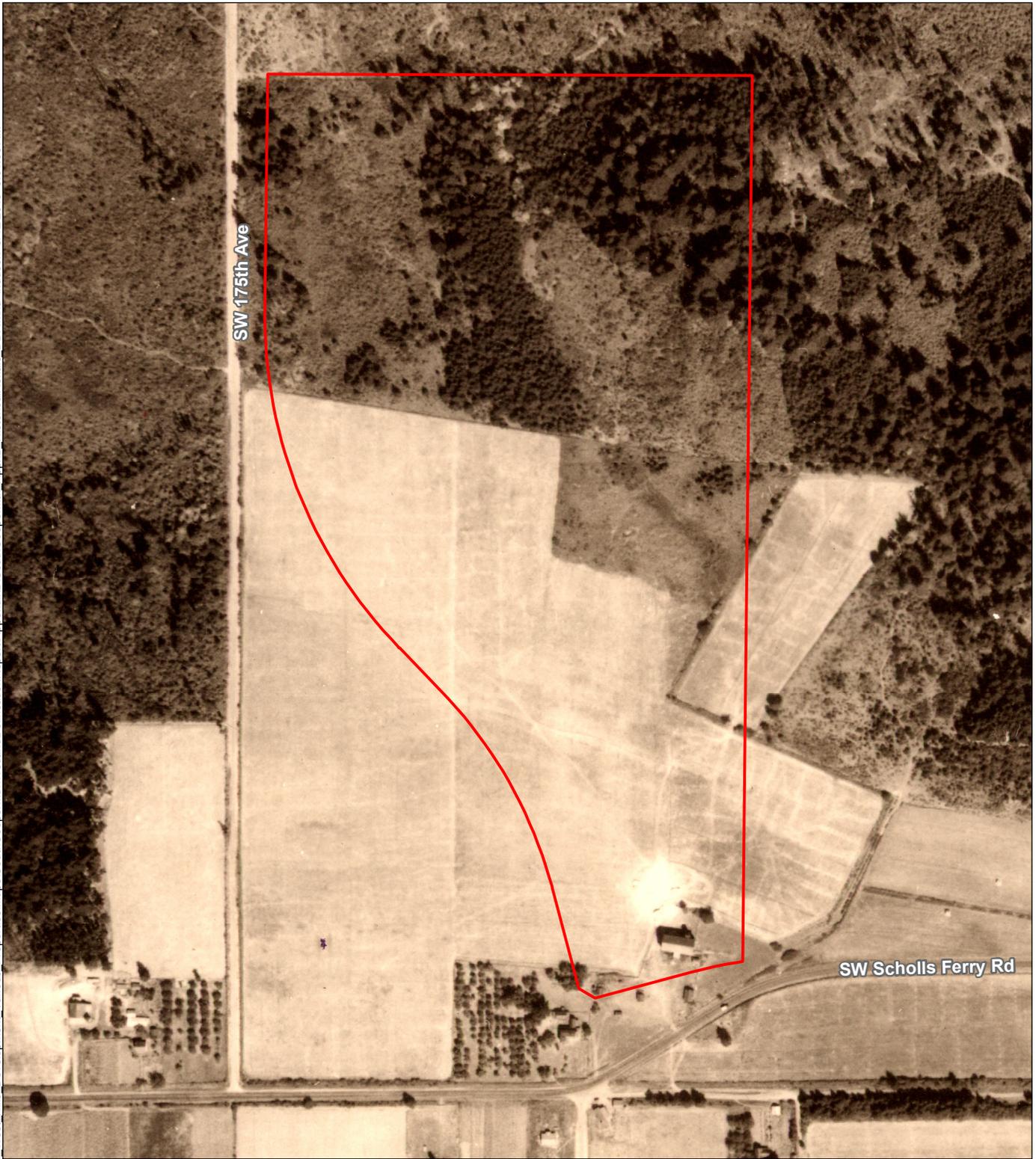
APPENDIX B

HISTORIC AERIAL PHOTOGRAPHS

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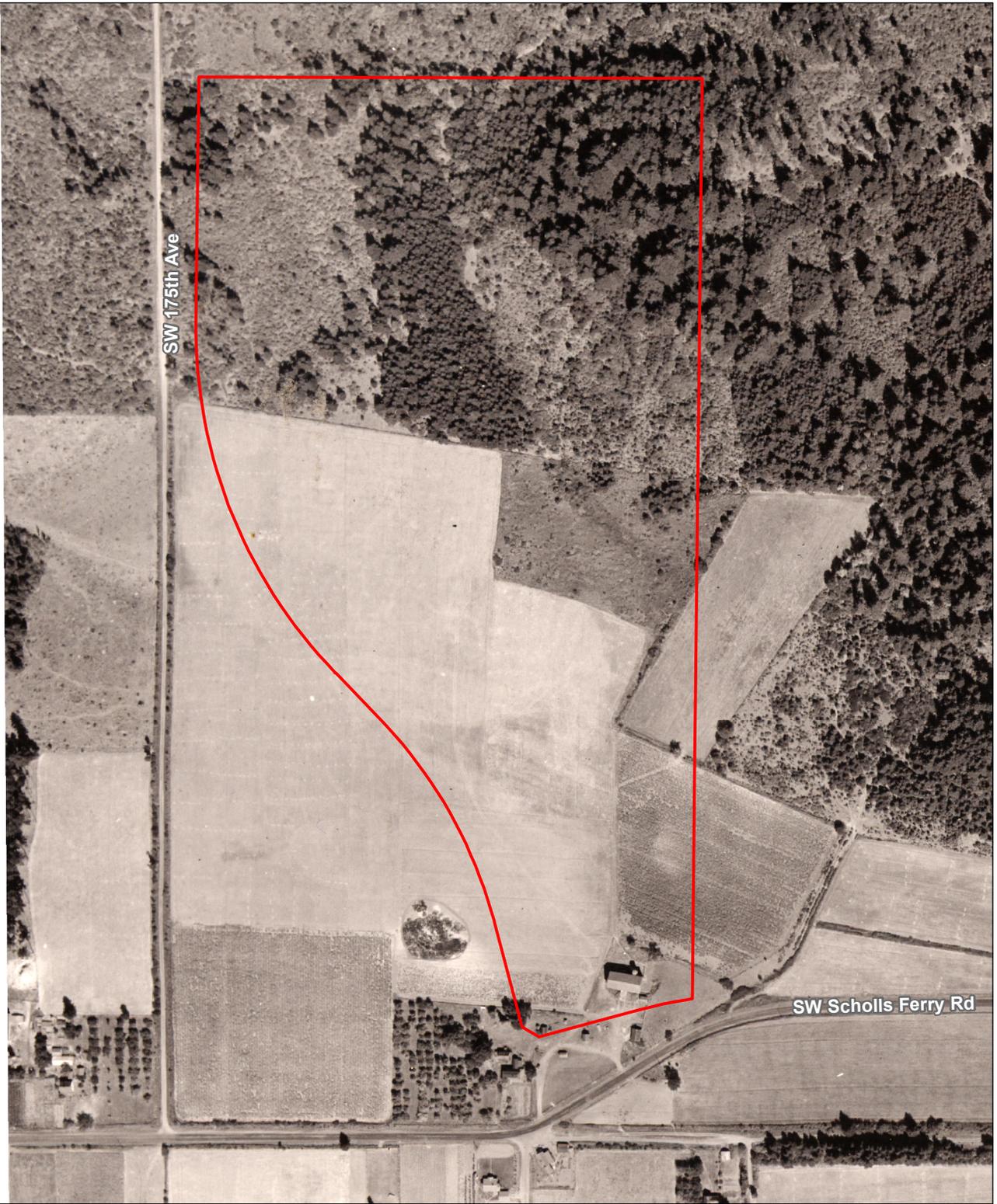
 Project Site Boundary

**NOTE:**  
1. Aerial image acquired from US Army Corps of Engineers.



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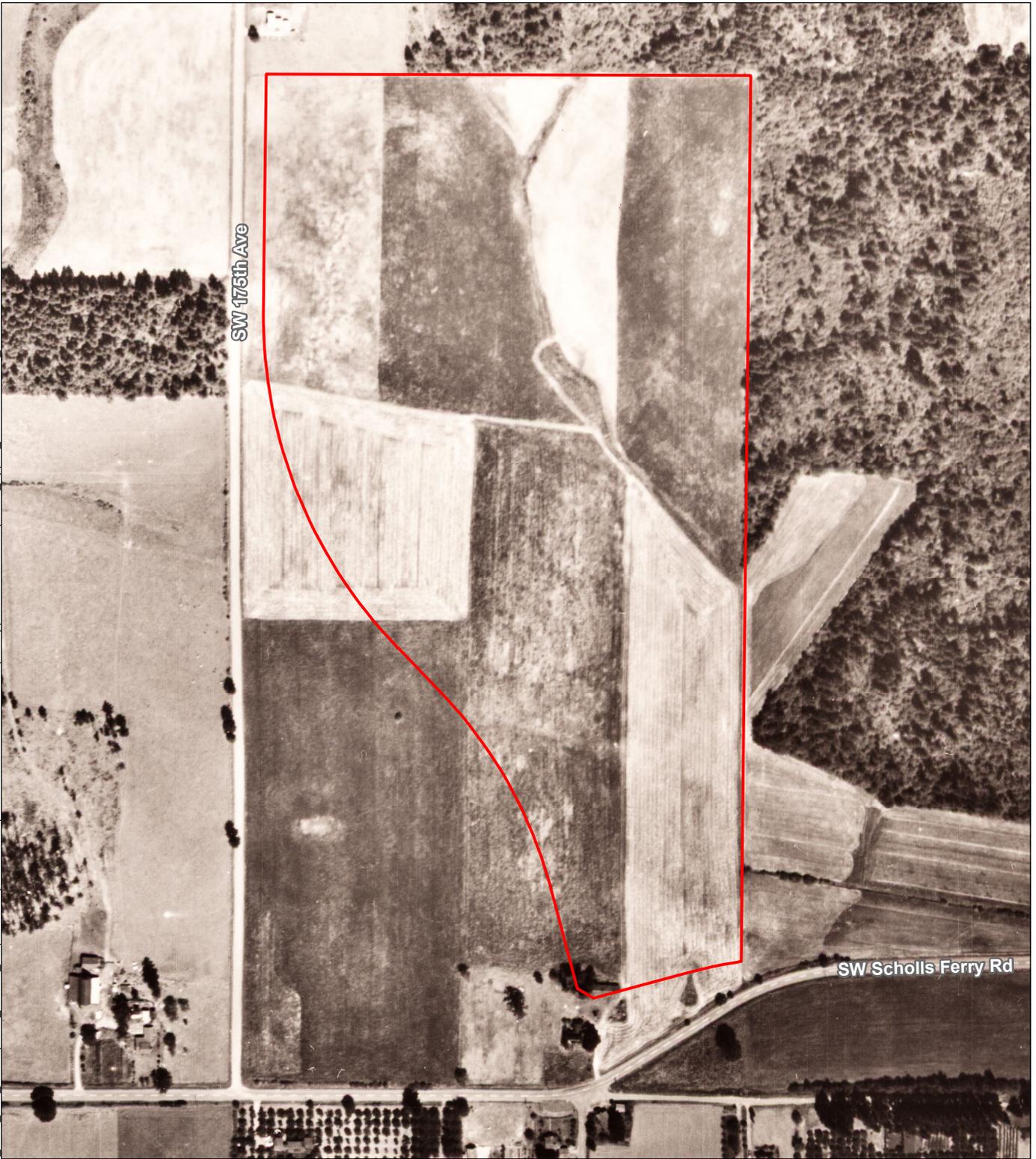
 Project Site Boundary

**NOTE:**  
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 Project Site Boundary

**NOTE:**  
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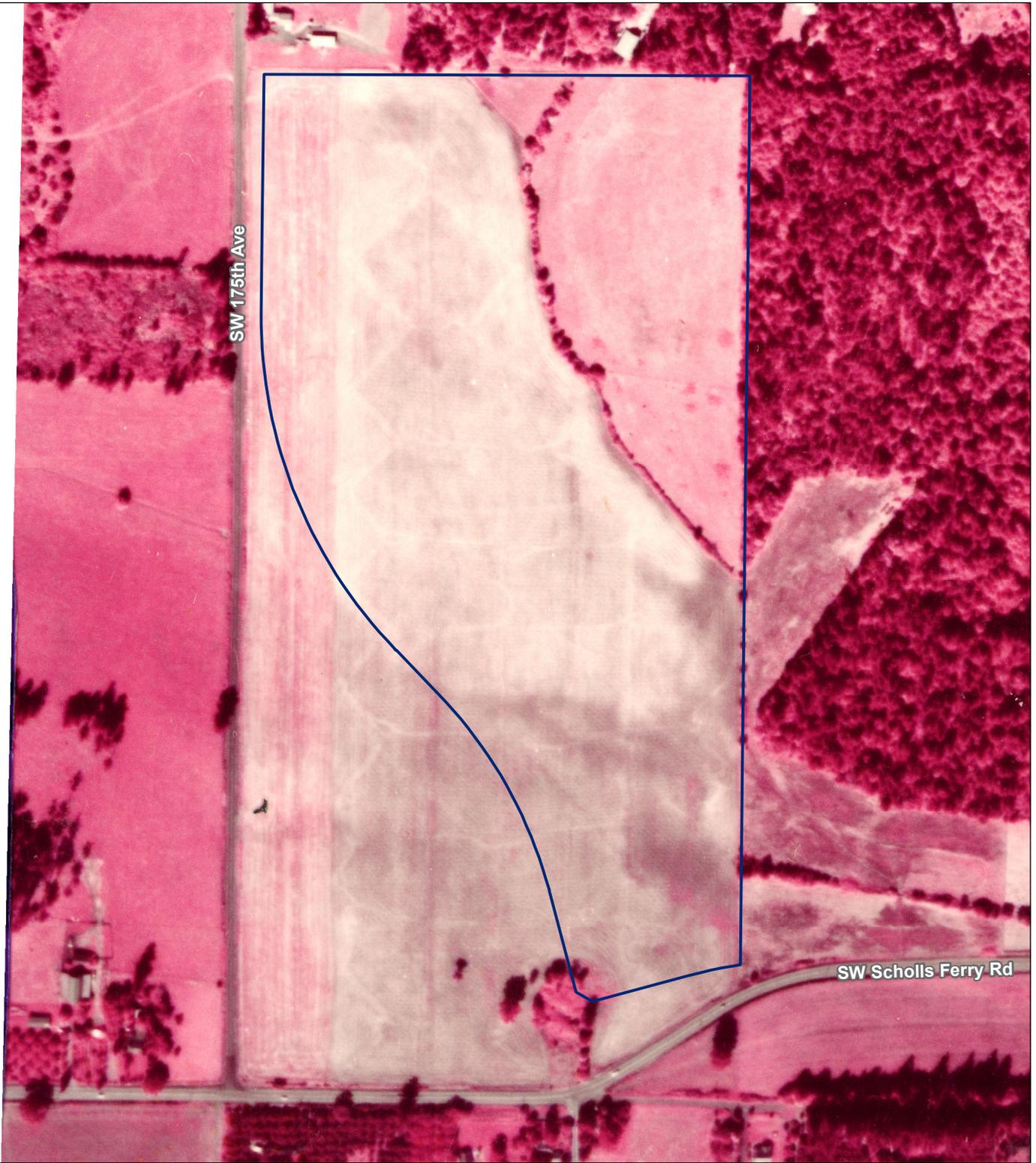
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**NOTE:**  
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 Project Site Boundary

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 Project Site Boundary

**NOTE:**  
1. Aerial image acquired from Google Earth.



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 Project Site Boundary

**NOTE:**  
1. Aerial image acquired from Google Earth.



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 Feet

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 Project Site Boundary

**NOTE:**  
1. Aerial image acquired from Google Earth.



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# APPENDIX C

## DRAIN TILE DIAGRAM

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Rec'd 10-13-08



# A facsimile from

## Hostetler Farm Tiling

1967 NE 19<sup>th</sup> Ave  
Canby, Or 97013  
503-266-3584

To: Crescent Grove Cemetery  
Fax number: 503-620-1264

Date: 10/13/2008

Regarding: drainage project @ 175<sup>th</sup> and Scholls Ferry Rd

Comments:  
Attn: Nancy

15 acres

Drainage would take place on about 20ac of the field and the cost of material and installation will be based on footage installed @ 40' spacing of lateral drainage lines. We would be using a 6" main line and 4" lateral lines. The cost will be approximately \$1000 p/ac and not to exceed \$1000 p/ac. If you have any questions please feel free to call me @ 503-209-9556. Ron Hostetler

Hostetler Farm Tiling

266-3584

Ron Hostetler, owner

9:30<sup>am</sup> 10/13/08

per phone conversation w/ Ron  
I told him CGB authorized 15 acres  
not 20. He will not exceed 15 acres

RL

# Invoice

**HOSTETLER FARM TILING**  
1967 NE 19TH AVE.  
CANBY, OR 97013-2546

DATE	INVOICE #
10/18/2008	2014

**BILL TO:**  
Crescent Grove Cemetery  
9925 SW Greenburg Rd  
Tigard, Or 97223

**SHIP TO:**  
17501 and Scholls Ferry Rd

P.O. NUMBER	TERMS	REP	SHIP	VIA	FOB	PROJECT
-------------	-------	-----	------	-----	-----	---------

10/18/2008

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
977	6" Tile tubin	tubing installed	2.25	2,198.25
12,142	4" tubing ins	tubing installed	0.95	11,534.90
	Fittings	hookups and outlet pipe	375.00	375.00

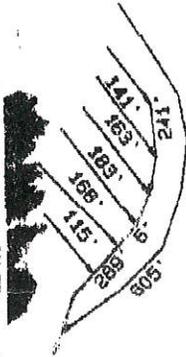
CK 12766

10/27/2008

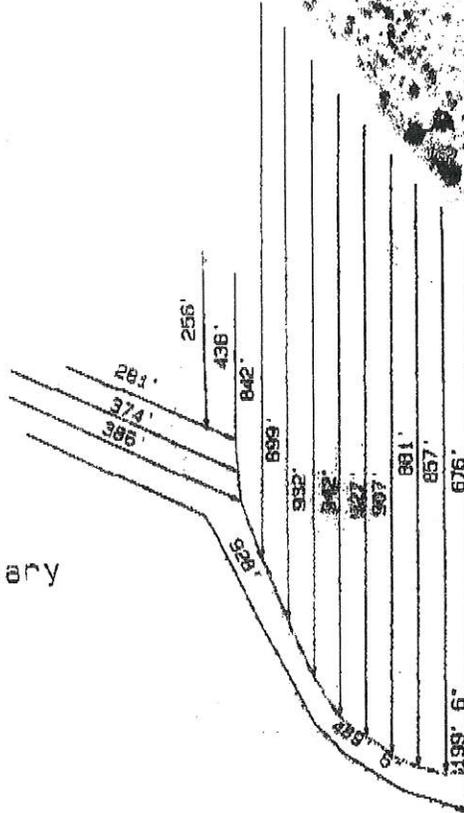
Paid in full

**TOTAL**

\$14,108.15



Crescent Cemetary  
10\15\08



SW Schellin Ferry St

SW Schellin Ferry St

Imaged 3/2008 from PlanetVision  
© 2008 TerraStar

Google

Eye alt: 2335 ft

Jul 12, 2007

alt: 338 ft

53M

45° 55' 45" N



# APPENDIX D

## WEATHER DATA

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National Weather Service - Climate Data select  
 http://www.ncdc.noaa.gov.  
 Climatological Report (Monthly)

000  
 CXUS56 KPQR 011650  
 CLMHIO

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 950 AM PDT FRI AUG 1 2014

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF JULY 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
.....						
TEMPERATURE (F)						
HIGHEST	97				92	07/23 07/01
LOWEST	48				44	07/12
AVG. MAXIMUM	85.0		80.1	4.9	83.1	
AVG. MINIMUM	54.8		51.1	3.7	50.5	
MEAN	69.9		65.6	4.3	66.8	
DAYS MAX >= 90	11		4.3	6.7	7	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.0	0.0	0	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	2.81	1983				
MINIMUM	0.00	1994				
		1984				
		1967				
TOTALS	0.52		0.55	-0.03		T
DAYS >= .01	4		MM	MM		0
DAYS >= .10	2		MM	MM		0
DAYS >= .50	0		MM	MM		0
DAYS >= 1.00	0		MM	MM		0
GREATEST						
24 HR. TOTAL	0.38	07/23 TO 07/24				

DEGREE_DAYS						
HEATING TOTAL	6		56	-50		23
SINCE 7/1	6		56	-50		23
COOLING TOTAL	166		75	91		86
SINCE 1/1	178		101	77		131

WIND (MPH)						
AVERAGE WIND SPEED			5.5			
RESULTANT WIND SPEED/DIRECTION			3/330			
HIGHEST WIND SPEED/DIRECTION			20/330	DATE	07/29	
HIGHEST GUST SPEED/DIRECTION			26/310	DATE	07/08	

SKY COVER  
POSSIBLE SUNSHINE (PERCENT) MM  
AVERAGE SKY COVER 0.20

AVERAGE RH (PERCENT) 60

WEATHER CONDITIONS.	NUMBER OF	DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	0	RAIN	1
LIGHT RAIN	3	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	2	FOG W/VIS <= 1/4 MILE	0
HAZE	1		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

National Weather Service  
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 Climatological Report (Monthly)

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 CXUS56 KPQR 011458  
 CLMHIO

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 758 AM PDT MON SEP 1 2014

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF AUGUST 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
.....						
TEMPERATURE (F)						
HIGHEST	98				92	08/21 08/06
LOWEST	45				46	08/20
AVG. MAXIMUM	85.1		81.4	3.7	81.5	
AVG. MINIMUM	55.2		50.3	4.9	54.7	
MEAN	70.2		65.9	4.3	68.1	
DAYS MAX >= 90	9		4.9	4.1	3	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.0	0.0	0	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	3.84	1968				
MINIMUM	0.00	1998				
		1958				
		1955				
TOTALS	0.14		0.63	-0.49	0.85	
DAYS >= .01	4		MM	MM	9	
DAYS >= .10	0		MM	MM	2	
DAYS >= .50	0		MM	MM	0	
DAYS >= 1.00	0		MM	MM	0	
GREATEST						
24 HR. TOTAL	0.09	08/12 TO 08/13				

DEGREE_DAYS						
HEATING TOTAL	3		51	-48	12	
SINCE 7/1	9		107	-98	35	
COOLING TOTAL	172		77	95	115	
SINCE 1/1	350		178	172	246	

WIND (MPH)						
AVERAGE WIND SPEED			5.1			
RESULTANT WIND SPEED/DIRECTION			3/327			
HIGHEST WIND SPEED/DIRECTION			23/320	DATE	08/19	
HIGHEST GUST SPEED/DIRECTION			28/320	DATE	08/19	

SKY COVER  
POSSIBLE SUNSHINE (PERCENT) MM  
AVERAGE SKY COVER 0.20

AVERAGE RH (PERCENT) 63

WEATHER CONDITIONS.	NUMBER OF	DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	0	RAIN	0
LIGHT RAIN	4	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	4	FOG W/VIS <= 1/4 MILE	0
HAZE	9		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

National Weather Service  
 http://www.ncdc.noaa.gov.  
 Climatological Report (Monthly)

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 CXUS56 KPQR 011534  
 CLMHIO

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 834 AM PDT WED OCT 1 2014

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF SEPTEMBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
TEMPERATURE (F)						
HIGHEST	95				97	09/11
LOWEST	42				40	09/26
AVG. MAXIMUM	78.8		74.7	4.1	72.2	
AVG. MINIMUM	50.6		46.3	4.3	52.7	
MEAN	64.7		60.5	4.2	62.4	
DAYS MAX >= 90	3		1.3	1.7	2	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.1	-0.1	0	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	6.27	2013				
MINIMUM	0.00	1975				
TOTALS	1.10		1.44	-0.34	6.27	
DAYS >= .01	7		MM	MM	18	
DAYS >= .10	4		MM	MM	11	
DAYS >= .50	1		MM	MM	4	
DAYS >= 1.00	0		MM	MM	2	
GREATEST						
24 HR. TOTAL	0.80	09/23 TO 09/24				

DEGREE_DAYS						
HEATING TOTAL	46		155	-109	131	
SINCE 7/1	55		262	-207	166	
COOLING TOTAL	45		19	26	64	
SINCE 1/1	395		197	198	310	

WIND (MPH)						
AVERAGE WIND SPEED			4.8			
RESULTANT WIND SPEED/DIRECTION			1/038			
HIGHEST WIND SPEED/DIRECTION			28/060	DATE	09/11	
HIGHEST GUST SPEED/DIRECTION			35/060	DATE	09/11	

SKY COVER						
POSSIBLE SUNSHINE (PERCENT)	MM					
AVERAGE SKY COVER			0.30			

Sept\_2014\_Monthly.txt

AVERAGE RH (PERCENT) 65

WEATHER CONDITIONS.	NUMBER OF	DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	1	RAIN	3
LIGHT RAIN	9	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	10	FOG W/VIS <= 1/4 MILE	2
HAZE	12		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

Oct\_2014\_Monthly.txt

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CXUS56 KPQR 011715  
CLMHI 0

CLIMATE REPORT  
NATIONAL WEATHER SERVICE PORTLAND OREGON  
1015 AM PDT SAT NOV 1 2014

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF OCTOBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
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TEMPERATURE (F)

HIGHEST	87				78	10/22
LOWEST	42				28	10/30
AVG. MAXIMUM	67.5		62.7	4.8	63.7	
AVG. MINIMUM	48.3		40.3	8.0	37.5	
MEAN	57.9		51.5	6.4	50.6	
DAYS MAX >= 90	0		0.0	0.0	0	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		2.7	-2.7	2	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)

RECORD						
MAXIMUM	8.41	1950				
MINIMUM	0.11	1988				
TOTALS	6.12		3.18	2.94	0.87	
DAYS >= .01	18		MM	MM	7	
DAYS >= .10	14		MM	MM	2	
DAYS >= .50	4		MM	MM	0	
DAYS >= 1.00	1		MM	MM	0	
GREATEST						
24 HR. TOTAL	1.44	10/22 TO 10/23				

DEGREE\_DAYS

HEATING TOTAL	222		419	-197	438	
SINCE 7/1	277		681	-404	604	
COOLING TOTAL	10		1	9	0	
SINCE 1/1	405		198	207	310	

WIND (MPH)

AVERAGE WIND SPEED			4.6			
RESULTANT WIND SPEED/DIRECTION			1/161			
HIGHEST WIND SPEED/DIRECTION			35/180	DATE	10/25	
HIGHEST GUST SPEED/DIRECTION			47/180	DATE	10/25	

SKY COVER

POSSIBLE SUNSHINE (PERCENT) MM  
AVERAGE SKY COVER 0.60

AVERAGE RH (PERCENT) 80

WEATHER CONDITIONS.		NUMBER OF DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	2	RAIN	10
LIGHT RAIN	19	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	29	FOG W/VIS <= 1/4 MILE	7
HAZE	6		

- INDICATES NEGATIVE NUMBERS.  
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 Climatological Report (Monthly)

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 CXUS56 KPQR 011710  
 CLMHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 910 AM PST MON DEC 1 2014

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF NOVEMBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
TEMPERATURE (F)						
HIGHEST	62				61	11/11
LOWEST	19				20	11/22
AVG. MAXIMUM	52.2		52.0	0.2	51.8	
AVG. MINIMUM	37.3		36.7	0.6	35.3	
MEAN	44.7		44.4	0.3	43.5	
DAYS MAX >= 90	0		0.0	0.0	0	
DAYS MAX <= 32	0		0.2	-0.2	0	
DAYS MIN <= 32	10		8.3	1.7	10	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	12.86	2006				
MINIMUM	0.40	1936				
TOTALS	2.83		6.47	-3.64	2.73	
DAYS >= .01	15		MM	MM	16	
DAYS >= .10	11		MM	MM	8	
DAYS >= .50	2		MM	MM	0	
DAYS >= 1.00	0		MM	MM	0	
GREATEST						
24 HR. TOTAL	0.84	10/31 TO 11/01				

DEGREE_DAYS						
HEATING TOTAL	579		620	-41	633	
SINCE 7/1	856		1301	-445	1237	
COOLING TOTAL	0		0	0	0	
SINCE 1/1	405		198	207	310	

WIND (MPH)						
AVERAGE WIND SPEED			6.2			
RESULTANT WIND SPEED/DIRECTION			2/112			
HIGHEST WIND SPEED/DIRECTION			35/070	DATE	11/11	
HIGHEST GUST SPEED/DIRECTION			47/070	DATE	11/11	

SKY COVER

POSSIBLE SUNSHINE (PERCENT) MM  
AVERAGE SKY COVER 0.60

AVERAGE RH (PERCENT) 77

WEATHER CONDITIONS.		NUMBER OF DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	1	RAIN	5
LIGHT RAIN	20	FREEZING RAIN	0
LT FREEZING RAIN	1	HAIL	0
HEAVY SNOW	0	SNOW	1
LIGHT SNOW	1	SLEET	0
FOG	22	FOG W/VIS <= 1/4 MILE	11
HAZE	6		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
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 Climatological Report (Monthly)

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 CXUS56 KPQR 011551  
 CLMHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 751 AM PST THU JAN 1 2015

... THE HILLSBORO OR CLIMATE SUMMARY FOR THE MONTH OF DECEMBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER	OBSERVED VALUE	DATE(S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR'S VALUE	DATE(S)
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TEMPERATURE (F)

HIGHEST	61				58	12/01
LOWEST	19				9	12/08
AVG. MAXIMUM	49.4		45.0	4.4	39.9	
AVG. MINIMUM	37.3		32.1	5.2	27.5	
MEAN	43.3		38.5	4.8	33.7	
DAYS MAX >= 90	0		0.0	0.0	0	
DAYS MAX <= 32	0		1.1	-1.1	4	
DAYS MIN <= 32	4		14.3	-10.3	23	
DAYS MIN <= 0	0		0.0	0.0	0	

PRECIPITATION (INCHES)

RECORD						
MAXIMUM	13.78	1996				
MINIMUM	1.08	2013				
TOTALS	5.88		6.74	-0.86	1.08	
DAYS >= .01	21		MM	MM	9	
DAYS >= .10	12		MM	MM	3	
DAYS >= .50	5		MM	MM	1	
DAYS >= 1.00	2		MM	MM	0	
GREATEST						
24 HR. TOTAL	1.12	12/04 TO 12/05 12/19 TO 12/20				

DEGREE\_DAYS

HEATING TOTAL	665		820	-155	963	
SINCE 7/1	1521		2121	-600	2200	
COOLING TOTAL	0		0	0	0	
SINCE 1/1	405		198	207	310	

WIND (MPH)

AVERAGE WIND SPEED	5.4					
RESULTANT WIND SPEED/DIRECTION	2/114					
HIGHEST WIND SPEED/DIRECTION	39/180			DATE	12/11	
HIGHEST GUST SPEED/DIRECTION	52/180			DATE	12/11	

SKY COVER  
POSSIBLE SUNSHINE (PERCENT) MM  
AVERAGE SKY COVER 0.70

AVERAGE RH (PERCENT) 83

WEATHER CONDITIONS.	NUMBER OF	DAYS WITH	
THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	2	RAIN	10
LIGHT RAIN	25	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	25	FOG W/VIS <= 1/4 MILE	7
HAZE	0		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

National Weather Service  
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WFO Monthly/Daily Climate Data

000  
 CXUS56 KPQR 011230  
 CF6HI 0  
 PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: HILLSBORO OR  
 MONTH: OCTOBER  
 YEAR: 2014  
 LATITUDE: 45 32 N  
 LONGITUDE: 122 57 W

TEMPERATURE IN F:							PCPN:	SNOW:	WIND			SUNSHINE:		SKY	PK WND			
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
									12Z AVG MX 2MIN									
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	66	42	54	-2	11	0	0.00	0.0	0	2.6	10	70	M	M	4	1	14	40
2	71	42	57	1	8	0	0.00	0.0	0	2.7	10	90	M	M	1	1	13	70
3	81	42	62	7	3	0	0.00	0.0	0	1.7	9	140	M	M	0		12	130
4	85	43	64	9	1	0	0.00	0.0	0	1.9	10	300	M	M	0	18	10	290
5	85	50	68	13	0	3	0.00	0.0	0	2.5	10	30	M	M	0		13	40
6	87	52	70	16	0	5	0.00	0.0	0	2.0	9	50	M	M	0	1	11	350
7	82	51	67	13	0	2	0.00	0.0	0	2.4	9	310	M	M	1	128	11	310
8	77	46	62	8	3	0	0.00	0.0	0	2.2	10	50	M	M	0	1	12	30
9	76	46	61	8	4	0	0.00	0.0	0	0.6	7	60	M	M	4	128	7	70
10	70	45	58	5	7	0	0.00	0.0	0	1.6	8	50	M	M	7	128	10	50
11	72	50	61	8	4	0	0.22	0.0	0	4.7	20	300	M	M	8	1	25	290
12	65	46	56	4	9	0	0.00	0.0	0	1.9	8	140	M	M	8	128	10	140
13	72	44	58	6	7	0	0.01	M	0	5.8	17	310	M	M	5	1	27	210
14	61	54	58	6	7	0	0.68	0.0	0	4.5	13	130	M	M	9	1	15	140
15	59	52	56	4	9	0	0.42	0.0	0	10.9	20	180	M	M	9	1	28	170
16	68	47	58	7	7	0	0.00	0.0	0	2.6	12	180	M	M	2	1	15	140
17	59	52	56	5	9	0	0.20	0.0	0	4.5	10	140	M	M	10	1	13	140
18	71	53	62	11	3	0	0.02	0.0	0	5.1	13	170	M	M	8	1	15	180
19	72	52	62	12	3	0	0.02	0.0	0	2.9	10	230	M	M	5	12	15	230
20	63	53	58	8	7	0	0.24	0.0	0	7.6	16	170	M	M	8	18	20	170
21	60	53	57	7	8	0	0.07	0.0	0	9.7	20	170	M	M	10	1	24	170
22	58	52	55	5	10	0	1.22	0.0	0	10.8	23	170	M	M	8	1	32	170
23	60	50	55	5	10	0	0.43	0.0	0	4.8	13	190	M	M	9	1	16	180
24	55	47	51	2	14	0	0.16	M	0	2.9	8	300	M	M	5	12	10	110
25	63	45	54	5	11	0	0.25	M	0	11.0	35	180	M	M	8	1	47	180
26	58	42	50	1	15	0	0.25	M	0	5.8	14	260	M	M	5	1	17	210
27	59	42	51	2	14	0	T	M	0	3.0	10	170	M	M	8	1	13	200
28	58	52	55	7	10	0	0.27	0.0	0	9.9	17	180	M	M	9	1	23	180
29	62	53	58	10	7	0	0.10	0.0	0	4.0	15	170	M	M	8	1	19	170
30	61	53	57	9	8	0	0.71	0.0	0	4.7	14	150	M	M	9	1	15	160
31	58	45	52	4	13	0	0.85	M	0	4.2	15	310	M	M	9	12	19	310
SM	2094	1496			222	10	6.12		0.0	141.5			M		177			
AV	67.5	48.3								4.6	FASTST		M	M	6		MAX(MPH)	
										MI SC	---->	# 35 180					# 47	180

NOTES:  
 # LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M. P. H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: HILLSBORO OR  
MONTH: OCTOBER  
YEAR: 2014  
LATITUDE: 45 32 N  
LONGITUDE: 122 57 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 57.9  
DPTR FM NORMAL: 6.4  
HIGHEST: 87 ON 6  
LOWEST: 42 ON 27, 26

[PRECIPITATION DATA]

TOTAL FOR MONTH: 6.12  
DPTR FM NORMAL: 2.94  
GRTST 24HR 1.44 ON 22-23  
SNOW, ICE PELLETS, HAIL  
TOTAL MONTH: 0.0 INCH  
GRTST 24HR 0.0  
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

- 1 = FOG OR MIST
- 2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
- 3 = THUNDER
- 4 = ICE PELLETS
- 5 = HAIL
- 6 = FREEZING RAIN OR DRIZZLE
- 7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
- 8 = SMOKE OR HAZE
- 9 = BLOWING SNOW
- X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0  
MAX 90 OR ABOVE: 0  
MIN 32 OR BELOW: 0  
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 18  
0.10 INCH OR MORE: 14  
0.50 INCH OR MORE: 4  
1.00 INCH OR MORE: 1

[HDD (BASE 65) ]

TOTAL THIS MO. 222  
DPTR FM NORMAL -197  
TOTAL FM JUL 1 277  
DPTR FM NORMAL -404

CLEAR (SCALE 0-3) 8  
PTCLDY (SCALE 4-7) 10  
CLOUDY (SCALE 8-10) 13

[CDD (BASE 65) ]

TOTAL THIS MO. 10  
DPTR FM NORMAL 9  
TOTAL FM JAN 1 405  
DPTR FM NORMAL 207

[PRESSURE DATA]

HIGHEST SLP 30.30 ON 12  
LOWEST SLP 29.32 ON 25

[REMARKS]

#FINAL-10-14#

National Weather Service  
 http://www.ncdc.noaa.gov.

WFO Monthly/Daily Climate Data

000  
 CXUS56 KPQR 011330  
 CF6HI 0  
 PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION:	HILLSBORO OR
MONTH:	NOVEMBER
YEAR:	2014
LATITUDE:	45 32 N
LONGITUDE:	122 57 W

TEMPERATURE IN F:							PCPN:	SNOW:	WIND			: SUNSHINE:		SKY	: PK WND				
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18	
								12Z		AVG MX 2MIN									
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR	
1	49	42	46	-2	19	0	0.03	M	0	2.3	8	310	M	M	10	12	9	300	
2	53	44	49	2	16	0	0.17	M	0	6.5	16	180	M	M	10	12	20	170	
3	56	51	54	7	11	0	0.26	0.0	0	9.1	15	180	M	M	8	1	19	170	
4	62	51	57	10	8	0	0.16	0.0	0	7.6	16	170	M	M	10	1	20	180	
5	62	51	57	10	8	0	0.03	0.0	0	0.8	6	320	M	M	8	12	7	320	
6	60	46	53	7	12	0	0.14	M	0	5.5	17	160	M	M	8	12	22	160	
7	59	39	49	3	16	0	0.00	0.0	0	2.0	9	10	M	M	6	12	12	20	
8	60	35	48	2	17	0	0.00	0.0	0	0.2	6	320	M	M	2	128	8	320	
9	56	41	49	3	16	0	0.02	M	0	3.6	13	290	M	M	9	128	17	310	
10	56	38	47	1	18	0	T	M	0	3.5	15	40	M	M	5	12	22	30	
11	47	34	41	-5	24	0	0.00	0.0	0	19.0	35	70	M	M	0		47	70	
12	41	31	36	-9	29	0	0.00	0.0	0	18.8	29	90	M	M	0		39	90	
13	38	32	35	-10	30	0	0.16	M	0	10.4	24	70	M	M	10	16	32	70	
14	44	23	34	-11	31	0	0.00	0.0	0	2.1	9	40	M	M	4	1	M	M	
15	44	21	33	-12	32	0	0.00	0.0	0	8.9	23	80	M	M	0		30	90	
16	49	19	34	-10	31	0	0.00	0.0	0	3.5	13	60	M	M	0		18	60	
17	50	21	36	-8	29	0	0.00	0.0	0	4.1	12	130	M	M	0		16	120	
18	42	21	32	-12	33	0	0.00	0.0	0	2.1	7	300	M	M	1		8	40	
19	51	32	42	-2	23	0	0.14	M	0	3.3	12	140	M	M	3	1	15	120	
20	50	36	43	0	22	0	0.03	M	0	1.0	6	330	M	M	10	128	7	320	
21	54	41	48	5	17	0	0.54	M	0	8.2	22	170	M	M	10	1	30	160	
22	56	38	47	4	18	0	0.14	M	0	3.3	15	280	M	M	7	128	19	280	
23	M	M	M	M	M	M	0.53	M	0	6.2	22	180	M	M	8	138	27	180	
24	54	49	52	10	13	0	T	M	0	4.1	13	170	M	M	10	128	16	170	
25	62	50	56	14	9	0	0.00	0.0	0	7.6	16	200	M	M	10	1	22	200	
26	60	51	56	14	9	0	T	0.0	0	3.6	12	170	M	M	6		14	160	
27	61	53	57	15	8	0	T	0.0	0	12.4	22	180	M	M	10	1	29	170	
28	55	41	48	7	17	0	0.38	M	0	11.5	24	300	M	M	10	1	31	320	
29	43	26	35	-6	30	0	0.10	M	0	4.9	16	300	M	M	4	1	19	300	
30	39	24	32	-9	33	0	0.00	0.0	0	9.0	26	80	M	M	0		36	80	
SM	1513	1081			579	0	2.83		0.0	185.1			M		179				
AV	52.2	37.3								6.2	FASTST		M	M	6		MAX(MPH)		
								MI SC	----	#	35	70					#	47	70

NOTES:  
 # LAST OF SEVERAL OCCURRENCES  
 COLUMN 17 PEAK WIND IN M. P. H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: HILLSBORO OR  
MONTH: NOVEMBER  
YEAR: 2014  
LATITUDE: 45 32 N  
LONGITUDE: 122 57 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 44.7  
DPTR FM NORMAL: 0.3  
HIGHEST: 62 ON 25, 5  
LOWEST: 19 ON 16

[PRECIPITATION DATA]

TOTAL FOR MONTH: 2.83  
DPTR FM NORMAL: -3.64  
GRTST 24HR 0.84 ON 31- 1  
SNOW, ICE PELLETS, HAIL  
TOTAL MONTH: 0.0 INCH  
GRTST 24HR 0.0  
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

- 1 = FOG OR MIST
- 2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
- 3 = THUNDER
- 4 = ICE PELLETS
- 5 = HAIL
- 6 = FREEZING RAIN OR DRIZZLE
- 7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
- 8 = SMOKE OR HAZE
- 9 = BLOWING SNOW
- X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0  
MAX 90 OR ABOVE: 0  
MIN 32 OR BELOW: 10  
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 15  
0.10 INCH OR MORE: 11  
0.50 INCH OR MORE: 2  
1.00 INCH OR MORE: 0

[HDD (BASE 65) ]

TOTAL THIS MO. 579  
DPTR FM NORMAL -41  
TOTAL FM JUL 1 856  
DPTR FM NORMAL -445

CLEAR (SCALE 0-3) 8  
PTCLDY (SCALE 4-7) 10  
CLOUDY (SCALE 8-10) 12

[CDD (BASE 65) ]

TOTAL THIS MO. 0  
DPTR FM NORMAL 0  
TOTAL FM JAN 1 405  
DPTR FM NORMAL 207

[PRESSURE DATA]

HIGHEST SLP 30.51 ON 15  
LOWEST SLP 29.41 ON 21

[REMARKS]

#FINAL-11-14#

National Weather Service - Climate Data Explanation of the Preliminary Monthly Climate Data (F6) Product

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WFO Monthly/Daily Climate Data

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CXUS56 KPQR 261547

CF6HI0

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION:	HILLSBORO OR
MONTH:	DECEMBER
YEAR:	2014
LATITUDE:	45 32 N
LONGITUDE:	122 57 W

TEMPERATURE IN F:							PCPN:	SNOW:	WIND:	SUNSHINE:	SKY:	PK WND:							
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18	
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR	
1	42	25	34	-7	31	0	0.00	0.0	0	1.4	6	310	M	M	6		7	180	
2	40	22	31	-9	34	0	0.00	0.0	0	6.9	20	60	M	M	1 1		28	80	
3	47	38	43	3	22	0	T	M	0	8.0	20	80	M	M	7		28	50	
4	43	37	40	0	25	0	1.07	M	0	1.5	8	110	M	M	9 1		9	90	
5	49	41	45	5	20	0	0.28	M	0	4.7	15	100	M	M	9 1		19	90	
6	56	39	48	8	17	0	0.45	M	0	6.5	17	160	M	M	9 12		22	170	
7	52	34	43	4	22	0	T	M	0	2.7	10	120	M	M	5 12		13	90	
8	49	37	43	4	22	0	T	M	0	1.6	8	290	M	M	7 1		9	250	
9	60	47	54	15	11	0	0.55	M	0	8.5	20	180	M	M	10 1		26	190	
10	59	44	52	13	13	0	0.68	M	0	9.9	29	160	M	M	8 1		36	160	
11	61	39	50	11	15	0	0.17	M	0	10.0	39	180	M	M	5 1		52	180	
12	53	38	46	8	19	0	0.01	M	0	1.9	13	170	M	M	8 12		16	170	
13	44	38	41	3	24	0	T	M	0	2.4	9	280	M	M	10 12		10	280	
14	52	33	43	5	22	0	0.00	0.0	0	9.6	22	90	M	M	2 1		28	90	
15	50	43	47	9	18	0	T	M	0	11.0	17	90	M	M	9		25	90	
16	50	41	46	8	19	0	0.02	M	0	3.5	9	90	M	M	7		12	120	
17	47	35	41	3	24	0	0.07	M	0	1.6	8	180	M	M	9 1		9	180	
18	51	43	47	9	18	0	0.23	M	0	5.2	17	230	M	M	9 1		23	220	
19	51	41	46	8	19	0	0.12	M	0	7.4	15	180	M	M	9 1		18	160	
20	57	47	52	14	13	0	1.11	M	0	12.7	21	170	M	M	10 1		27	190	
21	57	49	53	15	12	0	0.02	M	0	5.8	15	230	M	M	7 1		21	240	
22	54	42	48	10	17	0	0.03	M	0	1.9	7	180	M	M	9 12		9	180	
23	54	45	50	12	15	0	0.13	M	0	2.7	16	310	M	M	10 12		24	310	
24	47	40	44	6	21	0	0.69	M	0	5.9	16	280	M	M	9 1		20	280	
25	47	33	40	2	25	0	0.03	M	0	1.0	12	360	M	M	8 12		16	360	
26	46	41	44	6	21	0	0.01	M	0	1.1	7	310	M	M	10 1		13	250	
27	46	38	42	4	23	0	0.14	M	0	2.9	10	170	M	M	9 1		12	170	
28	48	33	41	3	24	0	0.04	M	0	3.7	12	250	M	M	6 1		16	220	
29	44	33	39	1	26	0	0.03	M	0	9.6	26	90	M	M	7 1		37	90	
30	35	21	28	-10	37	0	0.00	0.0	0	12.7	28	80	M	M	0		35	70	
31	39	19	29	-9	36	0	0.00	0.0	0	2.6	10	70	M	M	0		13	70	
SM	1530	1156			665	0	5.88	0.0	166.9				M		224				
AV	49.4	37.3							5.4	FASTST			M	M	7		MAX(MPH)		
								MI SC	----->	#	39	180					#	52	180

NOTES:

# LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M. P. H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: HILLSBORO OR  
MONTH: DECEMBER  
YEAR: 2014  
LATITUDE: 45 32 N  
LONGITUDE: 122 57 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 43.3  
DPTR FM NORMAL: 4.8  
HIGHEST: 61 ON 11  
LOWEST: 19 ON 31

[PRECIPITATION DATA]

TOTAL FOR MONTH: 5.88  
DPTR FM NORMAL: -0.86  
GRTST 24HR 1.12 ON 4- 5  
SNOW, ICE PELLETS, HAIL  
TOTAL MONTH: 0.0 INCH  
GRTST 24HR 0.0  
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

- 1 = FOG OR MIST
- 2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
- 3 = THUNDER
- 4 = ICE PELLETS
- 5 = HAIL
- 6 = FREEZING RAIN OR DRIZZLE
- 7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
- 8 = SMOKE OR HAZE
- 9 = BLOWING SNOW
- X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0  
MAX 90 OR ABOVE: 0  
MIN 32 OR BELOW: 4  
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 21  
0.10 INCH OR MORE: 12  
0.50 INCH OR MORE: 5  
1.00 INCH OR MORE: 2

[HDD (BASE 65) ]

TOTAL THIS MO. 665  
DPTR FM NORMAL -155  
TOTAL FM JUL 1 1521  
DPTR FM NORMAL -600

CLEAR (SCALE 0-3) 4  
PTCLDY (SCALE 4-7) 11  
CLOUDY (SCALE 8-10) 16

[CDD (BASE 65) ]

TOTAL THIS MO. 0  
DPTR FM NORMAL 0  
TOTAL FM JAN 1 405  
DPTR FM NORMAL 207

[PRESSURE DATA]

HIGHEST SLP 30.83 ON 30  
LOWEST SLP 29.11 ON 11

[REMARKS]

#FINAL-12-14#

National Weather Service - Climate Data Explanation of the Preliminary Monthly Climate Data (F6) Product

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WFO Monthly/Daily Climate Data

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CXUS56 KPQR 011330

CF6HI 0

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: HILLSBORO OR  
 MONTH: JANUARY  
 YEAR: 2015  
 LATITUDE: 45 32 N  
 LONGITUDE: 122 57 W

TEMPERATURE IN F:							PCPN:	SNOW:	WIND			SUNSHINE:		SKY	PK WND			
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	43	21	32	-6	33	0	0.00	0.0	0	2.3	8	30	M	M	0	8	11	40
2	41	24	33	-5	32	0	0.00	0.0	0	1.0	6	320	M	M	4	1	9	330
3	41	33	37	-2	28	0	T	M	0	0.6	6	310	M	M	10	1	8	320
4	50	38	44	5	21	0	0.14	M	0	6.7	17	170	M	M	10	1	24	180
5	54	38	46	7	19	0	T	M	0	7.8	20	170	M	M	7	12	24	170
6	48	39	44	5	21	0	0.00	0.0	0	1.0	7	300	M	M	10	12	7	300
7	53	31	42	3	23	0	0.00	0.0	0	1.1	6	300	M	M	5	12	7	40
8	50	29	40	1	25	0	0.00	0.0	0	1.3	10	80	M	M	5	12	16	110
9	49	33	41	2	24	0	0.00	0.0	0	2.6	8	290	M	M	0		9	300
10	44	34	39	-1	26	0	0.04	M	0	0.5	5	160	M	M	10	1	9	120
11	46	42	44	4	21	0	0.08	M	0	0.4	7	60	M	M	10	12	7	60
12	50	41	46	6	19	0	0.01	M	0	1.2	5	90	M	M	10	1	8	320
13	52	29	41	1	24	0	0.00	0.0	0	3.8	10	70	M	M	1	1	14	50
14	49	28	39	-1	26	0	0.00	0.0	0	5.6	15	90	M	M	0		18	90
15	41	27	34	-6	31	0	0.70	M	0	2.3	8	290	M	M	8	1	10	290
16	53	35	44	4	21	0	0.12	M	0	1.6	10	330	M	M	7	12	12	330
17	58	36	47	7	18	0	1.51	M	0	3.9	18	230	M	M	9	12	28	210
18	58	44	51	11	14	0	0.24	M	0	9.5	22	230	M	M	8	1	34	240
19	47	35	41	0	24	0	0.00	0.0	0	1.5	7	220	M	M	8	12	9	260
20	51	33	42	1	23	0	0.00	0.0	0	3.0	8	70	M	M	4	12	M	M
21	52	29	41	0	24	0	0.00	0.0	0	1.9	8	290	M	M	2		9	120
22	51	39	45	4	20	0	0.01	M	0	1.4	9	120	M	M	8		10	120
23	49	42	46	5	19	0	0.09	M	0	1.8	9	130	M	M	10	1	12	140
24	60	46	53	12	12	0	0.00	0.0	0	0.9	8	310	M	M	7	12	9	300
25	55	41	48	7	17	0	0.00	0.0	0	1.1	6	290	M	M	9	12	7	290
26	46	41	44	3	21	0	0.00	0.0	0	1.9	9	310	M	M	10	12	10	300
27	47	41	44	3	21	0	0.02	M	0	1.2	6	320	M	M	10	12	9	310
28	56	44	50	9	15	0	0.05	M	0	1.1	7	280	M	M	7	12	10	320
29	57	35	46	5	19	0	0.00	0.0	0	2.3	9	50	M	M	4	128	11	50
30	56	30	43	2	22	0	0.00	0.0	0	1.7	8	70	M	M	3	128	10	330
31	51	28	40	-2	25	0	0.00	0.0	0	2.3	9	290	M	M	3	12	11	290
SM	1558	1086			688	0	3.01		0.0	75.3			M		199			
AV	50.3	35.0								2.4	FASTST		M	M	6		MAX(MPH)	
								MI SC	----	#	22	230				#	34	240

NOTES:

# LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M. P. H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: HILLSBORO OR  
MONTH: JANUARY  
YEAR: 2015  
LATITUDE: 45 32 N  
LONGITUDE: 122 57 W

[TEMPERATURE DATA]

AVERAGE MONTHLY: 42.6  
DPTR FM NORMAL: 2.5  
HIGHEST: 60 ON 24  
LOWEST: 21 ON 1

[PRECIPITATION DATA]

TOTAL FOR MONTH: 3.01  
DPTR FM NORMAL: -3.05  
GRTST 24HR 1.52 ON 17-18  
SNOW, ICE PELLETS, HAIL  
TOTAL MONTH: 0.0 INCH  
GRTST 24HR 0.0  
GRTST DEPTH: 0

SYMBOLS USED IN COLUMN 16

- 1 = FOG OR MIST
- 2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
- 3 = THUNDER
- 4 = ICE PELLETS
- 5 = HAIL
- 6 = FREEZING RAIN OR DRIZZLE
- 7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
- 8 = SMOKE OR HAZE
- 9 = BLOWING SNOW
- X = TORNADO

[NO. OF DAYS WITH]

MAX 32 OR BELOW: 0  
MAX 90 OR ABOVE: 0  
MIN 32 OR BELOW: 10  
MIN 0 OR BELOW: 0

[WEATHER - DAYS WITH]

0.01 INCH OR MORE: 12  
0.10 INCH OR MORE: 5  
0.50 INCH OR MORE: 2  
1.00 INCH OR MORE: 1

[HDD (BASE 65) ]

TOTAL THIS MO. 688  
DPTR FM NORMAL -84  
TOTAL FM JUL 1 2209  
DPTR FM NORMAL -684

CLEAR (SCALE 0-3) 5  
PTCLDY (SCALE 4-7) 13  
CLOUDY (SCALE 8-10) 13

[CDD (BASE 65) ]

TOTAL THIS MO. 0  
DPTR FM NORMAL 0  
TOTAL FM JAN 1 0  
DPTR FM NORMAL 0

[PRESSURE DATA]

HIGHEST SLP 30.48 ON 19  
LOWEST SLP 29.71 ON 17

[REMARKS]

#FINAL-01-15#

National Weather Service - Climate Data These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.  
 Climatological Report (Daily)

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 CDUS46 KPQR 181241  
 CLIHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 440 AM PST TUE NOV 18 2014

.....  
... THE HILLSBORO OR CLIMATE SUMMARY FOR NOVEMBER 17 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2014

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
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.....  
 TEMPERATURE (F)  
 YESTERDAY  

MAXIMUM	50	309 PM	66	1995	52	-2	54
MINIMUM	21R	727 AM	21	1955	37	-16	37
AVERAGE	36				44	-8	46

PRECIPITATION (IN)							
YESTERDAY	0.00		1.23	1954	0.21	-0.21	
MONTH TO DATE	0.97				3.51	-2.54	
SINCE OCT 1	7.09				6.69	0.40	
SINCE JAN 1	28.43				30.20	-1.77	

SNOWFALL (IN)  
 YESTERDAY 0.0  
 MONTH TO DATE 0.0  
 SINCE SEP 1 0.0  
 SINCE JUL 1 0.0  
 SNOW DEPTH 0

DEGREE DAYS  
 HEATING  

YESTERDAY	29		21	8
MONTH TO DATE	347		325	22
SINCE JUL 1	624		1006	-382

COOLING  

YESTERDAY	0		0	0
MONTH TO DATE	0		0	0
SINCE JAN 1	405		198	207

.....  
 WIND (MPH)  

HIGHEST WIND SPEED	12	HIGHEST WIND DIRECTION	SE (130)
HIGHEST GUST SPEED	16	HIGHEST GUST DIRECTION	SE (120)

AVERAGE WIND SPEED 4.1

SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 0.0

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
NO SIGNIFICANT WEATHER WAS OBSERVED.

RELATIVE HUMIDITY (PERCENT)

HIGHEST 88 200 AM  
LOWEST 29 200 PM  
AVERAGE 59

THE HILLSBORO OR CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	51	62	1965
MINIMUM TEMPERATURE (F)	37	22	1944

SUNRISE AND SUNSET

NOVEMBER 18 2014.....SUNRISE 715 AM PST SUNSET 438 PM PST  
NOVEMBER 19 2014.....SUNRISE 717 AM PST SUNSET 437 PM PST

- INDICATES NEGATIVE NUMBERS.
- R INDICATES RECORD WAS SET OR TIED.
- MM INDICATES DATA IS MISSING.
- T INDICATES TRACE AMOUNT.

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National Weather Service - Climate Data These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.  
 Climatological Report (Daily)

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 CDUS46 KPQR 141142  
 CLIHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 341 AM PST WED JAN 14 2015

... THE HILLSBORO OR CLIMATE SUMMARY FOR JANUARY 13 2015 ...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2015

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
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TEMPERATURE (F)							
YESTERDAY							
MAXIMUM	52	244 PM	58	1973	47	5	56
MINIMUM	29	1130 PM	4	1930	33	-4	43
AVERAGE	41				40	1	50

PRECIPITATION (IN)							
YESTERDAY	0.00		0.79	1995	0.20	-0.20	
MONTH TO DATE	0.27				2.88	-2.61	
SINCE OCT 1	15.10				19.27	-4.17	
SINCE JAN 1	0.27				2.88	-2.61	

SNOWFALL (IN)							
YESTERDAY	0.0						
MONTH TO DATE	0.0						
SINCE DEC 1	0.0						
SINCE JUL 1	0.0						
SNOW DEPTH	0						

DEGREE DAYS							
HEATING							
YESTERDAY	24				25	-1	
MONTH TO DATE	316				337	-21	
SINCE JUL 1	1837				2458	-621	

COOLING							
YESTERDAY	0				0	0	
MONTH TO DATE	0				0	0	
SINCE JAN 1	0				0	0	

.....

WIND (MPH)							
HIGHEST WIND SPEED	10					E (70)	
HIGHEST GUST SPEED	14					NE (50)	

AVERAGE WIND SPEED 3.8

SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 0.1

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
FOG

RELATIVE HUMIDITY (PERCENT)

HIGHEST 100 100 AM  
LOWEST 59 200 PM  
AVERAGE 80

THE HILLSBORO OR CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	47	58	2011
MINIMUM TEMPERATURE (F)	33	8	1991 1930

SUNRISE AND SUNSET

JANUARY 14 2015..... SUNRISE 749 AM PST SUNSET 453 PM PST  
JANUARY 15 2015..... SUNRISE 748 AM PST SUNSET 455 PM PST

- INDICATES NEGATIVE NUMBERS.
- R INDICATES RECORD WAS SET OR TIED.
- MM INDICATES DATA IS MISSING.
- T INDICATES TRACE AMOUNT.

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National Weather Service - Climate Data These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.  
 Climatological Report (Daily)

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 CDUS46 KPQR 271150  
 CLIHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 349 AM PST TUE JAN 27 2015

... THE HILLSBORO OR CLIMATE SUMMARY FOR JANUARY 26 2015 ...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2015

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
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TEMPERATURE (F)

YESTERDAY							
MAXIMUM	46	404 PM	61	2003	48	-2	53
MINIMUM	41	1157 PM	6	1930	34	7	24
AVERAGE	44				41	3	39

PRECIPITATION (IN)

YESTERDAY	0.00	1.03	1964	0.16	-0.16
MONTH TO DATE	2.94			5.28	-2.34
SINCE OCT 1	17.77			21.67	-3.90
SINCE JAN 1	2.94			5.28	-2.34

SNOWFALL (IN)

YESTERDAY	0.0
MONTH TO DATE	0.0
SINCE DEC 1	0.0
SINCE JUL 1	0.0
SNOW DEPTH	0

DEGREE DAYS

HEATING			
YESTERDAY	21	24	-3
MONTH TO DATE	586	654	-68
SINCE JUL 1	2107	2775	-668

COOLING

YESTERDAY	0	0	0
MONTH TO DATE	0	0	0
SINCE JAN 1	0	0	0

WIND (MPH)

HIGHEST WIND SPEED	9	HIGHEST WIND DIRECTION	NW (310)
HIGHEST GUST SPEED	10	HIGHEST GUST DIRECTION	NW (300)

AVERAGE WIND SPEED 1.9

SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 1.0

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
FOG  
FOG W/VISIBILITY <= 1/4 MILE

RELATIVE HUMIDITY (PERCENT)

HIGHEST 100 1200 AM  
LOWEST 93 300 PM  
AVERAGE 97

THE HILLSBORO OR CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	49	64	1940
MINIMUM TEMPERATURE (F)	34	5	1957

SUNRISE AND SUNSET

JANUARY 27 2015..... SUNRISE 739 AM PST SUNSET 511 PM PST  
JANUARY 28 2015..... SUNRISE 738 AM PST SUNSET 512 PM PST

- INDICATES NEGATIVE NUMBERS.
- R INDICATES RECORD WAS SET OR TIED.
- MM INDICATES DATA IS MISSING.
- T INDICATES TRACE AMOUNT.

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 Climatological Report (Daily)

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 CDUS46 KPQR 281146  
 CLIHI 0

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 345 AM PST WED JAN 28 2015

.....  
... THE HILLSBORO OR CLIMATE SUMMARY FOR JANUARY 27 2015...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1929 TO 2015

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
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TEMPERATURE (F)							
YESTERDAY							
MAXIMUM	47	1159 PM	64	1940	49	-2	40
MINIMUM	41	634 AM	5	1957	34	7	28
AVERAGE	44				41	3	34

PRECIPITATION (IN)							
YESTERDAY	0.02		1.24	1954	0.16	-0.14	
MONTH TO DATE	2.96				5.44	-2.48	
SINCE OCT 1	17.79				21.83	-4.04	
SINCE JAN 1	2.96				5.44	-2.48	

SNOWFALL (IN)		
YESTERDAY	MM	
MONTH TO DATE	0.0	
SINCE DEC 1	0.0	
SINCE JUL 1	0.0	
SNOW DEPTH	0	

DEGREE DAYS			
HEATING			
YESTERDAY	21	24	-3
MONTH TO DATE	607	678	-71
SINCE JUL 1	2128	2799	-671

COOLING			
YESTERDAY	0	0	0
MONTH TO DATE	0	0	0
SINCE JAN 1	0	0	0

.....

WIND (MPH)			
HIGHEST WIND SPEED	6	HIGHEST WIND DIRECTION	NW (320)
HIGHEST GUST SPEED	9	HIGHEST GUST DIRECTION	NW (310)

AVERAGE WIND SPEED 1.2

SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 1.0

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
LIGHT RAIN  
FOG  
FOG W/VISIBILITY <= 1/4 MILE

RELATIVE HUMIDITY (PERCENT)

HIGHEST 100 1200 AM  
LOWEST 93 200 PM  
AVERAGE 97

THE HILLSBORO OR CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	49	69	1934
MINIMUM TEMPERATURE (F)	34	6	1957

SUNRISE AND SUNSET

JANUARY 28 2015..... SUNRISE 738 AM PST SUNSET 512 PM PST  
JANUARY 29 2015..... SUNRISE 736 AM PST SUNSET 514 PM PST

- INDICATES NEGATIVE NUMBERS.
- R INDICATES RECORD WAS SET OR TIED.
- MM INDICATES DATA IS MISSING.
- T INDICATES TRACE AMOUNT.

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## Daily Precipitation Normals and Records

Period of Record: Portland Airport 1941- 2012, Portland Downtown 1872-2012

(D= Daily, M= Month to Date, Y= Year to date, W= Water Year to date. Precipitation in units of inches)

D A Y	----- September -----								----- October -----								D A Y
	Normals <sup>1</sup> & Cumulative Totals				Record Daily Rainfall				Normals <sup>1</sup> & Cumulative Totals				Record Daily Rainfall				
	AIRPORT				Airport		Downtown		AIRPORT				Airport		Downtown		
	D	M	Y	W	Amt	Year	Amt	Year	D	M	Y	W	Amt	Year	Amt	Year	
1	.03	.03	20.47	34.59	1.48	1971	1.52	1971	.06	.06	21.97	.06	.98	1997	1.35	1997	1
2	.04	.07	20.51	34.63	.86	1979	.71	1913	.07	.13	22.04	.13	.79	1957	.68	1910	2
3	.03	.10	20.54	34.66	1.18	1945	1.22	1945	.06	.19	22.10	.19	.69	1967	1.11	1905	3
4	.04	.14	20.58	34.70	1.00	1959	1.68	1911	.07	.26	22.17	.26	1.00	1949	1.22	1949	4
5	.04	.18	20.62	34.74	.75	2009	1.24	1911	.07	.32	22.23	.32	.80	1950	1.11	1950	5
6	.05	.23	20.67	34.79	.60	1973	.92	1927	.07	.39	22.30	.39	1.24	1981	1.73	1981	6
7	.04	.27	20.71	34.83	1.55	2010	.86	2010	.07	.46	22.37	.46	.79	1962	1.78	1893	7
8	.04	.31	20.75	34.87	.27	1952	.49	1893	.07	.53	22.44	.53	.87	1955	1.32	1873	8
9	.04	.35	20.79	34.91	.84	1972	.75	1874	.07	.60	22.51	.60	1.66	1955	1.82	1955	9
10	.04	.39	20.83	34.95	1.18	1985	1.04	1985	.07	.67	22.58	.67	1.65	1959	2.93	1882	10
11	.05	.44	20.88	35.00	.44	1966	.79	1882	.08	.75	22.66	.75	.82	1968	1.52	1995	11
12	.04	.48	20.92	35.04	.23	1985	.72	1905	.08	.83	22.74	.83	1.11	2012	2.31	1882	12
13	.04	.52	20.96	35.08	.50	1955	.82	1920	.08	.91	22.82	.91	.43	2000	1.36	1908	13
14	.05	.57	21.01	35.13	2.03	1996	1.15	1996	.09	1.00	22.91	1.00	.51	1951	1.65	1908	14
15	.04	.61	21.05	35.17	.57	1955	1.48	1996	.09	1.09	23.00	1.09	1.06	1947	1.37	1906	15
16	.05	.66	21.10	35.22	.36	2002	1.03	1926	.09	1.18	23.09	1.18	.76	1956	1.19	1918	16
17	.05	.71	21.15	35.27	2.23	1969	2.41	1969	.10	1.28	23.19	1.28	.77	1947	2.11	1876	17
18	.05	.76	21.20	35.32	.97	2010	1.65	1921	.10	1.38	23.29	1.38	1.40	1979	1.57	1882	18
19	.05	.81	21.25	35.39	.97	1988	.96	1988	.11	1.49	23.40	1.49	1.32	1947	1.40	1947	19
20	.06	.87	21.31	35.43	1.56	1982	1.44	1982	.11	1.60	23.51	1.60	.99	1956	1.15	1956	20
21	.05	.92	21.36	35.48	.76	1972	1.27	1898	.11	1.71	23.62	1.71	1.10	1951	1.64	1876	21
22	.06	.98	21.42	35.54	.73	1948	1.07	1872	.11	1.82	23.73	1.82	1.31	1951	1.33	1951	22
23	.06	1.04	21.48	35.60	.86	1986	.97	1948	.12	1.94	23.85	1.94	.79	1951	1.12	1943	23
24	.05	1.09	21.53	35.65	.74	1950	.97	1973	.13	2.07	23.98	2.07	1.31	1943	1.57	2010	24
25	.06	1.15	21.59	35.71	1.48	1986	1.07	1877	.12	2.19	24.10	2.19	1.10	1955	1.79	1922	25
26	.07	1.22	21.66	35.78	1.11	1948	1.14	1940	.12	2.31	24.22	2.31	2.33	1994	2.10	1994	26
27	.06	1.28	21.72	35.84	1.30	1955	1.45	1955	.13	2.44	24.35	2.44	2.44	1994	3.20	1994	27
28	.06	1.34	21.78	35.90	1.08	2007	1.75	1927	.13	2.57	24.48	2.57	1.62	1982	1.58	1933	28
29	.07	1.41	21.85	35.97	.59	1951	.75	1889	.14	2.71	24.62	2.71	1.14	1997	1.41	1982	29
30	.06	1.47	21.91	36.03	1.68	2005	1.35	1953	.15	2.86	24.77	2.86	1.20	1997	1.16	1875	30
									.14	3.00	24.91	3.00	2.44	1994	2.68	1994	31
September				Airport		Downtown		October				Airport		Downtown			
Normal Precipitation				1.47		1.54		Normal Precipitation				3.00		3.42			
Wettest September				4.30	1986	5.52	1927	Wettest October				8.41	1994	11.63	1882		
Driest September				T	1993 <sup>2</sup>	0.00	1873	Driest October				0.19	1988	T	1895		
Snowiest September				--	--	--	--	Snowiest October				T	1955	0.6	1935		
September Airport Records...								October Airport Records...									
Greatest Rain in a Day				2.23" on 17 <sup>th</sup> Sept 1969				Greatest Rain in a Day				2.44" on 27 <sup>th</sup> & 31 <sup>st</sup> 1994					
Greatest Rain in 24 hrs				2.38" on 19-20 <sup>th</sup> Sept 1982				Greatest Rain in 24 hrs				4.44" on 26-27 <sup>th</sup> Oct 1994					
Greatest Snow in 24 hrs				no snow reported in September				Greatest Snow in 24 hrs				Trace on 31 <sup>st</sup> Oct. 1955					

<sup>1</sup> Normals listed for the Airport site (1981-2010 normals). Daily and cumulative averages are based on a daily value that is computed from normalizing the monthly total across the days of a month.

<sup>2</sup> Last year of multiple occurrences listed.

## Daily Precipitation Normals and Records

Period of Record: Portland Airport 1940-2012, Portland Downtown 1872-2012

(D= Daily, M= Month to Date, Y= Year to date, W= Water Year to date. Precipitation in units of inches)

D A Y	----- November -----								----- December -----								D A Y
	Normals <sup>1</sup> & Cumulative Totals				Record Daily Rainfall				Normal s <sup>1</sup> & Cumulative Totals				Record Daily Rainfall				
	AIRPORT				Airport		Downtown		AIRPORT				Airport		Downtown		
	D	M	Y	W	Amt	Year	Amt	Year	D	M	Y	W	Amt	Year	Amt	Year	
1	.15	.15	25.06	3.15	1.31	1984	1.35	2005	.21	.21	30.75	8.84	1.69	1987	1.58	1987	
2	.15	.30	25.21	3.30	1.33	1984	1.67	1902	.20	.41	30.95	9.04	2.08	1980	1.87	2007	
3	.16	.46	25.37	3.46	1.88	1983	2.22	1983	.20	.61	31.15	9.24	1.69	1980	3.08	2007	
4	.16	.62	25.53	3.62	1.87	1969	1.95	1969	.20	.81	31.35	9.44	1.56	1966	2.25	1966	
5	.17	.79	25.70	3.79	1.12	2006	1.62	1877	.19	1.00	31.54	9.63	1.80	1981	2.27	1933	
6	.17	.96	25.87	3.96	2.53	2006	4.84	2006	.19	1.19	31.73	9.82	1.12	1991	2.43	1923	
7	.18	1.14	26.05	4.14	1.07	2009	3.10	1885	.19	1.38	31.92	10.01	.86	1996	.98	1935	
8	.18	1.32	26.23	4.32	1.38	1968	2.05	1937	.18	1.56	32.10	10.19	.89	1971	2.12	1929	
9	.18	1.50	26.41	4.50	1.40	1973	1.80	1928	.18	1.74	32.28	10.37	1.42	2010	2.25	1877	
10	.19	1.69	26.60	4.69	1.30	1962	1.52	1962	.18	1.92	32.46	10.55	1.43	1992	2.00	1995	
11	.19	1.88	26.79	4.88	2.01	1995	2.01	1995	.17	2.09	32.63	10.72	1.30	2010	1.71	1946	
12	.18	2.06	26.97	5.06	.94	2008	1.54	2008	.18	2.27	32.81	10.90	.93	1973	4.07	1882	
13	.19	2.25	27.16	5.25	1.37	1941	1.53	1990	.17	2.44	32.98	11.07	1.84	1977	6.68	1882	
14	.19	2.44	27.35	5.44	1.28	1948	2.18	1876	.18	2.62	33.16	11.25	1.35	1946	1.56	1946	
15	.19	2.63	27.54	5.63	2.43	1950	2.95	1950	.18	2.80	33.34	11.43	1.84	1982	1.61	1982	
16	.19	2.82	27.73	5.82	1.13	1953	1.42	1950	.17	2.97	33.51	11.60	1.19	1994	1.33	1997	
17	.19	3.01	27.92	6.01	1.46	1946	1.91	1875	.17	3.14	33.68	11.77	1.02	1972	2.26	1885	
18	.20	3.21	28.12	6.21	1.99	1946	1.95	1946	.18	3.32	33.86	11.95	1.01	1941	1.66	1932	
19	.20	3.41	28.32	6.41	2.69	1996	3.20	1996	.17	3.49	34.03	12.12	1.72	1953	2.01	1895	
20	.19	3.60	28.51	6.60	1.50	1962	3.41	1921	.18	3.67	34.21	12.30	1.28	1961	2.95	1925	
21	.20	3.80	28.71	6.80	1.57	1992	1.58	1992	.17	3.84	34.38	12.47	1.99	1955	2.29	1955	
22	.20	4.00	28.91	7.00	2.35	2011	2.62	2011	.17	4.01	34.55	12.64	1.50	1964	2.20	1936	
23	.20	4.20	29.11	7.20	1.80	1942	2.69	1874	.17	4.18	34.72	12.81	1.19	1971	2.40	1872	
24	.19	4.39	29.30	7.39	2.31	1960	2.64	1960	.17	4.35	34.89	12.98	1.72	1980	1.90	1980	
25	.21	4.60	29.51	7.60	2.11	1998	2.07	1998	.17	4.52	35.06	13.15	1.73	1980	1.82	1980	
26	.20	4.80	29.71	7.80	2.26	1945	3.60	1883	.17	4.69	35.23	13.32	1.08	1996	3.99	1937	
27	.21	5.01	29.92	8.01	1.97	1984	1.91	1984	.16	4.85	35.39	13.48	2.17	1942	2.42	1965	
28	.20	5.21	30.12	8.21	1.41	2001	1.65	2001	.17	5.02	35.56	13.65	.94	2005	3.16	1998	
29	.21	5.42	30.33	8.42	.67	1942	3.05	1875	.16	5.18	35.72	13.81	1.66	1983	2.24	1996	
30	.21	5.63	30.54	8.63	1.63	1994	1.70	1994	.15	5.33	35.87	13.96	1.50	2002	1.72	2005	
									.16	5.49	36.03	14.12	1.32	1996	2.79	1875	
	<b>November</b>				<b>Airport</b>		<b>Downtown</b>		<b>December</b>				<b>Airport</b>		<b>Downtown</b>		
	Normal Precipitation				<b>5.63</b>		<b>6.74</b>		Normal Precipitation				<b>5.49</b>		<b>6.94</b>		
	Wettest November				11.92	2006	15.77	1875	Wettest December				13.35	1996	20.14	1882	
	Driest November				0.77	1976	0.36	1936	Driest December				1.38	1976	0.88	1876	
	Snowiest November				8.2	1955	7.0	1977	Snowiest December				15.7	1968	34.1	1884	
	<b>November Airport Records...</b>								<b>December Airport Records...</b>								
	Greatest Rain in a Day				2.69" on 19 <sup>th</sup> Nov. 1996				Greatest Rain in a Day				2.17" on 27 <sup>th</sup> Dec. 1942				
	Greatest Rain in 24 hrs				4.10" on 18-19 <sup>th</sup> Nov. 1996				Greatest Rain in 24 hrs				2.59" on 12-13 <sup>th</sup> Dec. 1977				
	Greatest Snow in 24 hrs				7.4" on 21-22 <sup>nd</sup> 1977				Greatest Snow in 24 hrs				8.0 on 19 <sup>th</sup> Dec. 1964				

<sup>1</sup> Normals listed for the Airport site (1981-2010 normals). Daily and cumulative averages are based on a daily value that is computed from normalizing the monthly total across the days of a month.

<sup>2</sup> Last year of multiple occurrences listed.

USDA Field Office Climate Data

WETS Station : BEAVERTON 2 SSW, OR0595                      Creation Date: 01/06/2015  
 Latitude: 4527                      Longitude: 12249                      Elevation: 00270  
 State FIPS/County(FIPS): 41067                      County Name: Washington  
 Start yr. - 1971                      End yr. - 2000

Month	Temperature (Degrees F.)				Precipitation (Inches)		avg # of days w/.1 or more	avg total snow fall
	avg daily max	avg daily min	avg	avg	30% chance will have			
					less than	more than		
January	46.1	33.8	40.0	5.83	3.53	7.07	12	0.6
February	50.7	35.3	43.0	4.84	3.06	5.84	12	0.7
March	56.1	37.3	46.7	4.06	3.03	4.74	11	0.1
April	61.1	40.2	50.7	2.79	1.90	3.32	9	0.0
May	67.2	45.4	56.3	2.25	1.40	2.72	7	0.0
June	72.7	50.5	61.6	1.62	1.02	1.95	5	0.0
July	79.2	54.3	66.8	0.68	0.27	0.84	2	0.0
August	79.9	54.3	67.1	0.84	0.22	0.98	2	0.0
September	74.8	50.3	62.6	1.64	0.70	2.03	5	0.0
October	63.8	43.4	53.6	2.92	1.52	3.57	8	0.0
November	52.0	38.5	45.3	6.07	4.08	7.25	13	0.5
December	46.0	34.5	40.3	6.41	4.42	7.64	12	0.5
Annual					34.88	44.05	--	----
Average	62.5	43.2	52.8				--	----
Average				39.95			92	2.2

GROWING SEASON DATES

Probability	Temperature		
	24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *	1/29 to 12/21 326 days	3/ 3 to 11/24 265 days	4/12 to 11/ 4 206 days
70 percent *	1/20 to 12/30 343 days	2/20 to 12/ 5 287 days	4/ 4 to 11/12 222 days

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

total 1972-2007 prcp

Station : OR0595, BEAVERTON 2 SSW

----- Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
72										0.82	4.49	9.18	14.49
73	4.27	1.85	2.99	0.90	0.97	1.53	0.04	0.94	3.59	2.95		9.97	30.00
74	9.15	4.68	5.32	2.62	2.14	0.89	1.69	0.06	0.12	1.62	7.11	6.32	41.72
75	7.85	5.07	4.39	1.76	1.91	0.91	0.82	2.06	0.00	4.67	4.01	M5.71	39.16
76	5.32	5.05	3.13	2.50	1.92	0.58	1.18	2.78	0.91	1.29	1.33	1.53	27.52
77	1.26	2.22	3.21	0.86	4.11	1.35	0.58	3.07	3.69	2.66	4.95	8.50	36.46
78	5.51	4.25	1.54	4.15	3.51	0.68	1.08	2.51	3.73	0.52	M3.28	3.06	33.82
79	1.28	6.72	2.07	2.76	1.86	0.59	0.25	1.17	2.35	5.34	3.74	6.34	34.47
80	9.05	4.29	M3.87	3.34	1.96	2.71	0.17	0.28	1.72	1.32	6.75	8.89	44.35
81	2.00	3.90	2.63	2.20	2.12	3.54	0.17	0.05	2.71	4.50	M5.04	M9.35	38.21
82	6.55	6.22	M2.64	4.48	0.76	1.13	0.97	M1.08	3.31	3.90	4.28	M9.26	44.58
83	M5.23	9.88	7.21	1.91	1.80	2.33	2.27	2.13	0.52	1.68	M11.57	5.88	52.41
84	2.10	3.95	3.75	3.47	3.91	4.35	0.00	0.16	1.68	3.48	10.68	3.09	40.62
85	0.37	2.57	4.00	0.93			M0.31	1.12	1.95	2.74	M3.57	2.31	19.87
86	5.66	5.95	2.72	1.24	2.12	0.42	1.28	0.04	3.43	2.34	6.56	4.44	36.20
87	8.84	5.18	6.35	1.79	2.31	0.56	M1.54	0.01	0.34	0.47	2.16	9.61	39.16
88	6.73	1.20	3.38	3.47	2.91	2.58	0.15	0.15	1.08	0.13	7.88	2.92	32.58
89	M4.30	M2.27	M6.52	1.28	1.92	0.85	0.99	0.94	1.00	1.47	3.45	3.08	28.07
90	9.96	5.15	3.42	3.26	1.87	2.37	0.48	0.98	0.58	4.27	4.27	2.69	39.30
91	3.19	4.69	4.17		2.83	2.38	0.13	0.51	0.19	2.10	6.43	4.26	30.88
92		4.99	1.23	M5.17	0.10	1.36	0.40	0.55	1.12	2.44	5.45	M7.23	30.04
93	M4.04	0.52	M5.17	M5.11	M3.57	M1.47	M1.26	0.24	0.00	0.85	2.17	7.08	31.48
94	4.59	5.71	2.76	2.16	0.97	1.41	0.06	0.09	1.03	6.26	7.05	7.33	39.42
95	7.48	4.00	4.92	3.77	1.43	2.54	1.06	1.01	1.40	3.68	9.84	7.84	48.97
96	7.26	12.12	3.16	6.22	5.03	0.84	0.60	0.23	2.80	5.63	11.01	13.64	68.54
97	10.04	1.78	7.79	3.02	1.83	2.64	0.97	0.16	M1.47	7.72	5.48	4.80	47.70
98	8.44	5.73	4.30	1.54	4.91	1.86	0.66	0.04	0.86	3.51	12.22	9.09	53.16
99	8.71	10.62	4.99	2.16	2.07	0.98	0.34	0.89	0.15	2.24	7.57	4.61	45.33
0	7.31	6.17	3.32	1.96	2.45	1.10	0.07	0.26	1.53	4.51	3.01	4.56	36.25
1	1.91	1.82	3.20	M2.30	1.25	1.78	0.60	0.81	0.68	3.52	7.68	M9.20	34.75
2	M8.06	4.35	4.11	2.69	1.73	1.46	0.07	0.12	M0.68	0.53	M2.49	12.50	38.79
3	7.51	3.55	5.92	M6.80	M0.89	M0.26		1.14	M1.02	M3.84	5.70	M9.48	46.11
4	M3.81	4.56	2.24	M1.62	M1.29	M1.16	0.00	M3.12		M3.87		M3.60	25.27
5	2.61	M0.61	3.52	3.41	M4.20	1.89	0.15	0.37	1.89	M2.81	M6.67	M4.96	33.09
6	13.94	2.57	M2.03	M1.10	2.75	0.78	0.18	0.05	0.99	M1.27	M12.40	M6.36	44.42
7	2.46	5.17	M1.92										9.55

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APPENDIX E  
WETLAND DELINEATION DATA SHEETS

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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-15  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Agriculture field - flat Local relief (concave, convex, none): None Slope (%): 0-1%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
--	--	---	---

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
5. _____				
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )				Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
UPL species _____ x 5 = _____				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>5ft</u> )				Prevalence Index = B/A = _____
1. <u>Agriculture crop</u>	<u>1</u>			<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Clover species</u>	<u>T</u>			
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = _____, 20% = _____	<u>1</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. _____				
2. _____				
_____ = Total Cover	<u>0</u>			
% Bare Ground in Herb Stratum <u>99</u>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-16  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Creek bank Local relief (concave, convex, none): None Slope (%): 0-1%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
		<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Data plot along creek side bank just below agriculture field.		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus latifolia</u>	60	Y	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15ft</u> )</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
50% = _____, 20% = _____	_____ = Total Cover			
<b>Herb Stratum (Plot size: <u>5ft</u> )</b>				
1. <u>Phalaris arundinacea</u>	99	Y	FACW	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Juncus tenuis</u>	1	N	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u> = Total Cover			
<b>Woody Vine Stratum (Plot size: <u>n/a</u> )</b>				
1. _____				
2. _____				
			<u>0</u> = Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____	
Remarks:				



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-17  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-1%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_ , Soil \_\_\_\_\_ , or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
--	--	---	---

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
5. _____				
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )				Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
UPL species _____ x 5 = _____				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5ft</u> )				Hydrophytic Vegetation Indicators:
1. <u>Agriculture crop</u>	<u>1</u>			<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Clover species</u>	<u>T</u>			<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
50% = _____, 20% = _____	<u>1</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )				Hydrophytic Vegetation Present?
1. _____				Yes _____ No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>99</u>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-18  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: <u>1-2 feet below agriculture field elevation</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
50% = _____, 20% = _____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15ft</u> )</b>				
1. <u>Crataegus monogyna</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____				
3. _____				
50% = <u>2.5</u> , 20% = <u>1</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5ft</u> )</b>				
1. <u>Alopecurus pratensis</u>	<u>90</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agropyron repens</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
3. <u>Festuca rubra/arundinacea</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
4. <u>Agrostis sp.</u>	<u>T</u>	<u>--</u>	<u>--</u>	
5. <u>Epilobium watsonii</u>	<u>T</u>	<u>--</u>	<u>FACW</u>	
6. <u>Galium aparine</u>	<u>T</u>	<u>--</u>	<u>FACU</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>47</u> , 20% = <u>18.8</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u> )</b>				
1. _____				
2. _____				
0 = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				
Remarks: _____				



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-19  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Hillslope, terrace Local relief (concave, convex, none): None Slope (%): 2-3%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix species</u>	90	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____				
5. _____				
50% = <u>45</u> , 20% = <u>18</u>	90	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	30	Y	FACU	Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species <u>90</u> x 3 = <u>270</u>
5. _____				FACU species <u>30</u> x 4 = <u>120</u>
50% = <u>15</u> , 20% = <u>6</u>	30	= Total Cover		
UPL species _____ x 5 = _____				Column Totals: <u>120</u> (A) <u>390</u> (B)
				Prevalence Index = B/A = <u>3.25</u>
Herb Stratum (Plot size: <u>5ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>None</u>				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____				<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>
6. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____				
9. _____				
10. _____				
11. _____				
50% = _____, 20% = _____	0	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	0	= Total Cover		
% Bare Ground in Herb Stratum <u>100</u>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-20  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cornelius and Kinton Silt Loams, 12-20% Slopes NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks:	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix species</u>	75	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
50% = <u>37</u> , 20% = <u>15</u>	<u>75</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. <u>Rubus armeniacus</u>	15	Y	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u> = Total Cover			
Herb Stratum (Plot size: <u>5ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Alopecurus pratensis</u>	94	Y	FAC	
2. <u>Festuca rubra/arundinacea</u>	2	N	FAC	
3. <u>Epilobium watsonii</u>	2	N	FACW	
4. <u>Juncus tenuis</u>	2	N	FAC	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 27, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-21  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Foot of slope Local relief (concave, convex, none): Concave Slope (%): 2-3  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: <u>Data plot east and just upslope of drainage feature.</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	5	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15ft</u> )</b>				
1. <u>Crataegus monogyna</u>	10	Y	FAC	
2. <u>Rubus armeniacus</u>	5	Y	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = <u>7.5</u> , 20% = <u>3</u> <u>15</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5ft</u> )</b>				
1. <u>Alopecurus pratensis</u>	100	Y	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u> <u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u> )</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks: \_\_\_\_\_

**SOIL**

Sampling Point: DP-21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	7.5 YR 3/2	100	--	--	--	--	Silt loam	
11-17	7.5 YR 4/2	90	7.5 YR 4/6	8	C	M	Silt loam	
			5 YR 5/8	2	C	M	Silt loam	

<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> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input checked="" type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No oxidized rhizospheres

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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 13, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-22  
 Investigator(s): Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Foot of slope Local relief (concave, convex, none): Flat Slope (%): <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks: Data plot just east of drainage feature.			

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	15	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B)
2. <u>Crataegus monogyna</u>	25	Y	FAC	
3. _____				
4. _____				
5. _____				
50% = <u>20</u> , 20% = <u>8</u>	40	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15ft</u> )				
1. <u>Crataegus monogyna</u>	5	Y	FAC	
2. <u>Rubus armeniacus</u>	20	Y	FACU	
3. _____				
4. _____				
5. _____				
50% = <u>12.5</u> , 20% = <u>5</u>	25	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Alopecurus pratensis</u>	60	Y	FAC	
2. <u>Oenanthe sarmentosa</u>	2	N	OBL	
3. <u>Phalaris arundinacea</u>	20	Y	FACW	
4. <u>Polystichum munitum</u>	T	--	FACU	
5. <u>Rosa eglanteria</u>	15	N	FACW	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>48.5</u> , 20% = <u>19.4</u>	97	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
_____ = Total Cover	0			
% Bare Ground in Herb Stratum <u>3</u>				

Remarks:



**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 28, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-23  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Flat Slope (%): <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cornelius and Kinton Silt Loams, 12-20% Slopes NWI classification: None  
 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 Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: <u>Outside ash boundary</u>	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____				
5. _____				
50% = _____, 20% = _____	<u>0</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )				Prevalence Index worksheet:
1. <u>Crataegus douglasii</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Crataegus monogyna</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	OBL species <u>0</u> x 1 = <u>0</u>
3. <u>Fraxinus latifolia</u>	<u>T</u>	<u>--</u>	<u>--</u>	FACW species <u>0</u> x 2 = <u>0</u>
4. <u>Rubus ursinus</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	FAC species <u>35</u> x 3 = <u>105</u>
5. _____				FACU species <u>12</u> x 4 = <u>48</u>
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u> = Total Cover			UPL species <u>2</u> x 5 = <u>10</u>
Herb Stratum (Plot size: <u>5ft</u> )				Column Totals: <u>49</u> (A) <u>163</u> (B)
1. <u>Senecio jacobaea</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	Prevalence Index = B/A = <u>3.33</u>
2. <u>Hypericum perforatum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>2</u> , 20% = <u>0.8</u>	<u>4</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u> )				
1. _____				
2. _____				
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum <u>96</u>				
Remarks:				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>

**SOIL**

Sampling Point: DP-23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10 YR 3/2	99	5 YR 6/8	1	C	M	Silt loam	
10-13	10 YR 5/2	98	7.5 YR 5/8	2	C	M	Silt loam	
13-16	10 YR 5/4	90	7.5 YR 5/8	10	C	M	Silt loam	

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>  X  </u>
--	---

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b> Yes _____ No <u>  X  </u>
Surface Water Present?    Yes _____ No <u>  X  </u> Depth (inches): _____		
Water Table Present?        Yes _____ No <u>  X  </u> Depth (inches): _____		
Saturation Present? (includes capillary fringe)    Yes _____ No <u>  X  </u> Depth (inches): _____		

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

Remarks:

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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 28, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-24  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Flat Slope (%): 2  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cornelius and Kinton Silt Loams, 12-20% Slopes NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____		
Remarks: Near east boundary of where ash saplings/trees start to drop out.		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	5	Y	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
2. <u>Quercus garryana</u>	2	Y	FACU	
3. _____				
4. _____				
5. _____				
50% = <u>3.5</u> , 20% = <u>1.25</u>	<u>7</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15ft</u> )				
1. <u>Fraxinus latifolia</u>	40	Y	FACW	
2. <u>Spirea douglasii</u>	15	Y	FACW	
3. <u>Crataegus monogyna</u>	12	N	FAC	
4. <u>Rubus ursinus</u>	5	N	FACU	
5. _____				
50% = <u>36</u> , 20% = <u>14.4</u>	<u>72</u> = Total Cover			
Herb Stratum (Plot size: <u>5ft</u> )				
1. <u>Alopecurus pratensis</u>	100	Y	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = _____, 20% = _____	<u>100</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation x 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
Remarks:				



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 13, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-25  
 Investigator(s): Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): convex Slope (%): 2-3  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Outside ash boundary</u>	

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Crataegus monogyna</u>	20	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15ft</u> )				
1. <u>Crataegus monogyna</u>	15	Y	FAC	
2. <u>Rubus armeniacus</u>	5	Y	FACU	
3. _____				
4. _____				
5. _____				
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u> = Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Alopecurus pratensis</u>	90	Y	FAC	
2. <u>Hypericum perforatum</u>	2	N	FACU	
3. <u>Vicia sp.</u>	1	--	FAC	
4. <u>Geranium lucidum</u>	2	N	--	
5. <u>Barbarea vulgaris</u>	5	N	FAC	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u> = Total Cover			
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: _____				

**SOIL**

Sampling Point: DP-25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	7.5 YR 3/3	100						
6-16	7.5 YR 4/3	99	7.5 YR 6/8	1	C	M	Silt loam	

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>  X  </u>
--	---

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <u>  X  </u>
Surface Water Present?    Yes _____ No <u>  X  </u> Depth (inches): _____	
Water Table Present?    Yes _____ No <u>  X  </u> Depth (inches): _____	
Saturation Present? (includes capillary fringe)    Yes _____ No <u>  X  </u> Depth (inches): _____	

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

Remarks:



**SOIL**

Sampling Point: DP-26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	7.5 YR 3/2	99	7.5 YR 5/8				Silt loam	
8-16	7.5 YR 4/2	95	5 YR 5/8	5	C	M	Silt loam	Soil saturated
16-20	7.5 YR 4/2	80	5 YR 5/8	20	C	M	Silt loam	Soil saturated

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input checked="" type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 18	
Saturation Present? (includes capillary fringe)    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 8-18	

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

Remarks:

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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-06  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
UPL species _____ x 5 = _____				Column Totals: _____ (A) _____ (B)
<b>Herb Stratum (Plot size: <u>n/a</u>)</b>				Prevalence Index = B/A = _____
1. <u>Clover species</u>	<u>1</u>			
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>1</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>99%</u>				
				<b>Hydrophytic Vegetation Indicators:</b>
				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
				<input type="checkbox"/> 2 - Dominance Test is >50%
				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Based on lack of hydric soils and lack of hydrology, it is unlikely that hydrophytic plants would predominate in this area if left undisturbed.				



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-07  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: PEMf  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	0 = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	0 = Total Cover			
Herb Stratum (Plot size: <u>n/a</u> )	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Clover species</u>	1	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	1 = Total Cover			
Woody Vine Stratum (Plot size: <u>n/a</u> )	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>99</u>				

Remarks: Based on position in the landscape, hydric soils, hydrology and nearby hydrophytic vegetation (offsite to the east), it is reasonably likely that hydrophytic plants would predominate in this area if left undisturbed.



**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-08  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation , Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		
Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.		

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	0	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	0	= Total Cover		
Herb Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Clover species</u>	1	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	1	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____	0	= Total Cover		
% Bare Ground in Herb Stratum <u>99</u>				

Remarks: Based on lack of hydrology, it is unclear whether hydrophytic plants would predominate in this area if left undisturbed.

**SOIL**

Sampling Point: DP-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	7.5 YR 3/1	100	--	--	--	--	Silt loam	
8-16	7.5 YR 3/1	60	7.5YR 6/1	35	D	M	Silt loam	
			7.5 YR 5/8	5	C	M	Silt loam	

<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.

<p><b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b></p> <p><input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12) <input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)</p>	<p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic</p>
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<p><b>Restrictive Layer (if present):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p><b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
---	--

Remarks:

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Other (Explain in Remarks)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p> <p><input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)</p> <p><input type="checkbox"/> Frost-Heave Hummocks (D7)</p>
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<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p><b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No indicators found.

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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-09  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: PEMf  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____		

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	0	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
50% = _____, 20% = _____	0	= Total Cover		
UPL species _____ x 5 = _____				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>n/a</u> )				Prevalence Index = B/A = _____
1. <u>Clover species</u>	1			
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	0	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	0	= Total Cover		
% Bare Ground in Herb Stratum <u>99</u>				

Remarks: Based on position in the landscape, hydric soils, hydrology and nearby hydrophytic vegetation (offsite to the east), it is likely that hydrophytic plants would predominate in this area if left undisturbed.

**SOIL**

Sampling Point: DP-09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	7.5 YR 4/1	98	2.5 YR 3/6	2	C	M	Silt loam	Very sparse nodules

<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> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation Present? (includes capillary fringe)    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-6</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Capillary fringe at 6 inches, water table at 10.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region**

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-10  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ _____ = Total Cover	0			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ _____ = Total Cover	0			
<b>Herb Stratum</b> (Plot size: <u>n/a</u> ) 1. <u>Clover species</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = _____, 20% = _____ _____ = Total Cover	1			<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>99</u>	0			

Remarks: Based on lack of hydrology, it is unclear whether hydrophytic plants would predominate in this area if left undisturbed.







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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 4, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-13  
 Investigator(s): Jeff Payson Section, Township, Range: Sec. 6 T2S R1W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: PEMf  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft.</u> )				
1. <u>Rorippa sp.</u>	<u>T</u>	<u>--</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>99</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks: 2-3 Rorippa plants were noted in this area. Based on position in the landscape, hydrology, presence of hydric soils, early growth of OBL wetland plants in the area plus offsite hydrophytic vegetation immediately east of the project site boundary (2m distant across a ditch), it can be reasonably assumed that if left unmanaged, the area would develop a predominance of hydrophytic vegetation.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: November 17, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-14  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Agriculture field - flat Local relief (concave, convex, none): None Slope (%): 0-1%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: PEMf  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>n/a</u> ) 1. <u>Agriculture crop</u> 1      -- 2. <u>Trifolium pratense</u> 2      --      FACU 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>1.5</u> , 20% = <u>0.6</u> <u>3</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>97</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks: Based on lack of hydrology, it is uncertain whether hydrophytic plants would predominate in this area if left undisturbed.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-01A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation and hydric soils assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape, hydrology, and borderline hydric soil, it is likely that hydrophytic plants would predominate in this area if left undisturbed long enough for hydric soils to fully develop.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-03A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation and hydric soils assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape and hydrology, it is likely that hydrophytic plants would predominate in this area if left undisturbed long enough for hydric soils to develop.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-04  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Drainage swale Local relief (concave, convex, none): Convex Slope (%): 1%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____		

Remarks: Hydrology is manipulated and maintained. This location is on the margin of the main north-south drainage feature. The data plot is 2 ft. lower in elevation than adjacent agriculture field to west.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix sp.</u>	90	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <u>Prunus emarginata</u>	5	N	FACU	
3. <u>Malus fusca</u>	5	N	FACW	
4. _____				
5. _____				
50% = <u>50</u> , 20% = <u>20</u>				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>None</u>				Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
50% = _____, 20% = _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Juncus effusus</u>	5	Y	FACW	___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Carex species</u>	5	Y	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% = <u>5</u> , 20% = <u>2</u>				
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input checked="" type="checkbox"/> No _____
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>90</u>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-04A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
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Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-06A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape, hydric soils, and hydrology, it is likely that hydrophytic plants would predominate in this area if left undisturbed.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-07A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft</u>)</b> 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-14A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft</u>)</b> 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-13A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape, hydric soils, and hydrology, it is likely that hydrophytic plants would predominate in this area if left undisturbed.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-15A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5 ft</u>)</b> 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>n/a</u>)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape, hydric soils, and hydrology, it is likely that hydrophytic plants would predominate in this area if left undisturbed.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 26, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-16A  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): Flat, <1  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation assumed to re-establish if drain tile removed and area left undisturbed. Drain tile is used on the project site as shown on Figure 8 of the Wetland Delineation Report.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____ <u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 50% = _____, 20% = _____ <u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> ) 1. <u>Trifolium pratense</u> <u>5</u> Yes      FACU 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 50% = <u>2.5</u> , 20% = <u>1</u> <u>5</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> ) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				

Remarks: Based on position in the landscape, hydric soils, and hydrology, it is likely that hydrophytic plants would predominate in this area if left undisturbed.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: October 24, 2014  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-01  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Depressional area Local relief (concave, convex, none): Slightly concave Slope (%): 1-2%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Delena Silt Loam, 3-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____		

Remarks: Depressional area at toe of slope in agriculture field alongside 175<sup>th</sup> Ave, ponded nearby water, very soft soils. West edge of depressional area bordered by 5'-6' roadside embankment. Drain tile present in immediate area and data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation and hydric soils assumed to re-establish if drain tile removed and area left undisturbed.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft</u> )	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Unidentified planted crop just sprouting</u>	<u>1</u>	_____	<u>N/A</u>	
2. <u>Clover species</u>	<u>T</u>	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>1</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>99</u>	<u>0</u>	= Total Cover		

Remarks: Based on position in the landscape and hydrology, it is likely that wetland plants would predominate in this area if left undisturbed long enough for hydric soils to develop.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 27, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-02B  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Depressional area Local relief (concave, convex, none): Slightly concave Slope (%): 1-2%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cornelius and Kinton Silt Loams, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation  , Soil  , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_ , Soil \_\_\_\_\_ , or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Depressional area at toe of slope in agriculture field alongside 175<sup>th</sup> Ave, ponded nearby water, very soft soils. West edge of depressional area bordered by 5'-6' roadside embankment. Drain tile present in immediate area and data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation and hydric soils assumed to re-establish if drain tile removed and area left undisturbed.

## VEGETATION – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
(Plot size: <u>n/a</u> )				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
1. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b>				<b>Prevalence Index worksheet:</b>
(Plot size: <u>n/a</u> )				Total % Cover of: _____ Multiply by: _____
1. _____	_____	_____	_____	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
50% = _____, 20% = _____	<u>0</u>	= Total Cover		Column Totals: _____ (A) _____ (B)
<b>Herb Stratum</b>				Prevalence Index = B/A = _____
(Plot size: <u>5 ft</u> )				
1. <u>Trifolium pratense</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		
<b>Woody Vine Stratum</b>				
(Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>95</u>				
				<b>Hydrophytic Vegetation Indicators:</b>
				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
				<input type="checkbox"/> 2 - Dominance Test is >50%
				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>
				<input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____

Remarks: Based on position in the landscape and hydrology, it is likely that wetland plants would predominate in this area if left undisturbed long enough for hydric soils to develop.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 27, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-03B  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None Slope (%): 2-3%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cornelius and Kinton Silt Loams, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		

Remarks: Data plot located above the toe of slope in agriculture field alongside 175<sup>th</sup> Ave. Drain tile present in immediate area and data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. If drain tile removed and area left undisturbed, it is unlikely hydrophytic vegetation or hydric soils would predominate based on the higher position along the slope.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5 ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Trifolium pratense</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>95</u>	<u>0</u>	= Total Cover		

Remarks:

**SOIL**

Sampling Point: DP-03B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10 YR 3/2	100	--	--	--	--	Silt loam	fill layer, hardpan like
9-16	7.5 YR 4/4	100	--	--	--	--	Sandy silt	

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>except MLRA 1</b> )	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <u>  X  </u>
--	---

Remarks:

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (2 or more required)</b>
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b> Surface Water Present?    Yes _____ No <u>  x  </u> Depth (inches): _____ Water Table Present?    Yes _____ No <u>  x  </u> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes _____ No <u>  x  </u> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <u>  X  </u>
--	---

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

Remarks: No water, no saturation, no crop stress.





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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 27, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-12B  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): Depressional area Local relief (concave, convex, none): Slightly concave Slope (%): 1-2%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 3-7 % Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	

Remarks: Depressional area at toe of slope in agriculture field alongside 175<sup>th</sup> Ave, ponded nearby water, very soft soils. West edge of depressional area bordered by 5'-6' roadside embankment. Drain tile present in immediate area and data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. Hydrophytic vegetation and hydric soils assumed to re-establish if drain tile removed and area left undisturbed.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: <u>n/a</u> )</b>				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: <u>5 ft</u> )</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Trifolium pratense</u>	<u>5</u>	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: <u>n/a</u> )</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>95</u>				

Remarks: Based on position in the landscape and hydrology, it is likely that wetland plants would predominate in this area if left undisturbed long enough for hydric soils to develop.



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

Project/Site: Crescent Grove Property City/County: Tigard, Washington Co. Sampling Date: January 27, 2015  
 Applicant/Owner: West Hills Development State: OR Sampling Point: DP-14B  
 Investigator(s): Jeff Payson, Julie Fox Section, Township, Range: Section 6 T2S R01W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None Slope (%): 2-3%  
 Subregion (LRR): A Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Cascade Silt Loam, 7-12% Slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No   
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
--	--	---	---

Remarks: Data plot located above the toe of slope in agriculture field alongside 175<sup>th</sup> Ave. Drain tile present in immediate area and data plot taken within an actively planted, manipulated and managed agricultural field. The soil has been turned over annually and the soil profile is somewhat mixed up in areas. No natural vegetation is present. If drain tile removed and area left undisturbed, it is unlikely hydrophytic vegetation or hydric soils would predominate based on the higher position along the slope.

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>n/a</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>n/a</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5 ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Trifolium pratense</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>n/a</u> )				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>95</u>				

Remarks:

**SOIL**

Sampling Point: DP-14B

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10 YR 3/2	100	--	--	--	--	Silt loam	
9-16	7.5 YR 4/4	100	--	--	--	--	Silt loam, some clay	Fill layer, hardpan like

**DYCHES PROPERTY  
WETLAND AND WATERS DELINEATION REPORT  
BEAVERTON, OREGON  
T2S, R1W, SECTION 6, TAX LOT 103  
WASHINGTON COUNTY, W.M.**

Prepared for

**RON DYCHES**  
13784 SW Fern Street  
Tigard, OR 97223  
(503) 234-9691

November 26, 2014



**ENGINEERING & FORESTRY**

AKS Engineering & Forestry, LLC  
12965 SW Herman Road, Suite 100  
Tualatin, Oregon 97062  
(503) 563-6151

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## CONTENTS

INTRODUCTION.....	1
A. LANDSCAPE SETTING AND LAND USE.....	1
B. SITE ALTERATIONS .....	1
C. PRECIPITATION DATA AND ANALYSIS .....	2
D. METHODS .....	3
E. DESCRIPTION OF ALL WETLANDS AND OTHER NON-WETLAND WATERS .....	4
Wetlands .....	4
Non-wetland Waters .....	5
F. DEVIATION FROM LWI OR NWI.....	5
G. MAPPING METHOD .....	5
H. ADDITIONAL INFORMATION.....	5
I. RESULTS AND CONCLUSIONS.....	6
J. REQUIRED DISCLAIMER.....	6
K. LIST OF PREPARERS .....	6

## APPENDICES

- A. Maps
  - i. Figure 1. Vicinity map.
  - ii. Figure 2. Tax lot map.
  - iii. Figure 3. Soils map.
  - iv. Figure 4. National Wetlands Inventory map.
  - v. Figure 5. Wetland and Waters delineation map.
  - vi. Figure 6. Wetland and Waters delineation on recent aerial photograph.
- B. Precipitation Data
- C. Wetland Determination Data Forms
- D. Historic Aerial Photographs
- E. Photo Location Map and Ground-level Site Photographs
- F. Literature Cited

## TABLES

Table 1. Precipitation Data – Observed (inches) .....	2
Table 2. Precipitation Data – Monthly Averages based on the climate period 1971 – 2000 (inches) .....	2
Table 3. Summary of Potentially Jurisdictional Features Delineated in the Study Area .....	6

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## INTRODUCTION

This report was prepared in accordance with Oregon Administrative Rule (OAR) 141-090-0030 and OAR-141-090-0035 (1-17) and describes the results of a wetland and waters delineation conducted on tax lot 103 of tax map 2S 1 6 located northeast of the intersection of SW 175<sup>th</sup> Avenue and SW Scholls Ferry Road in the urban growth boundary (UGB) of Beaverton, Washington County, Oregon (Figures 1 and 2 in Appendix A). The study area for the wetland and waters delineation was approximately 54.11 acres and is shown in Figures 1 to 6 in Appendix A. Approximately 8.15 acres of palustrine shrub-scrub wetland and 0.04 acres of intermittent waters were delineated in the study area. Wetland conditions extend off-site to the west and to the east. Intermittent water conditions extend off-site to the north and to the south.

### A. LANDSCAPE SETTING AND LAND USE

The study area is undeveloped. The topography in the study area slopes southerly towards wetland delineated in the southern portion of the site. The majority of the site had been recently (within the past 5 years) logged prior to our November 2014 site visit. A few remaining Douglas fir (*Pseudotsuga menziesii*), Oregon white oak (*Quercus garryana*), and bigleaf maple (*Acer macrophyllum*) trees were present in the southern portion of the site and adjacent to the intermittent tributary located in the eastern portion of the site. The stumps had been removed from the logged area and the site had been recently seeded with an erosion control grass mix and straw mulch. The recently logged area was dominated by a non-native grass and forb community {bluegrass (*Poa* species), bentgrass (*Agrostis* species), common St. John's wort (*Hypericum perforatum*), Canada thistle (*Cirsium arvense*), Queen Anne's-lace (*Daucus carota*), dovefoot geranium (*Geranium molle*), perennial ryegrass (*Lolium perenne*), sticky-willy (*Galium aparine*), and other less dominant species}. A few areas throughout the recently logged area contained newly sprouting natural vegetation. These areas consisted of red elder (*Sambucus racemosa*), baldhip rose (*Rosa gymnocarpa*), common snowberry (*Symphoricarpos albus*), pineland sword fern (*Polystichum munitum*), thimbleberry (*Rubus parviflorus*), and salal (*Gaultheria shallon*).

The surrounding land use consists of residential to the east, with agricultural land use to the west and south of the site. Forested area is present to the north of the site.

### B. SITE ALTERATIONS

The site was most recently logged approximately 2 years ago. The site is located in forest deferral and has been logged at least 3 times within the past 35 years. The logging was conducted in accordance with the Oregon Forest Practice Act, which provides exemptions from removing trees within wetland areas. The recent logging activities removed the native vegetation community from the majority of the site. However, the historic logging activities do not appear to have significantly changed the extent of wetland conditions present on the site. No evidence of grading or soil manipulation (compaction from equipment) appears to have occurred on the site; only vegetation removal. The larger wetland area in the southern portion of the site had not been recently logged. A gravel access road is present extending from SW Scholls Ferry through wetland delineated in the southern portion of the site. According to



google earth aerial photograph imagery the access road was constructed sometime between 1994 and 2000.

### C. PRECIPITATION DATA ANALYSIS

The closest WETS (short for wetlands climate analysis) station to the project site is the Portland KGW station. Average annual rainfall according to the WETS table for the Portland KGB station is 43.16 inches. Precipitation data were obtained from the Portland, Oregon weather station via the National Weather Service (NWS). Precipitation data are shown in Tables 1 and 2, and raw data are included in Appendix B. Table 1 shows the rainfall received on the day of the site visit, two weeks prior to the site visit, and the water-year-to-date rainfall (NWS 2012). Table 2 shows the average monthly precipitation averages according to the WETS Portland KGB station for the three months prior to the November 5, 2014 site visit.

**Table 1. Precipitation Data – Observed (inches)**

Field Date	Observed Rainfall on Field Date	Observed Rainfall Two Weeks Prior to Field Date	Observed Rainfall for the Water Year-to-Date (WYTD)	Departure from Average WYTD
November 5, 2014	0.1	5.06	6.55	+2.76 above normal

Data Sources: Observed precipitation data were obtained from National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS) preliminary climatology data for the Portland, Oregon Station.

**Table 2. Precipitation Data – Monthly Averages based on the climate period 1971 – 2000 (inches)**

Prior Three Months	Average	30% Chance Will Have		Observed Precipitation	Within Normal Range?
		Less Than	More Than		
August	0.99	0.28	1.18	0.01	No –Below average
September	1.87	0.78	2.32	0.98	Yes – Below average
October	3.39	1.78	4.14	5.94	Above normal and average

According to the WETS table, monthly observed precipitation for Portland for the two months prior to the site was within the normal range. Compared to the WETS table the monthly rainfall received in October 2014 was approximately 1.80 inches above normal and approximately 2.55 inches above average. Approximately 5.06 inches of rainfall was received in Portland during the two weeks prior to the November 5, 2014 site visit. Even though we received above normal rainfall immediately prior to our site visit, portions of the wetland lacked a groundwater table within the surface 16-inches of the soil profile during the November 5, 2014 site visit. However, our wetland delineation study did not rely on the lack of a high groundwater table to determine the presence or absence of



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wetland conditions. Hydric soil indicators were heavily relied upon when delineating wetlands on the site. It is our opinion the rainfall preceding the site visit was not enough to fully recharge the groundwater table at this site. We recommend a follow up site visit during the early spring to confirm wetland hydrology at wetland plots that lacked primary hydrology indicators during our November 2014 site visit.

According to the WETS table for the Portland KGB station, the growing season is January 30 through December 24; therefore, the November 5, 2014 site visit was conducted during the WETS growing season.

## D. METHODS

The methodology used for determining the presence of wetlands and delineating wetland boundaries followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. The National Wetland Plant List 2013 (Lichvar 2013) was used to assign wetland indicator status for the appropriate region. Field work was conducted on November 5, 2014 by Stacey Reed and Stacy Benjamin, Senior wetland scientist of Wetlands Solutions NW, LLC. Soils, vegetation, and indicators of hydrology were recorded at 16 sample plot locations on standardized wetland determination data forms (Appendix C) to document site conditions.

The native vegetation community in the northern portion of the site had been recently cleared from logging activities. However, the removal of the vegetation did not interfere with the delineation methodology on the site. Newly sprouting natural vegetation was documented at most plots. Hydric soil indicators were used to delineate wetland areas with cleared vegetation.

According to google earth aerial imagery, there is a distinct consistent light green pattern that is evident on each of the google earth photos dating back to 1994 extending into the eastern portion of the site, within the logged portion of the study area. The signature appears to represent a non-forested area that shows evidence of saturation. This signature is located within mapped hydric soils and is located in a concave landform within the hillslope landscape. This signature was present in areas that contained field verified hydric soils and newly sprouting hydrophytic vegetation [(lamp rush and Oregon ash (*Fraxinus latifolia*)]. Therefore, secondary wetland hydrology indicator C9 *Saturation Visible on Aerial Photographs* was used at wetland plots located in the saturation signature. Historic google earth aerial photos are included in Appendix D for reference. A figure of the wetland delineation overlain onto a 2013 aerial photograph is attached for reference as Figure 6, Appendix A.

The following soil units are mapped within the study area according to the Natural Resources Conservation Service (NRCS) Washington County Area Soil Survey map (Figure 3 in Appendix A):

- Unit 7C- Cascade silt loam, 7 to 12 percent slopes; non-hydric with hydric inclusions of Delena in swales;
- Unit 11B- Cornelius and Kinton silt loams, 2 to 7 percent slopes; non-hydric with hydric inclusions of Delena in swales;



- 
- Unit 11C- Cornelius and Kinton silt loams, 7 to 12 percent slopes; non-hydric with hydric inclusions of Delena in swales;
  - Unit 11E- Cornelius and Kinton silt loams, 20 to 30 percent slopes; non-hydric with hydric inclusions of Delena in swales; and
  - Unit 16C- Delena silt loam, 3 to 12 percent slopes; hydric.

Representative ground level site photographs are included in Appendix E. References cited and literature used are listed in Appendix F.

## **E. DESCRIPTION OF ALL WETLANDS AND OTHER NON-WETLAND WATERS**

### **Wetlands**

One large palustrine scrub-shrub wetland with a seasonally saturated water regime (PSSC) was delineated in the western and southern portions of the study area (Figure 5, Appendix A). Wetland conditions extend off-site to the west and to the east of the study area. Approximately 8.15 acres (354,821 square feet) of wetland was delineated in the study area. Wetland conditions belongs to the Slope/ Flats hydrogeomorphic (HGM) subclass. Drainage patterns flowing in an easterly direction were observed within the PSS portion of the wetland located in the southern portion of the site. Seasonal drainage discharges off-site to the east. On-site wetland conditions were documented at Plots 1, 2, 3, 7, and 9.

The vegetation community during our November 5, 2014 site visit within the portions of the wetland that had been recently logged mainly consisted of a non-native grass community that was recently seeded for erosion control. However, newly sprouting lamp rush (*Juncus effuses*) and Oregon ash seedlings were present in the recently logged area. The southern portion of the site consisted of a scrub-shrub community that had not been recently logged. The on-site scrub-shrub community was generally dominated by Oregon ash, black hawthorn (*Crataegus douglasii*), Douglas' meadowsweet (*Spiraea douglasii*), lamp rush, common velvetgrass (*Holcus lanatus*), slough sedge (*Carex obnupta*), and reed canarygrass (*Phalaris arundinacea*).

The soils documented within wetlands were low chroma (chroma of 2 or less) displaying distinct redoximorphic features, meeting either hydric soil indicator F6 Redox Dark Surface or F3 Depleted Matrix. Soils documented at wetland plots closely resemble the mapped hydric Delena soil series.

All wetland plots (except Plots 14 and 15) lacked evidence of a groundwater table within the surface 12-inches during the November 5, 2014 site visit. Therefore, secondary wetland hydrology indicators were used at plots with hydric soil indicators. Secondary wetland hydrology indicators consisted of geomorphic position (concave landform) and saturation visible on aerial imagery.

The wetland boundary in the recently logged area was defined by a subtle change in the landform from concave low elevation swale in wetland to a convex hillslope landform in the adjacent upland. There was also a slight change in the vegetation community that coincided with the change in the landform from lamp rush and Oregon ash seedlings in wetland to Himalayan blackberry, California dewberry, red elder,



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and thimbleberry in the adjacent upland. The adjacent upland also lacked hydric soil indicators. The adjacent uplands were documented at Plots 4, 5, 6, 8, 10, 11, 13, and 16.

## **Non-wetland Waters**

Approximately 1,821 square feet (0.04 acres) of intermittent waters were delineated in the eastern portion of the site. The drainage enters the site from the north and flows in a southerly direction through a shallowly defined channel. The on-site channel bed averages approximately 1 foot wide with 6-inch tall defined banks. The dominant substrate in the on-site portions of the drainage was silt loam. Shallow (approximately 2-inch deep) continuous flow was present in the on-site portions of the channel during the November 5, 2014 site visit. The on-site riparian community was dominated by Douglas fir, bigleaf maple, and Oregon white oak trees with creambush (*Holcus discolor*), vine maple (*Acer circinatum*), Himalayan blackberry, pineland sword fern, and California dewberry generally dominant in the understory. The ordinary high water mark (OHWM) for the on-site portions of the drainage were flagged along the top of the well-defined stream banks.

## **F. DEVIATION FROM LWI OR NWI**

The site is not covered under the study area of a Local Wetland Inventory (LWI). No wetlands or waters are mapped on the site on the Beaverton, Oregon National Wetlands Inventory (NWI) map (Figure 4 in Appendix A). Our wetland delineation determined scrub-shrub wetlands and an intermittent waterway are present on the site.

## **G. MAPPING METHOD**

Sample Plots 1 through 16 and the on-site wetland and water boundaries were flagged in the field and professionally land surveyed by AKS Engineering & Forestry, LLC. The surveyed wetland and water delineation map is included as Figure 5 in Appendix A.

## **H. ADDITIONAL INFORMATION**

The wetlands and waters delineated in this study are likely to be determined to be jurisdictional by the Oregon Department of State Lands (DSL). According to Streamnet, no fish species data is listed on the intermittent drainage located in the northeastern portion of the site.

The wetlands delineated on the site extend off-site to the east. According to a wetland delineation conducted on the adjacent site to the east (DSL File WD-06-0732), off-site wetland conditions have a hydrologic connection to wetlands delineated on the southern side of SW Scholls Ferry Road through a culvert under SW Scholls Ferry. The on-site drainage is not mapped on the USGS map; however, according to the USGS map, a tributary to the Tualatin River is mapped to the south of the site. Based on review of aerial imagery and hydric soil mapping, the on-site drainage and wetlands may have a hydrologic connection to the nearby tributary to the Tualatin River through ditches and/or off-site wetlands. Therefore, wetlands and waters delineated in the study area may also be



determined jurisdictional by the U.S. Army Corps of Engineers (USACE) by having a significant nexus to nearby waters of the United States (the Tualatin River).

## I. RESULTS AND CONCLUSIONS

A palustrine scrub-shrub wetland and intermittent tributary were delineated within the study area. Wetlands and waters extend outside of the study area. The acreage of wetlands and waters within the study area is shown in Table 3, along with the Cowardin and HGM classifications, flow regime, wetland determination plot numbers, and our opinion of whether the features would likely be determined jurisdictional by DSL and the USACE. The latitude and longitude for the center of each potentially jurisdictional feature is also included on the table below.

**Table 3.** Summary of Potentially Jurisdictional Features Delineated in the Study Area

Potentially Jurisdictional Feature	Size (acres)	Cowardin Class or Flow Regime	HGM Subclass	Wetland Plot No.	Predicted Jurisdictional Determination	Latitude, Longitude of Centroid
Wetland	8.15	PSSC	Slopes/Flat	1,2,3,9,12, 14,15	DSL & USACE	45.4295 -122.851
Waters	0.04	Intermittent	N/A	N/A	DSL & USACE	45.4314 -122.846

## 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 my knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with Oregon Administrative Rule (OAR) 141-090-0005 through 141-090-0055.

## K. LIST OF PREPARERS



Stacey Reed, PWS  
Wetland Scientist  
Fieldwork and Report Preparation



## **APPENDIX A**

### **Maps**

Figure 1. Site location map

Figure 2. Tax lot map

Figure 3. Soils map

Figure 4. National Wetlands Inventory map

Figure 5. Wetland and Waters delineation map

Figure 6. Wetland and Waters delineation on recent aerial photo



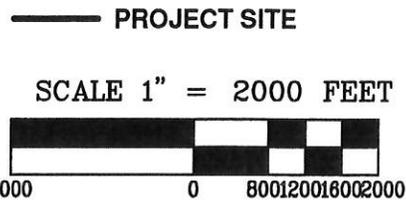
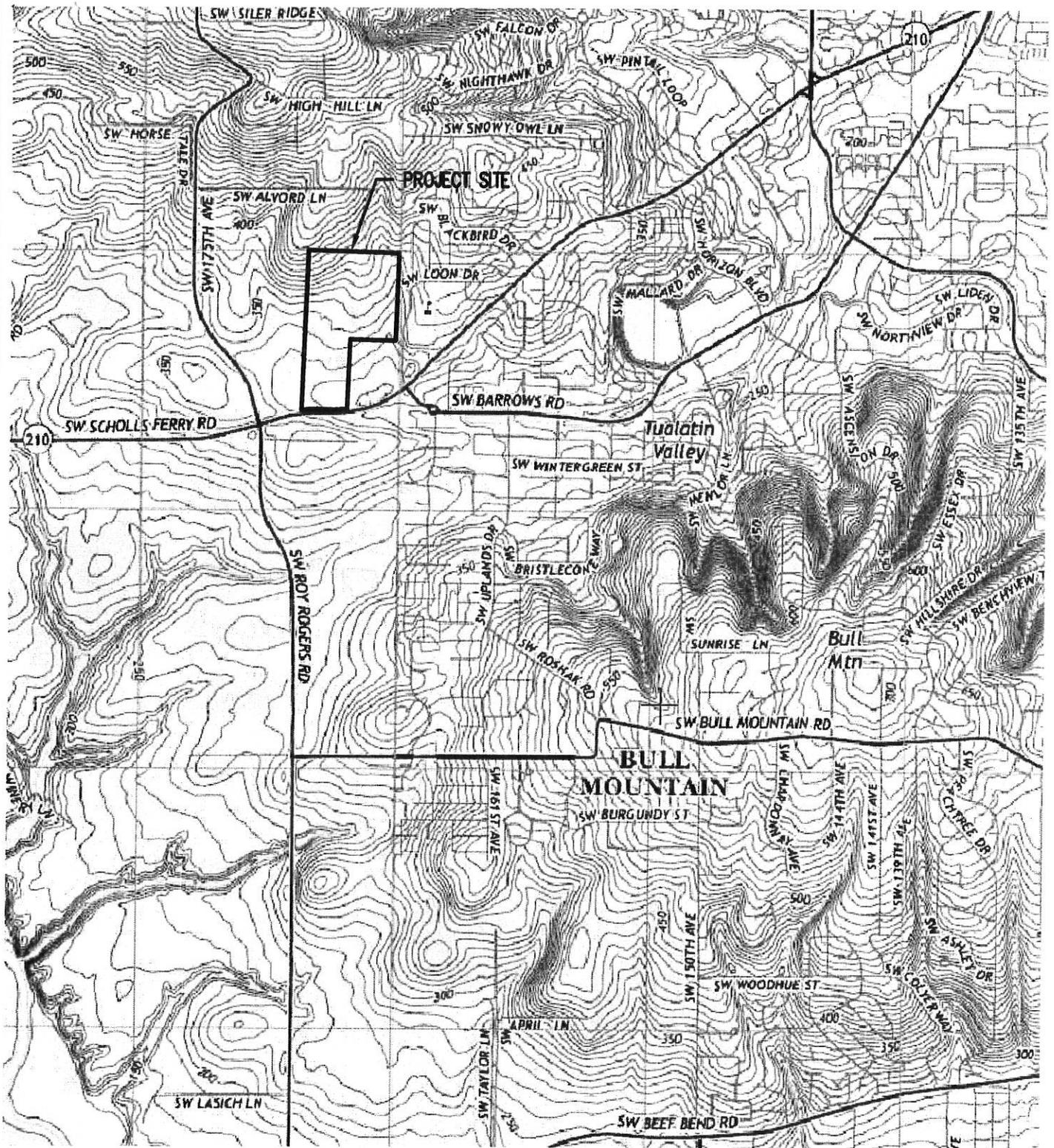
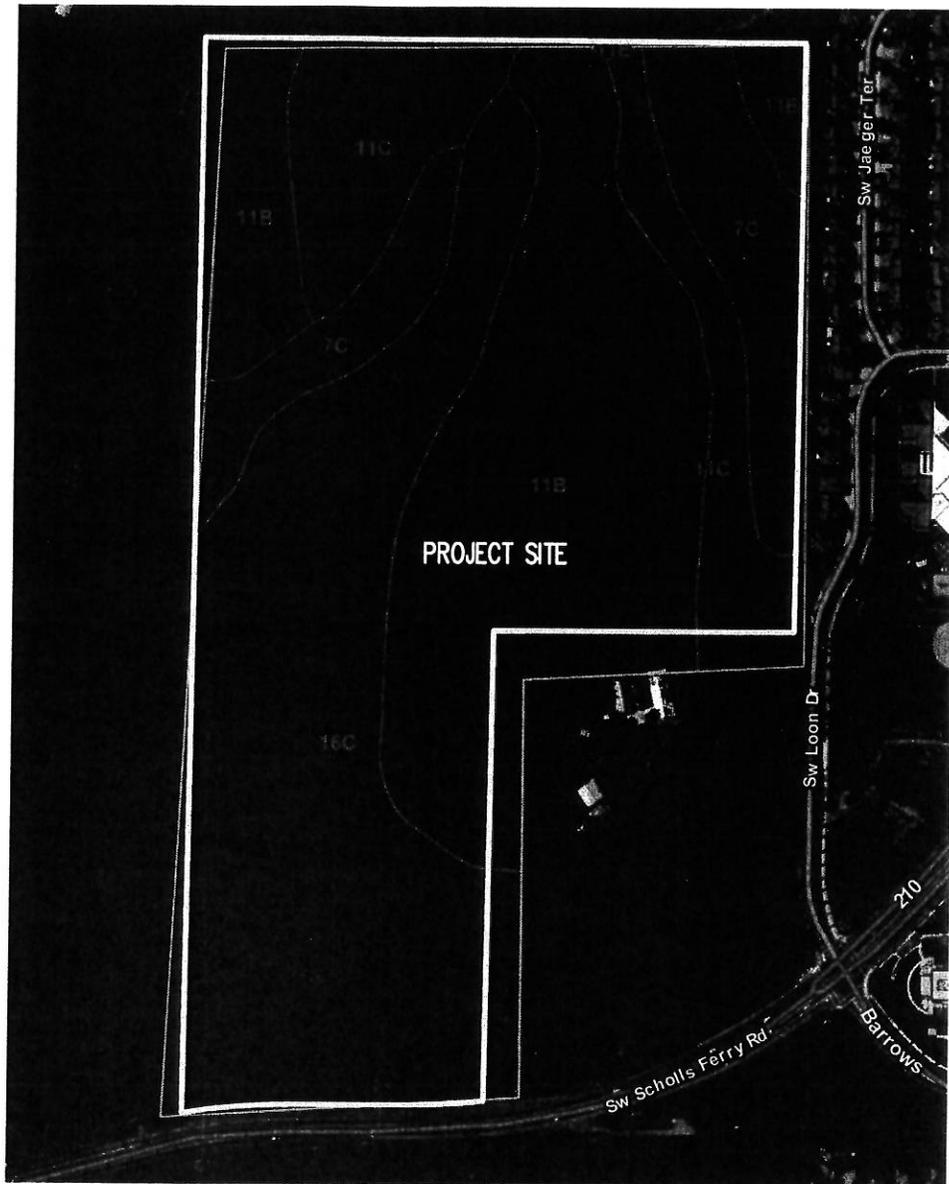


FIGURE 1: VICINITY MAP DATE: 11-25-2014

<b>DYCHES PROPERTY WETLAND AND WATERS DELINEATION</b>			
DRAWN BY: BLF	CHECKED BY: SR	DWG: 3303 SITE MAPS	JOB: 3303
AKS ENGINEERING & FORESTRY, LLC			
12965 SW HERMAN RD		SUITE 100	
TUALATIN, OR 97062		www.aks-eng.com	
PHONE: 503.563.6151		FAX: 503.563.6152	







MAP UNIT SYMBOL	MAP UNIT NAME
7C	CASCADE SILT LOAM, 7-12% SLOPES
11B	CORNELIUS AND KINTON SILT LOAM, 2-7% SLOPES
11C	CORNELIUS AND KINTON SILT LOAM, 7-12% SLOPES
11E	CORNELIUS AND KINTON SILT LOAM, 20-30% SLOPES
16C	DELENA SILT LOAM, 3-12% SLOPES - HYDRIC

NRCS WEB SOIL SURVEY FOR  
WASHINGTON COUNTY



— PROJECT SITE

SCALE 1" = 400 FEET

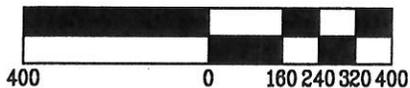
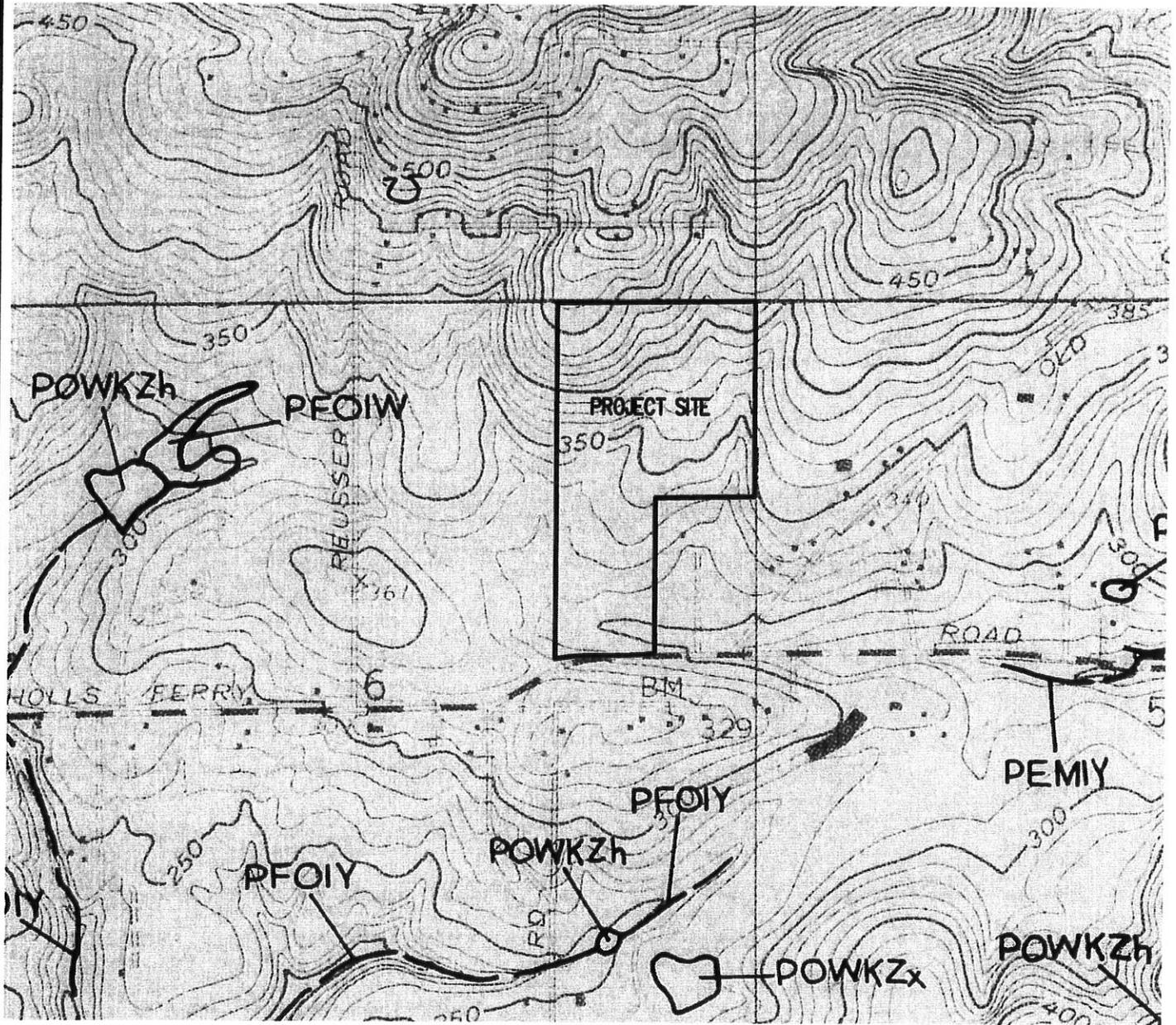


FIGURE 3: SOILS MAP

DATE: 11-25-2014

DYCHES PROPERTY WETLAND AND WATERS DELINEATION			
DRAWN BY: BLF	CHECKED BY: SR	DWG: 3303 SITE MAPS	JOB: 3303
AKS ENGINEERING & FORESTRY, LLC		SUITE 100	
12965 SW HERMAN RD		TUALATIN, OR 97062	
PHONE: 503.563.6151		FAX: 503.563.6152	
			<b>AKS</b>



NATIONAL WETLAND INVENTORY FOR  
BEAVERTON, OREGON



— PROJECT SITE

SCALE 1" = 1000 FEET

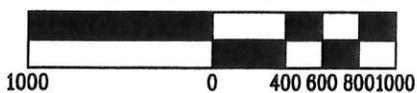


FIGURE 4: NATIONAL WETLAND  
INVENTORY MAP

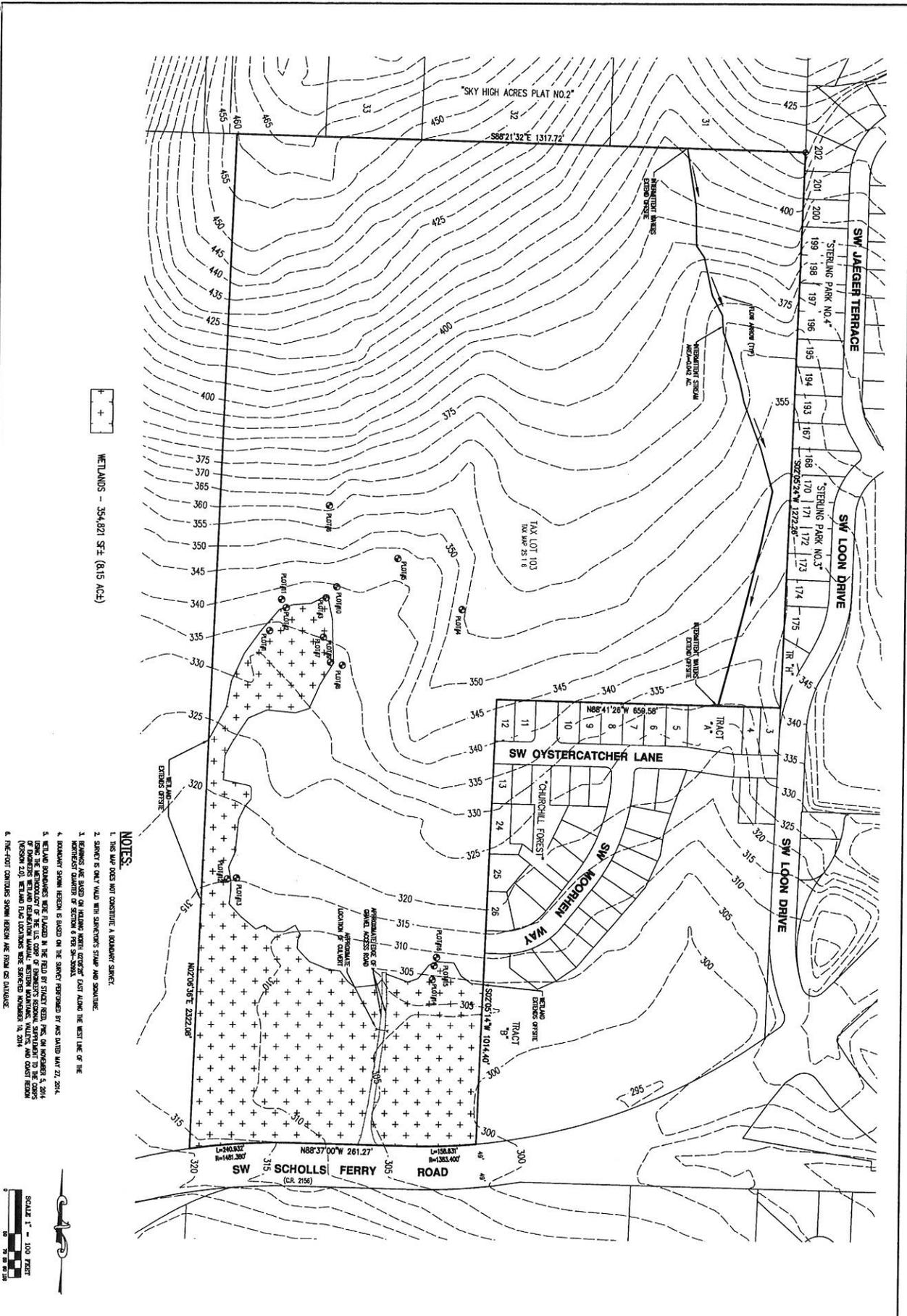
DATE: 11-25-2014

DYCHES PROPERTY WETLAND AND WATERS DELINEATION

DRAWN BY: BLF | CHECKED BY: SR | DWG: 3303 SITE MAPS | JOB: 3303

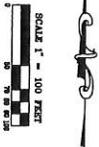
AKS ENGINEERING & FORESTRY, LLC  
12965 SW HERMAN RD SUITE 100  
TUALATIN, OR 97062 www.aks-eng.com  
PHONE: 503.563.6151 FAX: 503.563.6152





WETLANDS - 354,821 SF± (8.15 AC±)

- NOTES:**
1. THIS MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY.
  2. SURVEY IS ONLY MADE WITH SATELLITE STAMP AND SPOTCHECK.
  3. BOUNDARY LINE BASED ON AERIAL PHOTO INTERPRETATION (AST) ALONG THE BEST LINE OF THE PERMITTED CORNER OF SECTION 19A, SH-5000.
  4. BOUNDARY SHOWN HEREON IS BASED ON THE SURVEY PERFORMED BY AKS DATED MAY 22, 2014.
  5. WETLAND BOUNDARIES WERE FLAGGED IN THE FIELD BY STACY BEHN, PWS, ON NOVEMBER 5, 2014. THE BOUNDARIES OF THE U.S. COAST & GEODYSIC SURVEY, SUPERSEDED TO THE CORNER (VERSION 2.0). WETLAND FLAG LOCATIONS WERE SURVEYED NUMBERED IN 2014.
  6. THE FOOT CONDITIONS SHOWN HEREON ARE FROM AN OUTLAGE.



**FIGURE 5**

DATE:	11/25/2014
DESIGNER:	AKS
CHECKER:	AKS
DATE:	11/25/2014
SCALE:	1" = 100'
SHEET:	3303
FIGURE:	5

**PRELIMINARY**

**WETLAND AND WATERS DELINEATION MAP**

TAX LOT 103

**DYCHES PROPERTY**

OREGON

WASHINGTON COUNTY ASSESSOR'S MAP 25 18

AKS ENGINEERING AND FORESTRY, LLC  
 15060 SW HERMAN RD  
 SUITE 100  
 TUALATIN, OR 97062  
 PHONE: 503.643.6151  
 FAX: 503.643.6152  
 www.aks-eng.com

**AKS**

ENGINEERING · PLANNING · SURVEYING  
 FORESTRY · LANDSCAPE ARCHITECTURE





## **APPENDIX B**

### **Precipitation Data**



### USDA Field Office Climate Data

WETS Station : PORTLAND KGW TV, OR6749                      Creation Date: 11/05/2014  
 Latitude: 4531                      Longitude: 12241                      Elevation: 00159  
 State FIPS/County(FIPS): 41051                      County Name: Multnomah  
 Start yr. - 1971                      End yr. - 2000

Month	Temperature (Degrees F.)			Precipitation (Inches)				
	avg daily max	avg daily min	avg	avg	30% chance will have		avg	avg
					less than	more than	# of days w/.1 or more	total snow fall
January	45.5	36.7	41.1	6.24	3.82	7.55	12	1.2
February	50.1	38.5	44.3	5.07	3.33	6.08	12	0.9
March	55.5	40.7	48.1	4.51	3.41	5.26	12	0.1
April	60.8	43.5	52.2	3.10	2.14	3.69	9	0.0
May	67.0	48.5	57.8	2.49	1.53	3.01	8	0.0
June	72.6	53.2	62.9	1.60	0.85	1.95	4	0.0
July	78.9	57.3	68.1	0.76	0.30	0.93	2	0.0
August	79.1	57.9	68.5	0.99	0.28	1.18	2	0.0
September	74.2	54.6	64.4	1.87	0.78	2.32	5	0.0
October	63.0	48.1	55.6	3.39	1.78	4.14	8	0.0
November	51.4	41.8	46.6	6.39	4.21	7.66	14	0.4
December	45.5	37.3	41.4	6.75	4.57	8.07	13	0.9
Annual	-----	-----	-----	-----	37.65	47.61	--	----
Average	62.0	46.5	54.3	-----	-----	-----	--	----
Average	-----	-----	-----	43.16	-----	-----	96	2.8

GROWING SEASON DATES

Probability	Temperature		
	24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *		1/30 to 12/24 327 days	2/20 to 11/29 281 days
70 percent *		1/19 to 1/ 4 349 days	2/12 to 12/ 7 298 days

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

total 1973-2014 prcp

Station : OR6749, PORTLAND KGW TV

----- Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
73								1.66	3.76	3.81	13.46	9.88	32.57
74	9.07	4.85	6.43	2.64	2.17	0.86	2.27	0.14	0.15	2.22	7.13	6.93	44.86
75	8.83	6.03	5.02	2.48	1.97	1.22	0.41	2.84	0.00	5.67	4.71	6.74	45.92
76	6.07	5.41	3.41	2.63	1.74	0.92	0.75	2.50	0.93	1.73	1.13	1.36	28.58
77	1.26	2.71	4.10	0.63	4.39	0.99	1.05	3.57	4.69	3.51	5.87		32.77
78	5.93	3.81	1.73	3.53	3.70	1.41	1.17	2.36	M3.58	0.48	4.08	2.85	34.63
79	M3.04	7.00	2.58	2.83	2.18	0.39	0.25				M4.58	M7.35	30.20
80	8.88	4.51	4.45	3.11	2.16	2.77	0.18	0.21	2.06	1.25	7.09	10.27	46.94
81	1.67	3.84	2.74	3.11	1.81	4.03	0.21	0.04	2.76	4.57	5.99	10.34	41.11
82	8.76	7.10	3.61	4.89	0.59	0.99	0.83	1.92	3.33	4.96	3.84	9.40	50.22
83	7.71	9.05	7.31	2.44	2.38	2.04	2.94	2.01	0.47	1.92	10.73	5.78	54.78
84	2.38	4.02	4.32	4.38	4.09	4.48	0.00	0.08	1.99	4.60	10.69	3.38	44.41
85	0.27		4.06	1.14	0.88	2.28	0.12	0.99	2.71	3.05		2.20	17.70
86	5.87	7.15	2.78	1.32	2.33	0.32	1.86	0.04	2.96	2.09	6.36	4.23	37.31
87	7.33	2.99	6.50	2.45	1.88	0.20	1.56	0.46	0.36	0.28	1.97	9.19	35.17
88	6.31	1.38	4.08	5.08	2.97	2.20	0.26	0.11	1.66	0.33	8.34	3.04	35.76
89	4.43	2.64	8.74	1.63	3.53	0.97	1.01	1.11	1.13	1.68	4.46	3.82	35.15
90	8.51	5.44	2.68	3.01		1.89	1.10	1.04	0.52	5.87	4.88	3.74	38.68
91	3.66	4.92	4.52	4.02	4.13	2.43	0.12	0.93	0.10	2.17	7.44	4.88	39.32
92	5.04	4.58	1.78	5.06	0.13	0.56	0.45	0.25	1.33	3.17	5.45	6.84	34.64
93	3.60	0.96	5.20	6.31	4.02	1.94	1.42	0.18	0.00	1.44	1.79	6.86	33.72
94	4.95	6.11	2.72	2.31	1.23	1.10	0.07	0.14	1.63	9.02	7.49	6.53	43.30
95	7.44	M5.22	5.02	4.19	1.13	2.29	0.98	1.69	2.14	M4.35	11.71	7.84	54.00
96	8.56	12.43	4.46	5.95	4.84	0.09	M0.49	0.50	3.22	M6.17	9.72	16.28	72.71
97	8.86	2.14	8.24	3.78	2.46	1.62	0.64	1.55	2.84	7.58	5.19	M4.01	48.91
98	M7.76	6.80	M4.21	1.49	5.18	1.61	0.34	0.00	1.02	3.57	13.36	M9.21	54.55
99	8.97	11.39	5.67	M1.61	M2.59	M2.45	0.38	M1.12	0.19	2.89	7.67	7.67	52.60
0	8.08	4.96	3.62	2.39	2.51	M0.90	M0.25	0.15	1.76	3.19	M2.91	M3.85	34.57
1	M1.99	1.79	3.73	3.09	1.12	1.40	0.46	0.87	0.66	4.37	M7.44	M7.83	34.75
2	8.03	4.92	5.40	3.60	M1.57	2.19	M0.19	0.01	1.31	0.32	2.49	10.48	40.51
3	9.14	3.17	M5.16	7.03	M1.60	M0.11	0.00	0.06	M1.50	2.30	5.38	10.43	45.88
4	M5.02	4.86	2.01	2.16	1.17	1.03	0.00	3.20	1.76	M3.27	2.46	4.58	31.52
5	M2.03	M1.13	4.73	4.44	5.06	M2.56	M0.41	0.22	1.37	4.26	6.54	M10.20	42.95
6	12.05	2.38	3.63	2.52	M0.48	1.12	0.19	0.07	1.12	1.83	M15.56	M3.80	44.75
7	M1.88	M3.19	M1.58	M0.42	M1.06	M0.87	M0.54	M0.51	M0.41	M1.15	M3.80	M7.52	22.93
8	M5.81	M2.41	M3.65	M2.07	M1.22	M1.00	M0.00	M1.17	M0.30	M0.58	M4.14	M2.45	24.80
9	M5.03	M1.42	M1.91	M1.19	M3.03	M1.05	M0.22	M0.77	M1.63	3.54	7.21	4.99	31.99
10	6.68	3.96	5.62	3.99	4.63	4.79	0.30	M0.00	M2.94	5.16	7.39	10.23	55.69
11	5.13	5.79	7.59	5.37	3.25	0.87	1.36	0.10	0.70	2.64	8.32	3.37	44.49
12	M8.74	3.71	9.95	3.85	3.21	2.78	0.51	0.00	0.01	6.59	8.53	9.14	57.02
13	3.11	1.51	2.37	2.59	5.26	M1.43	0.00	0.63	6.85	0.93	3.52	1.77	29.97
14	3.34	M5.95	7.58	4.51	2.79	1.84	0.92	0.13	1.05	M6.40	M0.53		35.04

Product generated by ACIS - NOAA Regional Climate Centers.

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### Climatological Report (Daily)

000  
CDUS46 KPQR 061248  
CLIPDX

CLIMATE REPORT  
NATIONAL WEATHER SERVICE PORTLAND OREGON  
448 AM PST THU NOV 6 2014

.....

...THE PORTLAND OR CLIMATE SUMMARY FOR NOVEMBER 5 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1940 TO 2014

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
--------------	----------------	------------	--------------	------	--------------	-----------------------	-----------

.....  
TEMPERATURE (F)

YESTERDAY

MAXIMUM	62	332 PM	68	1987	56	6	54
MINIMUM	54	744 AM	28	1971	43	11	46
AVERAGE	58			1959	49	9	50

PRECIPITATION (IN)

YESTERDAY	0.01		1.12	2006	0.17	-0.16	0.10
MONTH TO DATE	0.61				0.79	-0.18	1.12
SINCE OCT 1	6.55				3.79	2.76	2.27
SINCE JAN 1	31.68				25.70	5.98	23.17

DEGREE DAYS

HEATING

YESTERDAY	7				16	-9	15
MONTH TO DATE	55				76	-21	79
SINCE SEP 1	235				467	-232	513
SINCE JUL 1	236				494	-258	518

## COOLING

YESTERDAY	0	0	0
MONTH TO DATE	0	0	0
SINCE SEP 1	118	61	57
SINCE JAN 1	653	424	229

## WIND (MPH)

HIGHEST WIND SPEED	10	HIGHEST WIND DIRECTION	E (110)
HIGHEST GUST SPEED	13	HIGHEST GUST DIRECTION	E (90)
AVERAGE WIND SPEED	3.8		

## SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 1.0

## WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
LIGHT RAIN  
FOG

## RELATIVE HUMIDITY (PERCENT)

HIGHEST	100	1200 AM
LOWEST	78	1200 PM
AVERAGE	89	

## THE PORTLAND OR CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	56	68	2006
MINIMUM TEMPERATURE (F)	42	27	1971
			1957

## SUNRISE AND SUNSET

NOVEMBER 6 2014.....	SUNRISE	657 AM PST	SUNSET	450 PM PST
NOVEMBER 7 2014.....	SUNRISE	659 AM PST	SUNSET	449 PM PST

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

---

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

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### Climatological Report (Monthly)

000  
CXUS56 KPQR 011715  
CLMPDX

CLIMATE REPORT  
NATIONAL WEATHER SERVICE PORTLAND OREGON  
1015 AM PDT SAT NOV 1 2014

.....

...THE PORTLAND OR CLIMATE SUMMARY FOR THE MONTH OF OCTOBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1940 TO 2014

WEATHER	OBSERVED VALUE	DATE (S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR`S VALUE	DATE (S)
---------	-------------------	----------	-----------------	--------------------------	----------------------	----------

.....

TEMPERATURE (F)						
HIGHEST	85				74	10/06
LOWEST	47				32	10/29
AVG. MAXIMUM	68.0		63.8	4.2	63.4	
AVG. MINIMUM	52.1		46.0	6.1	43.6	
MEAN	60.1		54.9	5.2	53.5	
DAYS MAX >= 90	0		0.1	-0.1	0	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.2	-0.2	1	
DAYS MIN <= 0	0		0.0	0.0	0	

#### PRECIPITATION (INCHES)

##### RECORD

MAXIMUM	8.41	1994
MINIMUM	0.19	1988

TOTALS	5.94		3.00	2.94	1.15
DAYS >= .01	17		12.5	4.5	9
DAYS >= .10	14		7.4	6.6	4
DAYS >= .50	3		1.7	1.3	0
DAYS >= 1.00	1		0.3	0.7	0
GREATEST					

24 HR. TOTAL 2.13 10/22 TO 10/23

## DEGREE\_DAYS

HEATING TOTAL	163	315	-152	349
SINCE 7/1	181	418	-237	439
COOLING TOTAL	17	2	15	0
SINCE 1/1	653	424	229	539

## WIND (MPH)

AVERAGE WIND SPEED	6.6		
RESULTANT WIND SPEED/DIRECTION	3/141		
HIGHEST WIND SPEED/DIRECTION	37/200	DATE	10/25
HIGHEST GUST SPEED/DIRECTION	49/190	DATE	10/25

## SKY COVER

POSSIBLE SUNSHINE (PERCENT)	MM
AVERAGE SKY COVER	0.70
NUMBER OF DAYS FAIR	6
NUMBER OF DAYS PC	9
NUMBER OF DAYS CLOUDY	16

AVERAGE RH (PERCENT) 79

## WEATHER CONDITIONS. NUMBER OF DAYS WITH

THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	2	RAIN	10
LIGHT RAIN	20	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	24	FOG W/VIS <= 1/4 MILE	2
HAZE	2		

- INDICATES NEGATIVE NUMBERS.

R INDICATES RECORD WAS SET OR TIED.

MM INDICATES DATA IS MISSING.

T INDICATES TRACE AMOUNT.

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**Climatological Report (Monthly)**

000  
 CXUS56 KPQR 011534  
 CLMPDX

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 834 AM PDT WED OCT 1 2014

.....

...THE PORTLAND OR CLIMATE SUMMARY FOR THE MONTH OF SEPTEMBER 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1940 TO 2014

WEATHER	OBSERVED VALUE	DATE (S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR`S VALUE	DATE (S)
.....						
TEMPERATURE (F)						
HIGHEST	94				95	09/11
LOWEST	51				47	09/25 09/19
AVG. MAXIMUM	78.7		75.8	2.9	72.8	
AVG. MINIMUM	56.5		53.1	3.4	56.7	
MEAN	67.6		64.5	3.1	64.7	
DAYS MAX >= 90	4		1.6	2.4	2	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.0	0.0	0	
DAYS MIN <= 0	0		0.0	0.0	0	
PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	5.62	2013				
MINIMUM	T	1993				
		1975				
TOTALS	0.98		1.47	-0.49	5.62	
DAYS >= .01	5		6.7	-1.7	14	
DAYS >= .10	4		3.3	0.7	11	
DAYS >= .50	0		0.8	-0.8	4	

DAYS >= 1.00	0	0.2	-0.2	2
GREATEST				
24 HR. TOTAL	0.70	09/23 TO 09/24		
DEGREE_DAYS				
HEATING TOTAL	17	76	-59	85
SINCE 7/1	18	103	-85	90
COOLING TOTAL	101	59	42	86
SINCE 1/1	636	422	214	539

.....

WIND (MPH)

AVERAGE WIND SPEED	6.3		
RESULTANT WIND SPEED/DIRECTION	1/357		
HIGHEST WIND SPEED/DIRECTION	35/080	DATE	09/11
HIGHEST GUST SPEED/DIRECTION	44/080	DATE	09/11

## SKY COVER

POSSIBLE SUNSHINE (PERCENT)	MM
AVERAGE SKY COVER	0.50
NUMBER OF DAYS FAIR	0
NUMBER OF DAYS PC	0
NUMBER OF DAYS CLOUDY	0

AVERAGE RH (PERCENT)	63
----------------------	----

## WEATHER CONDITIONS. NUMBER OF DAYS WITH

THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	1	RAIN	2
LIGHT RAIN	9	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	6	FOG W/VIS <= 1/4 MILE	0
HAZE	1		

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

---

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**Climatological Report (Monthly)**

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 CXUS56 KPQR 011458  
 CLMPDX

CLIMATE REPORT  
 NATIONAL WEATHER SERVICE PORTLAND OREGON  
 758 AM PDT MON SEP 1 2014

.....

...THE PORTLAND OR CLIMATE SUMMARY FOR THE MONTH OF AUGUST 2014...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1940 TO 2014

WEATHER	OBSERVED VALUE	DATE (S)	NORMAL VALUE	DEPART FROM NORMAL	LAST YEAR`S VALUE	DATE (S)
.....						
TEMPERATURE (F)						
HIGHEST	99				91	08/06
LOWEST	54				57	08/20
AVG. MAXIMUM	84.8		81.1	3.7	81.5	
AVG. MINIMUM	61.4		58.0	3.4	60.9	
MEAN	73.1		69.5	3.6	71.2	
DAYS MAX >= 90	9		4.2	4.8	2	
DAYS MAX <= 32	0		0.0	0.0	0	
DAYS MIN <= 32	0		0.0	0.0	0	
DAYS MIN <= 0	0		0.0	0.0	0	
PRECIPITATION (INCHES)						
RECORD						
MAXIMUM	4.53	1968				
MINIMUM	T	2012				
		1998				
		1970				
TOTALS	0.01		0.67	-0.66	0.78	
DAYS >= .01	1		3.9	-2.9	6	
DAYS >= .10	0		1.8	-1.8	2	
DAYS >= .50	0		0.3	-0.3	0	

DAYS >= 1.00	0	0.1	-0.1	0
GREATEST				
24 HR. TOTAL	0.01	08/12 TO 08/12		
		08/11 TO 08/12		
		08/12 TO 08/12		

DEGREE_DAYS				
HEATING TOTAL	0	10	-10	3
SINCE 7/1	1	27	-26	5
COOLING TOTAL	258	152	106	203
SINCE 1/1	535	363	172	453

.....

WIND (MPH)

AVERAGE WIND SPEED	6.5		
RESULTANT WIND SPEED/DIRECTION	5/317		
HIGHEST WIND SPEED/DIRECTION	21/310	DATE	08/19
HIGHEST GUST SPEED/DIRECTION	26/310	DATE	08/19

SKY COVER

POSSIBLE SUNSHINE (PERCENT)	MM
AVERAGE SKY COVER	0.40
NUMBER OF DAYS FAIR	0
NUMBER OF DAYS PC	0
NUMBER OF DAYS CLOUDY	0

AVERAGE RH (PERCENT) 61

WEATHER CONDITIONS. NUMBER OF DAYS WITH

THUNDERSTORM	0	MIXED PRECIP	0
HEAVY RAIN	0	RAIN	0
LIGHT RAIN	4	FREEZING RAIN	0
LT FREEZING RAIN	0	HAIL	0
HEAVY SNOW	0	SNOW	0
LIGHT SNOW	0	SLEET	0
FOG	0	FOG W/VIS <= 1/4 MILE	0
HAZE	1		

- INDICATES NEGATIVE NUMBERS.

R INDICATES RECORD WAS SET OR TIED.

MM INDICATES DATA IS MISSING.

T INDICATES TRACE AMOUNT.





## **APPENDIX C**

### **Wetland Determination Data Forms**



**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 1  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Lower hillslope Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:

Plot located in recently logged area. All native vegetation had been removed.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10' r</u> )				
1. <u>Fraxinus latifolia</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Rubus armeniacus</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
3. <u>Rosa gymnocarpa</u>	<u>2%</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
9% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				
1. <u>Holcus lanatus</u>	<u>65%</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. <u>Cirsium arvense</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Vicia species</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Juncus effusus</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>	
5. <u>Geranium molle</u>	<u>1%</u>	<u>No</u>	<u>NOL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
69% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>10' r</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum <u>31%</u>				

Remarks:

Shrub layer newly sprouting.

**SOIL**

Sampling Point: 1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	90	7.5YR 3/4	10	C	M	sil	

<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>:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                         | <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                     | <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                 | <input type="checkbox"/> Other (Explain in Remarks)       |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                     |   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input checked="" type="checkbox"/> Redox Dark Surface (F6)       | <sup>3</sup> Indicators of hydrophytic vegetation and     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)               | wetland hydrology must be present,                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                   | unless disturbed or problematic.                          |

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)    |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)   | <input type="checkbox"/> Drainage Patterns (B10)                              |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                              | <input type="checkbox"/> Dry-Season Water Table (C2)                          |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                               | <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)            | <input checked="" type="checkbox"/> Geomorphic Position (D2)                  |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                            | <input type="checkbox"/> Shallow Aquitard (D3)                                |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)               | <input type="checkbox"/> FAC-Neutral Test (D5)                                |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)                  | <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)                       |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)                               | <input type="checkbox"/> Frost-Heave Hummocks (D7)                            |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |   |   |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |   |   |

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): >16  
 (includes capillary fringe)

**Wetland Hydrology Present?**  
Yes  No

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

Remarks:

Soils were moist throughout. No groundwater table after leaving pit open for >15 minutes. Plot located in subtle swale with consistent saturation signatures on aerial photography. Hydrology re-check during the early spring recommended to confirm the presence of wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 2  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Lower hillslope Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:

Plot located in area that was recently logged. All native vegetation had been removed. Plot located near wetland boundary.

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10' r</u> )				
1. <u>Sambucus racemosa</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
2% = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				
1. <u>Holcus lanatus</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Vicia species</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Geranium molle</u>	<u>5%</u>	<u>No</u>	<u>NOL</u>	
4. <u>Rumex acetosa</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
90% = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>10' r</u> )				
1. <u>Rubus ursinus</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
5% = Total Cover				
% Bare Ground in Herb Stratum <u>10%</u>				

Remarks:

*Vicia* species assumed to be FAC.

**SOIL**

Sampling Point: 2

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10YR 3/2	98	7.5YR 3/3	2	C	M	sil	
6-16+	10YR 4/2	85	7.5YR 4/4	15	C	M	sicl	

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input checked="" type="checkbox"/> Geomorphic Position (D2)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)
	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
	<input type="checkbox"/> Frost-Heave Hummocks (D7)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): >16 Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): >16 (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
---	---

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

Remarks: Soils were moist throughout. No groundwater after leaving pit open for >15 minutes. Plot located in subtle concave swale in area with consistent saturation signatures on aerial photographs. Hydrology re-check during the early spring recommended to confirm the wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 3  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation , Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			

Remarks:  
 Plot located in northern most extent of wetland in recently logged area. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>77</u> x 3 = <u>231</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>78</u> (A) <u>235</u> (B) Prevalence Index = B/A = <u>3.01</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Holcus lanatus</u>	<u>75%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Schedonorus arundinaceus</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
3.	<u>Hypericum perforatum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
4.	<u>Cirsium arvense</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		78% = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum <u>22%</u>					

Remarks:

**SOIL**

Sampling Point: 3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/2	98	7.5YR 3/4	2	C	M	sil	
7-16+	10YR 4/2	90	7.5YR 4/4	10	C	M	sicl	

<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.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >16

Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): >16 (includes capillary fringe).

**Wetland Hydrology Present?** Yes  No \_\_\_\_\_

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

Remarks:  
Soils were moist throughout. No groundwater after leaving pit open for >15 minutes. Plot located in subtle concave swale in area with consistent saturation signatures on aerial photographs. Hydrology re-check during the early spring recommended to confirm the wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 4  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:  
 Plot located in an area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>44%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>26</u> x 4 = <u>104</u> UPL species <u>5</u> x 5 = <u>25</u> Column Totals: <u>61</u> (A) <u>219</u> (B) Prevalence Index = B/A = <u>3.59</u>
1. <u>Gaultheria shallon</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
1% = Total Cover				
Herb Stratum (Plot size: <u>5' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Agrostis species</u>	<u>10%</u>	<u>Yes</u>	<u>FAC ?</u>	
2. <u>Leucanthemum vulgare</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Holcus lanatus</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Hypericum perforatum</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
5. <u>Cirsium arvense</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
6. <u>Daucus carota</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
7. <u>Geranium molle</u>	<u>5%</u>	<u>Yes</u>	<u>NOL</u>	
8. <u>Lotus corniculatus</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
55% = Total Cover				
Woody Vine Stratum (Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus ursinus</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
5% = Total Cover				
% Bare Ground in Herb Stratum <u>45%</u>				

Remarks:

**SOIL**

Sampling Point: 4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-11	10YR 4/3	100					sil	
11-16+	7.5YR 4/3	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): >16  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

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

Remarks:  
Soils were dry throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 5  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:

Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>90</u> (A) <u>270</u> (B) Prevalence Index = B/A = <u>3.00</u>
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5' r</u> )				
1.	<u>Lolium perenne</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		90% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum <u>10%</u>					

Remarks:

*Lolium perenne* seeded for erosion control.

**SOIL**

Sampling Point: 5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No **X**

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No **X**      Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No **X**      Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No **X**      Depth (inches): >16  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No **X**

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

Remarks:  
 Soils were dry throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 6  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:  
 Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>10' r</u>)</b>				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1. <u>Corylus cornuta</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Gaultheria shallon</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rubus armeniacus</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
4. <u>Prunus species</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
5. <u>Rubus parviflorus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
<u>21%</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5' r</u>)</b>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
1. <u>Agrostis species</u>	<u>20%</u>	<u>Yes</u>	<u>FAC ?</u>	
2. <u>Leucanthemum vulgare</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Cirsium arvense</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
4. <u>Galium aparine</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
5. <u>Hypericum perforatum</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>45%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>10' r</u>)</b>				
1. <u>Rubus ursinus</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
<u>5%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>55%</u>				

Remarks:  
 Shrubs layer newly sprouting natural vegetation.

**SOIL**

Sampling Point: 6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No **X**

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No **X** Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 (includes capillary fringe)

**Wetland Hydrology Present?**  
Yes \_\_\_\_\_ No **X**

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

Remarks:

Soils were dry throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 7  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:  
 Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
		0% = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>105</u> (A) <u>310</u> (B) Prevalence Index = B/A = <u>2.95</u>
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )				
1.	<u>Fraxinus latifolia</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
		5% = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )				
1.	<u>Lolium perenne</u>	<u>100%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		100% = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks:  
 Lolium perenne had been seeded for erosion control. Shrub layer newly sprouting natural vegetation.

**SOIL**

Sampling Point: 7

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-12	10YR 3/2	90	7.5YR 3/4	10	C	M	sil	
12-16	10YR 4/1	90	7.5YR 4/6	10	C	M	sicl	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >16  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): 0-12  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No \_\_\_\_\_

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

Remarks:

Soils were moist throughout. No groundwater table after leaving pit open for >15 minutes. Surface hydrology only from recent rainfall? Plot located in concave swale in area with consistent saturation signatures on aerial photographs. Hydrology re-check recommended in early spring to confirm wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 8  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:

Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

<u>Tree Stratum</u>	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
<u>Sapling/Shrub Stratum</u>	(Plot size: <u>10' r</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____  OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>22</u> (A) <u>66</u> (B) Prevalence Index = B/A = <u>3.00</u>
1.	<u>Fraxinus latifolia</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		1% = Total Cover			
<u>Herb Stratum</u>	(Plot size: <u>5' r</u> )				
1.	<u>Lolium perenne</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Vicia species</u>	<u>5%</u>	<u>No</u>	<u>FAC to UPL</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		25% = Total Cover			
<u>Woody Vine Stratum</u>	(Plot size: <u>10' r</u> )				
1.	<u>Rubus ursinus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
2.	_____	_____	_____	_____	
		1% = Total Cover			
% Bare Ground in Herb Stratum <u>75%</u>					

Remarks:

*Lolium perenne* seeded for erosion control.

**SOIL**

Sampling Point: 8

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 3/2	100					sil	
14-16+	10YR 3/2	95	7.5YR 3/4	5	C	M	sil	

<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> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): >16

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): >16  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

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

Remarks: Soils were slightly moist throughout.

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

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 9  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None

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 Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	

Remarks:

Plot located in area that had been recently logged. All native vegetation had been removed.

### VEGETATION

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
(Plot size: <u>30' r</u> )				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
Sapling/Shrub Stratum				
(Plot size: <u>10' r</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>80</u> x 3 = <u>240</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>85</u> (A) <u>250</u> (B) Prevalence Index = B/A = <u>2.94</u>
1. <u>Fraxinus latifolia</u>	<u>5%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
5% = Total Cover				
Herb Stratum				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
(Plot size: <u>5' r</u> )				
1. <u>Lolium perenne</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
80% = Total Cover				
Woody Vine Stratum				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
(Plot size: <u>10' r</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum	<u>20%</u>			

Remarks:  
Lolium perenne had been seeded for erosion control. Shrub layer newly sprouting natural vegetation.

**SOIL**

Sampling Point: 9

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	90	7.5YR 4/4	10	C	M	sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) **(except MLRA 1)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) <b>(except MLRA 1, 2, 4A, and 4B)</b>	<input type="checkbox"/> Water-Stained Leaves (B9) <b>(MLRA 1, 2, 4A, and 4B)</b>	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) <b>(LRR A)</b>		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No \_\_\_\_\_ Depth (inches): 15  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): 16  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No \_\_\_\_\_

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

Remarks:

Groundwater table observed. Plot located in subtle concave swale in area with consistent saturation signatures on aerial photographs.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 10  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 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 Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:  
 Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u>Rubus parviflorus</u>	10%	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2.	<u>Rubus armeniacus</u>	10%	Yes	FACU	
3.	<u>Corylus cornuta</u>	5%	Yes	FACU	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		25% = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u>Lolium perenne</u>	40%	Yes	FAC	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2.	<u>Galium aparine</u>	10%	No	FACU	
3.	<u>Geranium molle</u>	1%	No	NOL	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		51% = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum <u>49%</u>					

Remarks:  
Lolium perenne seeded for erosion control. Shrub layer newly sprouting natural vegetation.

**SOIL**

Sampling Point: 10

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100					sil	
8-16+	10YR 4/3	95	7.5YR 3/4	5	C	M	sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No **X**

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
Chroma of lower profile too bright to meet the definition of depleted matrix.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No **X** Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 (includes capillary fringe)

Wetland Hydrology Present?  
Yes \_\_\_\_\_ No **X**

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

Remarks:  
Soils were very dry and crumbly throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 11  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3-5  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:  
 Plot located in area that had been recently logged. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
0% = Total Cover					
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>55</u> (A) <u>169</u> (B) Prevalence Index = B/A = <u>3.07</u>
1.	<u>Symphoricarpos albus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
2.	<u>Rubus armeniacus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
2% = Total Cover					
Herb Stratum	(Plot size: <u>5' r</u> )				<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Lolium perenne</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Geranium molle</u>	<u>1%</u>	<u>No</u>	<u>NOL</u>	
3.	<u>Juncus effusus</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>	
4.	<u>Galium aparine</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
53% = Total Cover					
Woody Vine Stratum	(Plot size: <u>10' r</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
0% = Total Cover					
% Bare Ground in Herb Stratum		<u>47%</u>			

Remarks:  
 Woody vegetation newly sprouting natural vegetation. *Lolium perenne* seeded for erosion control.

**SOIL**

Sampling Point: 11

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-13	10YR 3/2	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:  
 Shovel refusal at 13 inches due to buried wood.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >13  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): >13  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No

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

Remarks:  
 Soils were very dry and crumbly throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 12  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 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 Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes <u>X</u>	No _____	
Remarks:			

**VEGETATION**

Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>80%</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. <u>Populus balsamifera</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>93%</u> (A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____
<u>90%</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>10' r</u>)</b>				
1. <u>Physocarpus capitatus</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	OBL species <u>90</u> x 1 = <u>90</u>
2. <u>Symphoricarpos albus</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	FACW species <u>100</u> x 2 = <u>200</u>
3. <u>Spiraea douglasii</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	FAC species <u>15</u> x 3 = <u>45</u>
4. <u>Corylus cornuta</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	FACU species <u>21</u> x 4 = <u>84</u>
5. <u>Populus balsamifera</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	UPL species <u>0</u> x 5 = <u>0</u>
<u>40%</u> = Total Cover				Column Totals: <u>226</u> (A) <u>419</u> (B)
Prevalence Index = B/A = <u>1.85</u>				
<b>Herb Stratum (Plot size: <u>5' r</u>)</b>				
1. <u>Carex obnupta</u>	<u>90%</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
2. <u>Polystichum munitum</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>91%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>10' r</u>)</b>				
1. <u>Rubus ursinus</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
<u>5%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>9%</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____				
Remarks:				

**SOIL**

Sampling Point: 12

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	95	7.5YR 3/4	5	C	M	sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Shovel refusal at 12 inches due to roots.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): >12  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): >12

Wetland Hydrology Present? Yes  No \_\_\_\_\_

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

**Remarks:**

Soils were moist throughout. No groundwater table after leaving pit open for >15 minutes. Plot located in lowest elevation area on the site with consistent saturation signature on aerial photographs. Hydrology re-check recommended during early spring to confirm wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 13  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 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 Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

**VEGETATION**

<u>Tree Stratum</u> (Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. <u>Quercus garryana</u>	60%	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. <u>Pseudotsuga menziesii</u>	30%	Yes	FACU	Total Number of Dominant Species Across All Strata: <u>7</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14%</u> (A/B)	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
90% = Total Cover				Total % Cover of: _____ Multiply by: _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10' r</u> )				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Corylus cornuta</u>	20%	Yes	FACU	FACW species <u>0</u> x 2 = <u>0</u>	
2. <u>Holodiscus discolor</u>	10%	Yes	FACU	FAC species <u>5</u> x 3 = <u>15</u>	
3. <u>Gaultheria shallon</u>	5%	No	FACU	FACU species <u>156</u> x 4 = <u>624</u>	
4. <u>Mahonia aquifolium</u>	5%	No	FACU	UPL species <u>0</u> x 5 = <u>0</u>	
5. <u>Ilex aquifolium</u>	1%	No	FACU	Column Totals: <u>161</u> (A) <u>639</u> (B)	
41% = Total Cover				Prevalence Index = B/A = <u>3.97</u>	
<u>Herb Stratum</u> (Plot size: <u>5' r</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Polystichum munitum</u>	5%	Yes	FACU	1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Carex leptopoda</u>	5%	Yes	FAC	2 - Dominance Test is >50%	
3. _____	_____	_____	_____	3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. _____	_____	_____	_____	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	5 - Wetland Non-Vascular Plants <sup>1</sup>	
6. _____	_____	_____	_____	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
10% = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>	
<u>Woody Vine Stratum</u> (Plot size: <u>10' r</u> )					
1. <u>Rubus ursinus</u>	80%	Yes	FACU		
2. _____	_____	_____	_____		
80% = Total Cover					
% Bare Ground in Herb Stratum <u>90%</u>					
Remarks:					

**SOIL**

Sampling Point: 13

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X      Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X      Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No X      Depth (inches): >16  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No X

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

Remarks:  
 Soils were dry throughout.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 14  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:  
 Plot located in area that had been logged recently. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0% = Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants <sup>1</sup> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
1.	<u>Fraxinus latifolia</u>	2%	Yes	FACW	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		2% = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
1.	<u>Lolium perenne</u>	80%	Yes	FAC	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		80% = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		0% = Total Cover			
% Bare Ground in Herb Stratum <u>20%</u>					

Remarks:  
 Lolium perenne had been seeded for erosion control. Shrub layer newly sprouting natural vegetation.

**SOIL**

Sampling Point: 14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100					sil	
8-16+	10YR 3/2	90	7.5YR 3/4	10	C	M	sil	

<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.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b>	<b>Secondary Indicators (2 or more required)</b>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): 16	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): 12	

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

Remarks: Scattered shallow ponding near plot.

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 15  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:  
 Plot located in area that had not been logged recently.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>91</u> x 3 = <u>273</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>92</u> (A) <u>275</u> (B) Prevalence Index = B/A = <u>2.99</u>
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )				
1.	<u>Lolium perenne</u>	<u>90%</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Juncus effusus</u>	<u>1%</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u>Juncus tenuis</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		<u>92%</u> = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum		<u>8%</u>			

Remarks:  
Lolium perenne seeded for erosion control.

**SOIL**

Sampling Point: 15

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100					sil	
12-16	10YR 4/2	90	10YR 4/4	10	C	M	sicl	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (**LRR A**)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No \_\_\_\_\_ Depth (inches): 15  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): 12  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No \_\_\_\_\_

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

Remarks:

**WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys and Coast Region**

Project/Site: Dyches Property City/County: Beaverton / Washington Sampling Date: 11/5/2014  
 Applicant/Owner: Ron Dyches State: OR Sampling Point: 16  
 Investigator(s): Stacey Reed and Stacy Benjamin Section, Township, Range: Sec 6, T1S, R1W  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion (LRR): A, Northwest Forests and Coast Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Unit 16C - Delena silt loam with 3-12% slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	<b>Is the Sampled Area within a Wetland?</b>	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:  
 Plot located in area that had been logged recently. All native vegetation had been removed.

**VEGETATION**

Tree Stratum	(Plot size: <u>30' r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
Sapling/Shrub Stratum	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
Herb Stratum	(Plot size: <u>5' r</u> )				
1.	<u>Lolium perenne</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
		<u>80%</u> = Total Cover			
Woody Vine Stratum	(Plot size: <u>10' r</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
		<u>0%</u> = Total Cover			
% Bare Ground in Herb Stratum <u>20%</u>					<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____

Remarks:  
Lolium perenne had been seeded for erosion control.

**SOIL**

Sampling Point: 16

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16+	10YR 3/2	100					sil	

<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.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No **X**

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

**Primary Indicators (minimum of one required; check all that apply)**

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

**Secondary Indicators (2 or more required)**

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No **X** Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 Saturation Present? Yes \_\_\_\_\_ No **X** Depth (inches): >16  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No **X**

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

Remarks:  
Soils were moist throughout.



## **APPENDIX D**

### **Historic Aerial Photographs**



SW-Alvord-Ln

SW-White-Birds-St

SW-Black-Birds-Ln

SW-Bobolink-St

SW-Ibis-Way

SW-Fulmar-Terrace

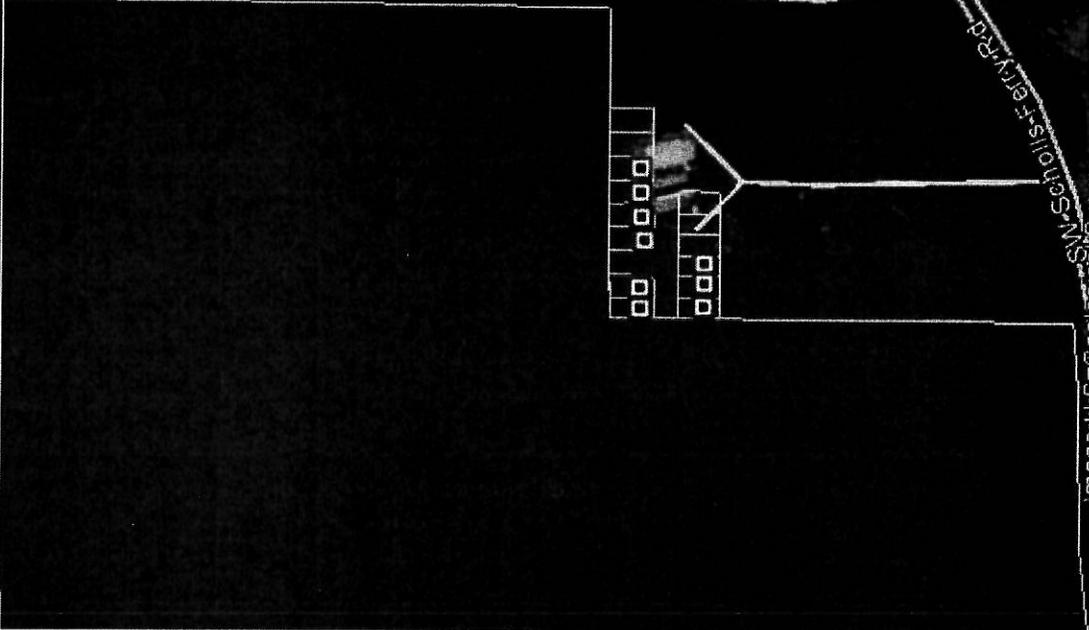
SW-Jaeger-Terrace

Curlew-Way

SW-Night-Heron-Ln

SW-C

SW-Onell-Ct



210

SW-Scholls-Ferry-Rd

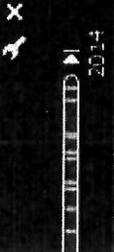
image: S - Ecological Survey

SW-175th-Ave

Beaverton, OR 97007

1253 ft

Imagery Date: 5/22/1994 lat 45.430521 lon -122.849226



SW-Alford Ln

SW-White-Bird-St

SW-Black-Bird

SW-Bobolink-St

SW-bis-Way

SW-Fulmar-Terrace

SW-Jacger-Terrace

Curlew-Way

SW-Night-Heron-Ln

210

SW-Schollers-Ferry-Rd

Imagery: S. Geological Survey

Beaverton, OR 97007

SW-175th-Ave

SW-Onell-Ct

1253 ft

Imagery Date: 4/30/2002 lat 45.430521 lon -122.849226

6/11/2007



2014



SW-Alvord-Len

SW-White-Bird-Sl

SW-Black-Bird

SW-Bobolink-S

Cure-Way

SW-Ibis-Way

SW-Fulmar-Terrace

SW-Jaeger-Terrace

SW-Nightheron-Ln

SW-O'Neill-Ct

210

SW-Schollis-Erlyrd

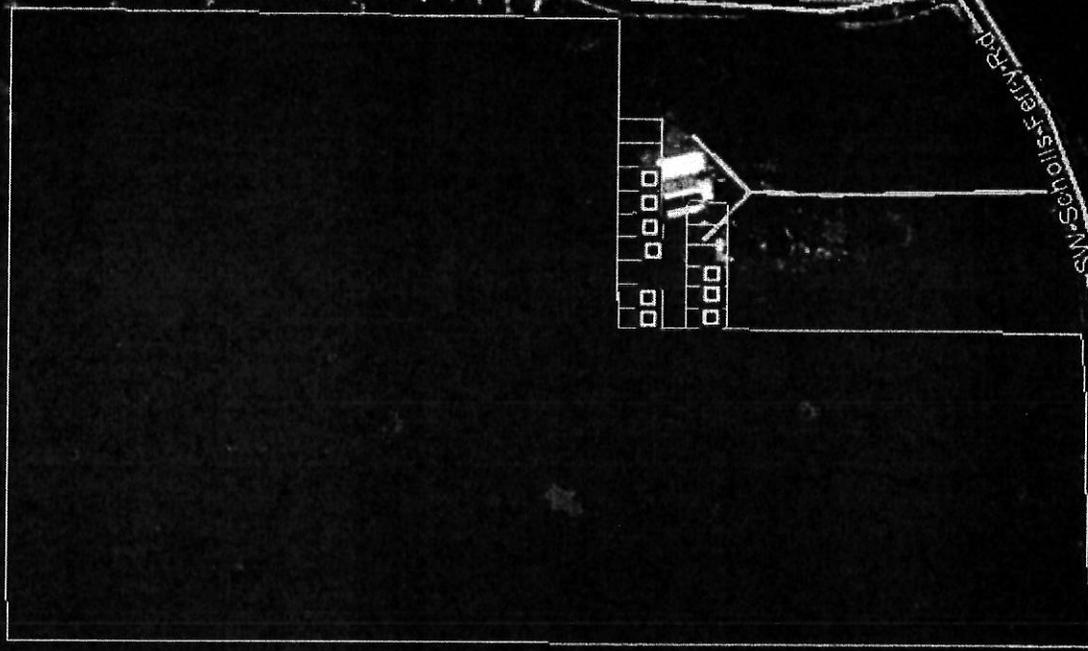
SW-Digit-Globe

Beaverton, OR 97007

SW-475th-Ave

1253 ft

lat 45.430521 lon -122.849226



7/23/2012

SW-Aivord Ln

SW-White-Bird St

SW-Bias Bird Ln

SW-Bobolink Way

SW-Ibis Way

SW-Fulmar Terrace

SW-Jaeger Terrace

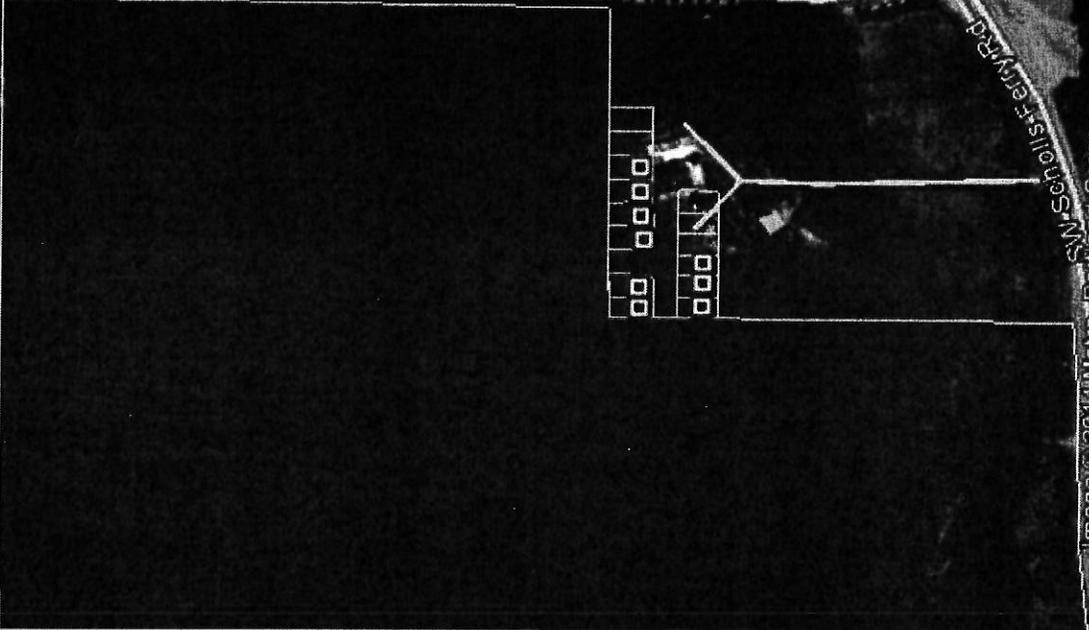
Curve Way

SW-C

SW-Night-Heron Ln

210

SW-O'Neill Ct



SW-Scholl-Sherford

Imagery © 2014 Metro, Portland Oregon

SW-475th Ave

Beaverton, OR 97007

1253 ft

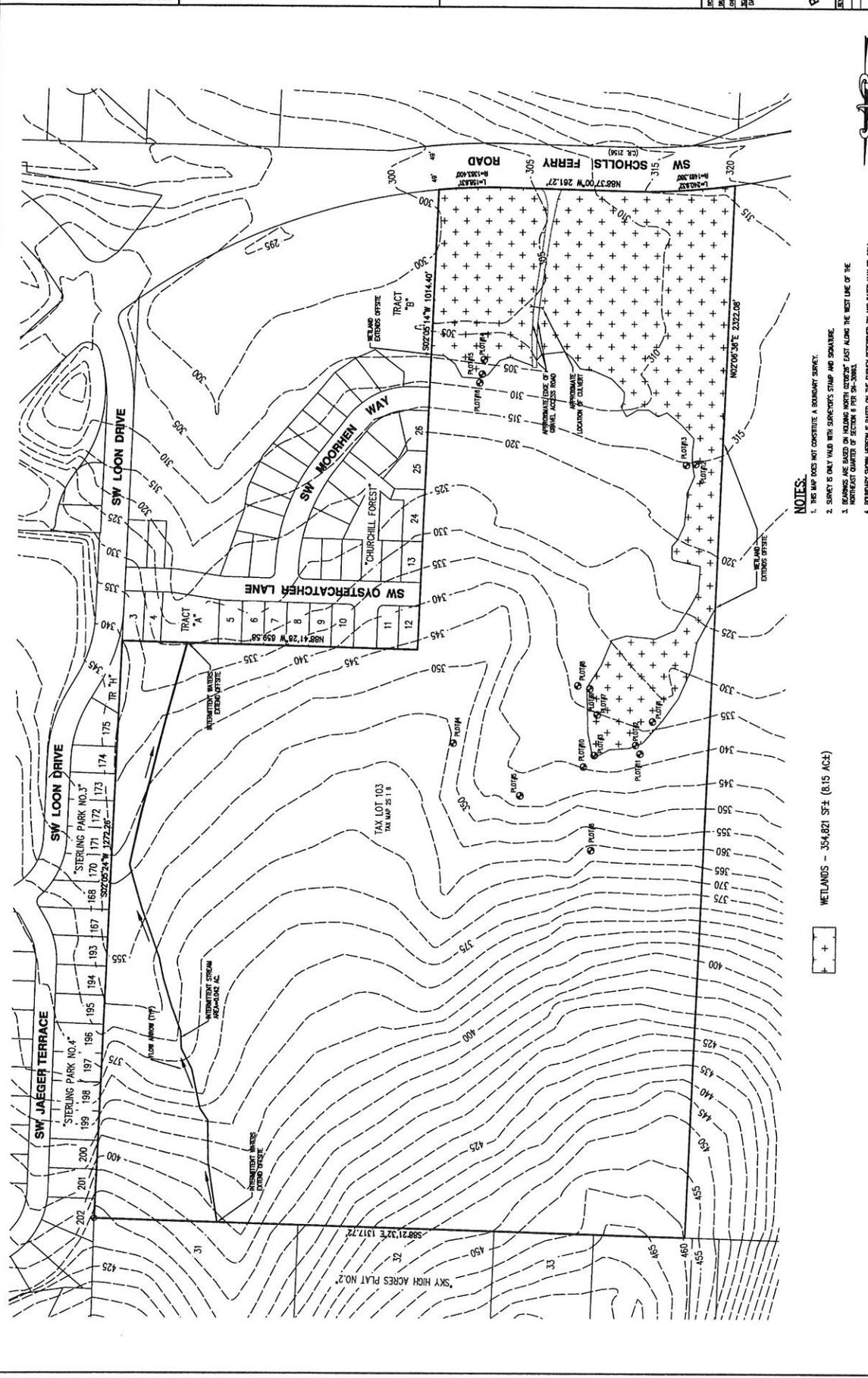
Imagery Date: 7/23/2012 lat 45.430521° lon -122.849226°



## **APPENDIX E**

**Photo Location Map and  
Ground-level Site Photographs**





- NOTES:**
1. THIS MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY.
  2. SURVEY IS ONLY VALID WITH SURVEYOR'S STAMP AND SIGNATURE.
  3. WETLAND BOUNDARIES ARE BASED ON THE SURVEY PERFORMED BY AMS DATED MAY 27, 2014.
  4. BOUNDARY SHOWN HEREON IS BASED ON THE SURVEY PERFORMED BY AMS DATED MAY 27, 2014.
  5. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  6. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  7. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  8. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  9. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  10. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  11. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  12. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  13. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  14. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  15. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  16. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  17. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  18. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  19. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.
  20. WETLAND BOUNDARIES WERE PLACED IN THE FIELD BY STACY REED, PLS, ON NOVEMBER 5, 2014.

WETLANDS - 354,821 SF ± (8.15 AC ±)



Dyches Property Wetland and Waters Delineation  
AKS Job No. 3303

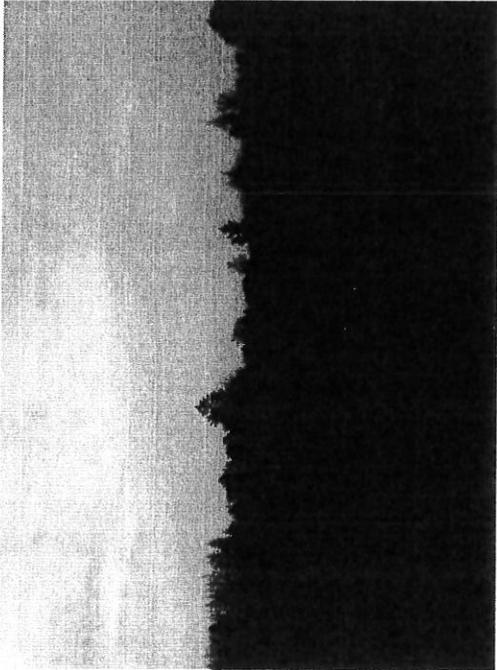


Photo A. View southwest of site.



Photo C. View southwest of wetland Plot 1.

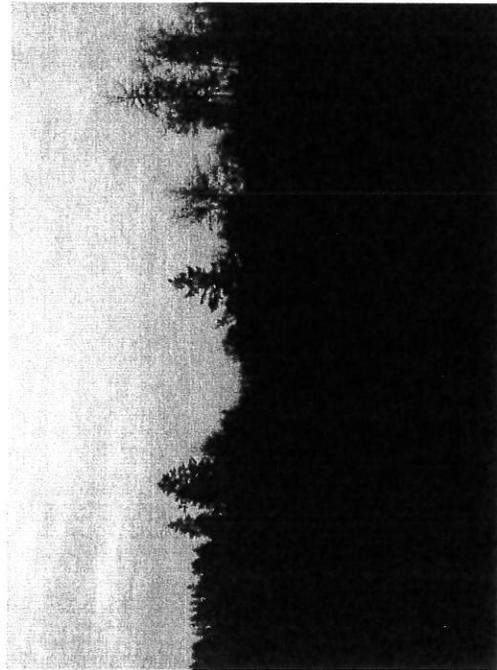


Photo B. View southwest of recently logged wetland.

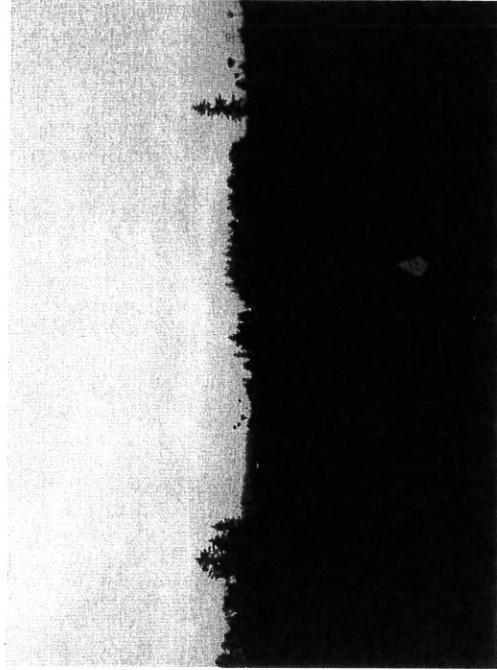


Photo D. View southwest of upland Plot 4.

Dyches Property Wetland and Waters Delineation  
AKS Job No. 3303

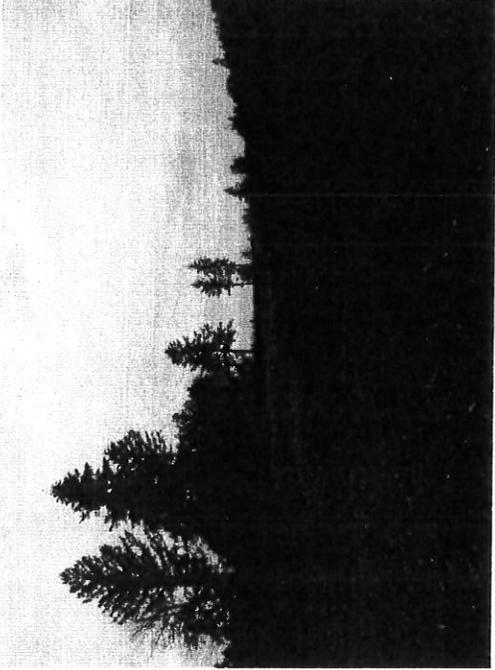


Photo E. View southwest of wetland boundary.

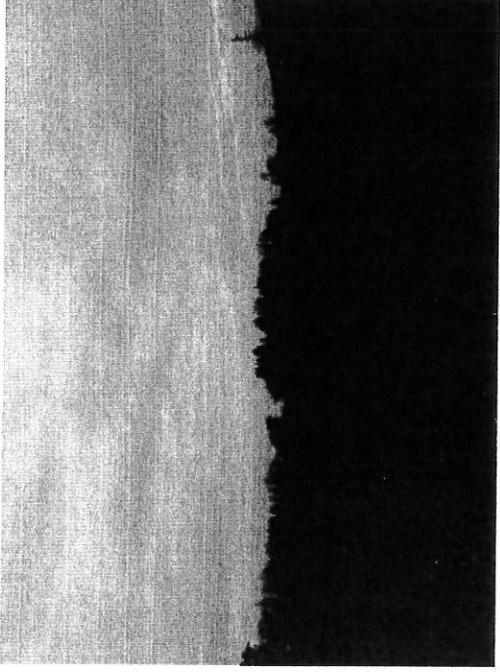


Photo G. View northeast of wetland in recently logged area.

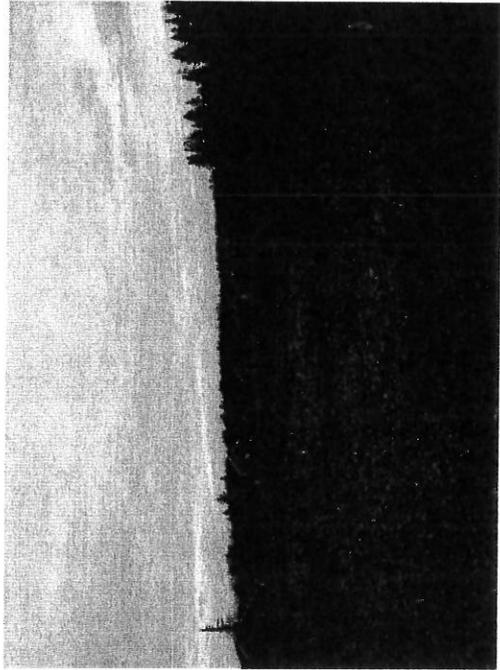


Photo F. View northeast of Plots 8 and 9.



Photo H. View south of wetland Plot 12.

Dyches Property Wetland and Waters Delineation  
AKS Job No. 3303

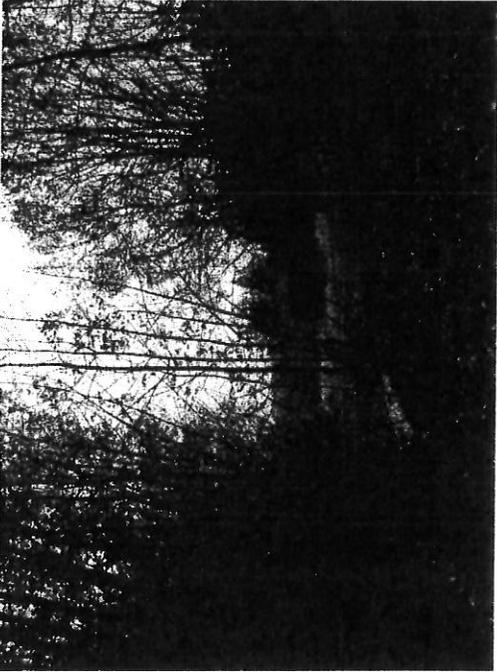


Photo I. View east of drainage through PSS in southern portion of site.



Photo K. View north of intermittent drainage in eastern portion of site.

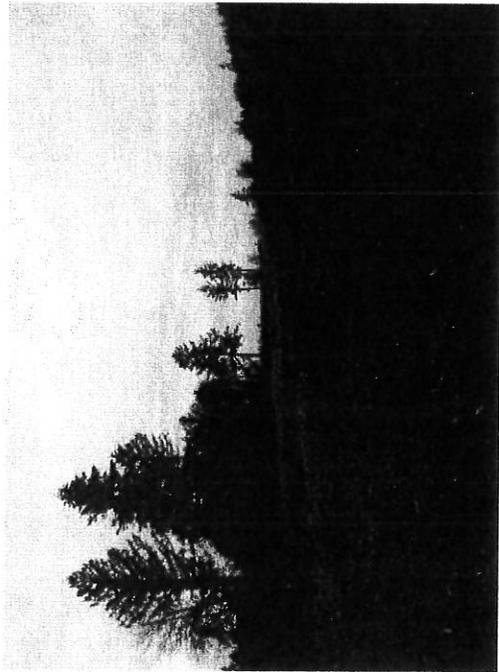


Photo J. View west of wetland in the southeast portion of site.



Photo L. View north of intermittent drainage.

## Dan Grimberg

---

**From:** Ron Dyches <ron@orthomedinc.com>  
**Sent:** Tuesday, November 25, 2014 10:45 PM  
**To:** Dan Grimberg  
**Subject:** Fwd: Wetland Report email 1 of 3  
**Attachments:** image001.jpg; ATT00001.htm; 3303 \_Dyches\_WetlandReport\_112614\_Part1.pdf; ATT00002.htm

Attached is report 1 of 3. I just received it tonight.

Best,

Ron Dyches  
Orthomed, Inc.  
[www.orthomedinc.com](http://www.orthomedinc.com)  
503.234.9691

**From:** "Stacey Reed" <StaceyR@aks-eng.com>  
**To:** "Ron Dyches" <ron@orthomedinc.com>  
**Subject:** Wetland Report email 1 of 3

Hi Ron,

Due to file size, the wetland report will come through in 3 separate emails.

Please review the report and let me know if you have any questions.

Thank you!

Stacey Reed, PWS  
Wetland Scientist  
[cid:image001.jpg@01D008BC.2E96E820]  
AKS ENGINEERING & FORESTRY  
12965 SW Herman Road, Suite 100  
Tualatin, OR 97062  
P:503.563.6151 x211  
F:503-563-6152  
C:503-956-2550  
[www.aks-eng.com](http://www.aks-eng.com)<<http://www.aks-eng.com>/> [StaceyR@aks-eng.com](mailto:StaceyR@aks-eng.com)<<mailto:StaceyR@aks-eng.com>>  
Offices in: Tualatin, OR | Salem, OR | Vancouver, WA

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