



SCHOTT & ASSOCIATES
Ecologists & Wetlands Specialists

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**NATURAL RESOURCE OVERLAY DISTRICT
REPORT**

**FOR
19371 PEASE ROAD
OREGON CITY**

Prepared for:

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April 2015
S&A #2366

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(A) Landscape Setting and Land Use

The approximate 2.31 acre property is located northwest of S Pease Rd at 19371 S Pease Road in Clackamas County, Oregon City, Oregon (T3S, R2E, Sec. 7B, TL 2300). The rectangular shaped subject property is bordered by residential homes on all sides and a water detention pond to the northeast.

The property has a slight slope to the southwest. The property is accessed from South Pease Road by a dirt road that heads northwest, forks about 50' into the property, reattaching a few hundred feet further up the drive. To the west of the reconnected dirt drive, approximately half way up the property, is a small house with two associated storage buildings. The dirt road continues north, northwest up the property before fading out. The southern half of the property is forested with Oregon white oaks (*Quercus garryana*), bigleaf maples (*Acer macrophyllum*), douglas fir trees (*Pseudotsuga menziesii*) and scattered cherry trees in the overstory. The understory contained large patches of Himalayan blackberry (*Rubus armeniacus*) as well as clusters snowberry (*Symphoricarpos albus*), Oregon grape (*Mahonia aquifolium*) and a laurel variety. The herbaceous layer was very mixed with geranium, ivy, sword fern and non-native grasses.

The northern portion had scattered trees and a large amount of Himalayan blackberry.

(B) Site Alterations

The Natural Resource Overlay District (NROD) map indicates a drainage way crossing a portion of the southern half of the property. The drainage way culverted when the subdivision to the northeast was constructed. A water detention pond was put in off site to the east and water was piped to Pease Road.

(C) Site Specific Methods

Prior to visiting, site information was gathered, including aerial photographs provided by Google Earth, the soil survey (NRCS web soil survey), the Natural Resource Overlay District map as well as the Local Wetland Inventory and National Wetland Inventory. The USGS topography map was also reviewed prior to site visits.

Schott and Associates initially walked the subject property to assess the presence or absence of onsite wetlands and waters and collected data. Sample plots were placed where mapped information, geomorphic location or vegetation indicated the possibility of wetlands or waterways. For each sample plot, data on vegetation, hydrology and soils was collected, recorded in the field and later transferred to data forms. (Appendix B)

(D) Description of All Wetlands and Waterways onsite.

The entire site was walked. In the area mapped as a protected resource on the NROD map 2 sample plots were taken as well as supporting photographs. Based on soil, vegetation and hydrology data taken in the field no wetland or waterways were found. Most of the vegetation was from the upland community and consisted of Douglas fir, Oregon white oak, Himalayan blackberry, snowberry, swordfern, ivy and geranium (sp1 at Photo point 2, sp2 at Photo point 3). Soils were a very bright mix of 10YR3/3 and 4/3.

No hydrology was observed. Sample plots and Photo points have been placed on the NROD map within the mapped drainage area.

(E) Deviation from NROD map

There is a Local NROD map showing a protected drainage on the site. This drainage no longer exists due to development and a detention pond to the northeast-rerouting any water onsite. There are no wetlands or waterways onsite.

(F) Results and Conclusions

Based on soil, vegetation and hydrology data taken in the field no wetlands or waterways were found onsite. Vegetation was dominated by an upland community. Soils were not hydric and no hydrology was observed. The soil survey map for Clackamas County mapped Jory silt loam on a majority of the site and Bornstedt silt loam in the northwest corner of the site. Neither soil is listed as hydric. The NROD map showed a protected area on site that was not consistent with our findings. No drainage was found on the property.

Appendix A: Maps

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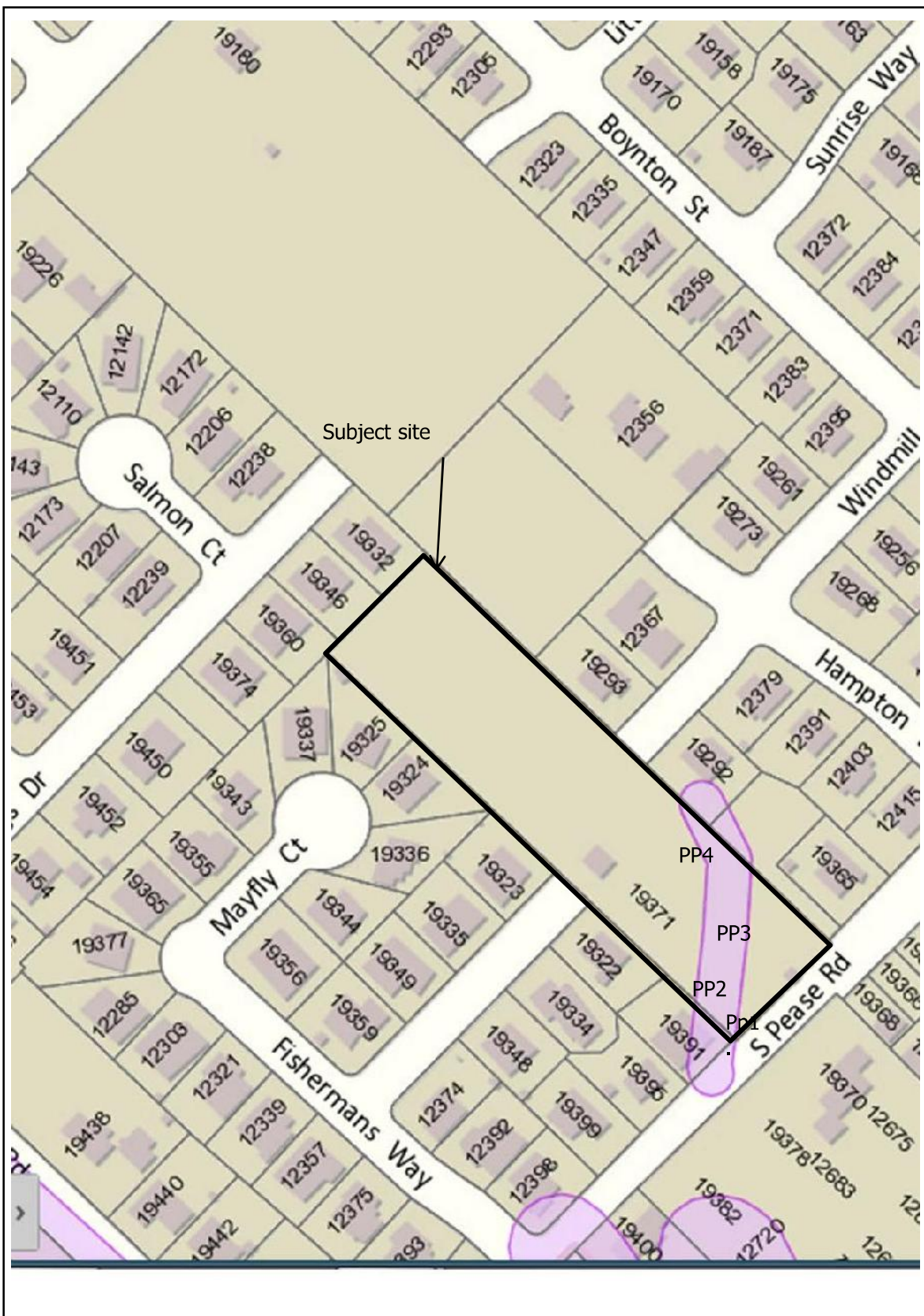
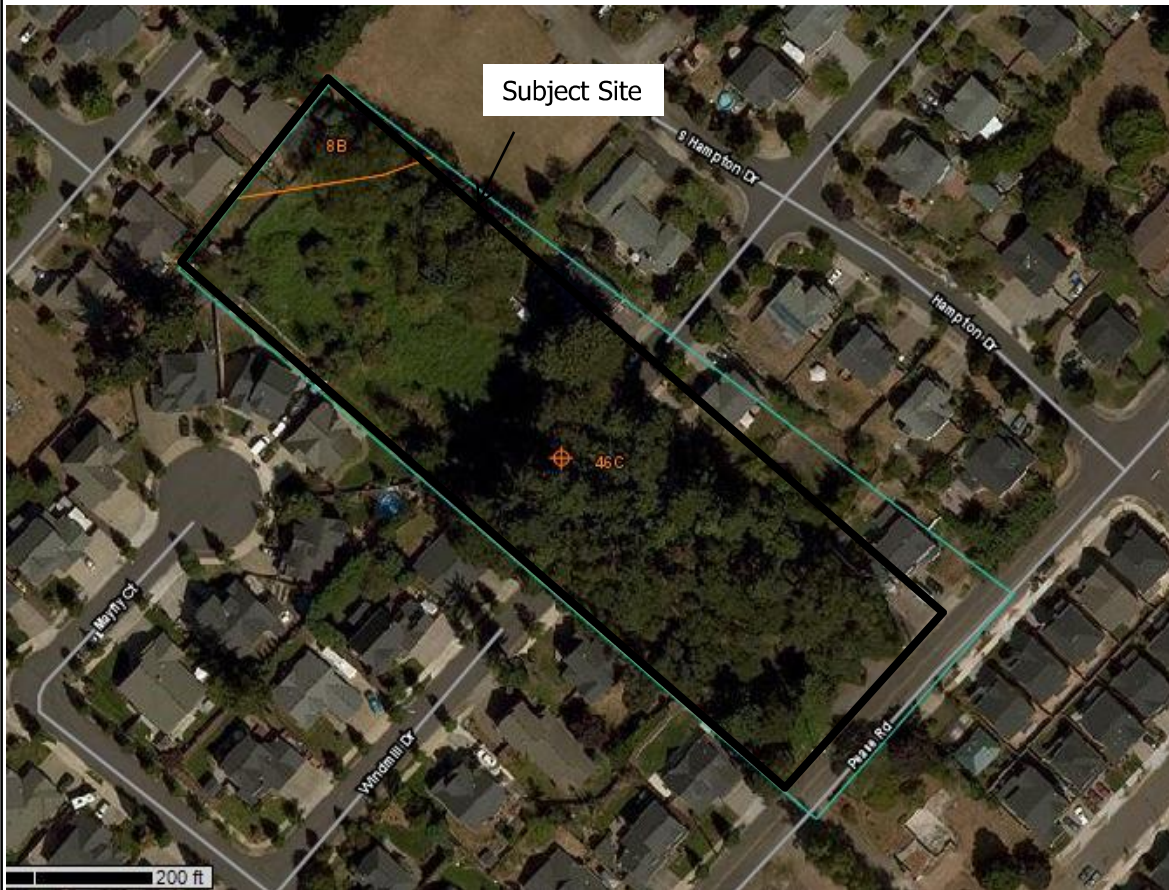


Figure 2: NROD Map
Pease Road
S&A 2366

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Soils Legend
8B-Bornstedt silt loam-non hydric
46C-Jory stony silt loam-non hydric

Figure 3: Soils Map
Pease Rd
S&A 2366

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Figure 4: Aerial Photo
Pease Road
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Appendix B: Data Forms

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

Project/Site: 19371 S Pease Road City/County: Oregon City, OR Sampling Date: 4-8-15
 Applicant/Owner: Rick Givins State: OR Sampling Point: Sp1 at PP2
 Investigator(s): CLC Section, Township, Range: 7 3S 2E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1-3
 Subregion (LRR): A Lat: 45.32659 Long: -122.61328 Datum:
 Soil Map Unit Name: Jory Stony Silt Loam NWI classification:

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 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 ☐ No ☒

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus garryana		30	X	FACU
2. Pseudotsuga menziesii		20	X	FACU
3. Prunus sp		5		FACU
4.				
		55	= Total Cover	

Sapling/Shrub Stratum	(Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. Rubus armeniacus		70	X	FACU
2. Mahonia aquifolium		10		FACU
3.				
4.				
5.				
		80	= Total Cover	

Herb Stratum	(Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. Geranium sp		5		
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
			= Total Cover	

Woody Vine Stratum	(Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
			= Total Cover	

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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 = ☐

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- 5 - Wetland Non-Vascular Plants¹
- Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes ☐ No ☒

Remarks: understory was mainly covered in Himalayan blackberry.

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 ¹	Loc ²		
0-18	10YR3/3-4/3	100						Mixed-likely fill

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.
²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

☐ Histosol (A1)

☐ Sandy Redox (S5)

☐ Histic Epipedon (A2)

☐ Stripped Matrix (S6)

☐ Black Histic (A3)

☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)

☐ Hydrogen Sulfide (A4)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Below Dark Surface (A11)

☐ Depleted Matrix (F3)

☐ Thick Dark Surface (A12)

☐ Redox Dark Surface (F6)

☐ Sandy Mucky Mineral (S1)

☐ Depleted Dark Surface (F7)

☐ Sandy Gleyed Matrix (S4)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

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

³Indicators 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)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Secondary Indicators (2 or more required)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
(includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
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: 19371 S Pease Road City/County: Oregon City, OR Sampling Date: 4-8-15
 Applicant/Owner: Rick Givins State: OR Sampling Point: SP2 at PP3
 Investigator(s): CLC Section, Township, Range: 7 3S 2E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 1-3
 Subregion (LRR): A Lat: 45.32659 Long: -122.61328 Datum:
 Soil Map Unit Name: Jory Stony Silt Loam NWI classification:

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 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 ☐ No ☒

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Quercus garryana</u>		30	X	FACU
2. <u>Pseudotsuga menziesii</u>		20	X	FACU
3. <u>Prunus sp</u>		5		FACU
4. <u></u>				
		55	= Total Cover	

Sapling/Shrub Stratum	(Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rubus armeniacus</u>		40	X	FACU
2. <u>Mahonia aquifolium</u>		20	x	FACU
3. <u>Crataegus monogyna</u>		10		FAC
4. <u>Symphoricarpos albus</u>		20	x	FACU
5. <u></u>				
		90	= Total Cover	

Herb Stratum	(Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Geranium sp</u>		50	X	FACU
2. <u>Polystichum munitum</u>		20	X	FACU
3. <u></u>				
4. <u></u>				
5. <u></u>				
6. <u></u>				
7. <u></u>				
8. <u></u>				
9. <u></u>				
10. <u></u>				
11. <u></u>				
		70	= Total Cover	

Woody Vine Stratum	(Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Hedera helix</u>		25	X	FACU
2. <u></u>				
			= Total Cover	

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 7 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of: Multiply by:

OBL species	<u></u>	x 1 =	<u></u>
FACW species	<u></u>	x 2 =	<u></u>
FAC species	<u></u>	x 3 =	<u></u>
FACU species	<u></u>	x 4 =	<u></u>
UPL species	<u></u>	x 5 =	<u></u>
Column Totals:	<u></u> (A)		<u></u> (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0¹
- ☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants¹
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes ☐ No ☒

Remarks:

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				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR3/3	100						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

☐ 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 Soils³:

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

³Indicators 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 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)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> (LRR A)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
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?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
(includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Appendix C: Ground Level Photographs



Photo Point 1 facing northeast



Photo Point 2 facing northeast



Photo Point 3 facing west



Photo Point 3 facing southeast



Photo Point 3 facing northwest



Photo Point 4 facing southwest



Photo Point 4 facing south

Appendix D: References

- Environmental Laboratory, 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS.
- Environmental Laboratory, 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Version 2.0)*, Wetlands Regulatory Assistance Program ERDC/EL TR-10-3 U.S. Army Engineer Research and Development Center. Vicksburg, MS.
- Federal Interagency Committee for Wetland Delineation, 1989. *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S.D.A. Soil Conservation Service, Washington, D.C. Cooperative technical publication. 138 pp.
- Federal Register, 1980. 40 CFR Part 230: Section 404(b)(1), *Guidelines for Specification of Disposal Sites of Dredged or Fill Material*, Vol. 45, No. 249, pp. 85352-85353, U.S. Govt. Printing Office, Washington, D.C.
- Federal Register, 1982. Title 33, *Navigation and Navigable Waters; Chapter II, Regulatory Programs of the Corps of Engineers*. Vol. 47, No. 138, p. 31810, U.S. Govt. Printing Office, Washington, D.C.
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- Kollmorgen Corporation, 1975. *Munsell Soil Color Charts*. Macbeth Division of Kollmorgen Corporation, Baltimore, MD.
- U.S. Army Corps of Engineers – Cold Regions Research and Engineering Laboratory (CRREL). 2012. *State of Oregon NWPL – Final Draft Ratings*
- U.S. Department of Agriculture, Web Soil Survey *Soil Survey of Clackamas County, Oregon*. U.S.D.A. Soil Conservation Service, Washington, D.C.,



CARI CRAMER

Cari joined Schott & Associates in 2006. With an Applied Science degree in Landscape Technology from Portland Community College, and a two year landscaping design certification, her knowledge within the plant species industry is well established. Cari has completed a wide variety of certified training to include wetland delineations, advanced wetland soils, hydrology and plants of the Pacific Northwest at Portland State University.

Since joining Schott & Associates she has conducted numerous projects to include: wetland determinations, wetland delineations, significant natural resources (Washington County), natural resource assessments (Clean Water Services) and numerous mitigation monitoring projects. Her latest projects include yearly mitigation monitoring.

Education

Associates of Applied Science Degree in Landscape Technology (1988), PCC
Two Year Certificate in Landscape Design (1988), PCC
Biology 202, Botany (2005), PCC

Special Training

Wetland Delineation Certification (2004-05), Portland State University
Advanced Soils & Hydrology (2004-05), Portland State University
Wetland Plants of the Pacific Northwest (2004-05), Portland State University
Western Regional Supplement (2008)
Western Mountains, Valleys & Coasts Delineation Manual Supplement (2008)

Work History

2006 - Present	Schott and Associates Ecologists & Wetland Specialists, Aurora, OR
1996-2005	Bizon Landscape, Sherwood, OR
1988-1996	Landscape West, Tualatin OR

SELECTED PROJECT EXPERIENCE

A site visit was conducted, data collected and applicable reports written for the following projects:

Churchhill Forest (Forest Glen)-Washington County

Cari was part of a two man team that delineated the wetlands on the site. In addition, a Sensitive Lands Report with a mitigation plan was prepared for this proposed residential subdivision. A Service Provider Letter was issued February 19, 2008. Wetland fill permit applications were prepared and wetland fill permits were obtained. She has been monitoring the wetland and buffer mitigation areas to insure they develop as intended.

Home Depot, Warrenton, Oregon

Conducted fieldwork and submitted a wetland delineation for a new Home Depot in Warrenton, Oregon. A wetland fill permit application for 0.107 acres of impact was submitted and approved by the Department of State Lands and US Army Corps of Engineers (COE) in 2007. A mitigation plan for 0.172 acres of compensatory mitigation was included in the application. Agency communication and support provided through all phases of the project. The mitigation area was monitored for five years.

Liberty High School-Hillsboro School District-Washington County

A Sensitive Lands Report, with a mitigation plan was prepared for the proposed redevelopment of an existing fill pad into an athletic field. A Service Provider Letter was issued January 3, 2007.

Lincoln Center II- Washington County

A delineation report was written which was concurred with on May 8, 2008 for this proposed Commercial Development Project.

Carmichael Estates-Happy Valley-Clackamas County

A delineation report was written which was concurred with November 5, 2007 for the proposed lot subdivision to add an additional residence.

WL Henry Elementary School- Hillsboro School District- Washington County

A portable classroom was proposed behind the school. A Sensitive Lands report was written and a Service Provider Letter was issued February 12, 2007

Boones Ferry Road-LaFontain Project- Lake Oswego-Clackamas County

A delineation report was written which was concurred with April 21, 2008 for a proposed lot subdivision.

Swan Avenue Subdivision-Oregon City-Clackamas County

A delineation report was written which was concurred with December 5, 2007 for the proposed residential subdivision.

Lucille Street-Happy Valley-Clackamas County

A delineation report was written which was concurred with June 6, 2008 for a proposed lot division.

Claus Subdivision-Sherwood-Washington County

A residential subdivision was proposed. A delineation report was written which was concurred with November 4, 2008. A Sensitive Lands report with a mitigation plan was written and a Service Provider Letter was issued November 10, 2008.

Village of Scholls-Beaverton-Washington County

A lot partition and a final plat of the subject property was proposed. A Sensitive Lands report with a mitigation plan was written and a Service Provider letter was issued July of 2009.

Mitigation Monitoring Sites-Oregon and Washington

Over 40 Mitigation Monitoring sites are visited twice yearly for the Department of State Lands (DSL) and the Army Corps of Engineers - once in the spring for Hydrology Monitoring and one in the late summer to assess vegetation. A report is written for each mitigation site and submitted to DSL and the Corp.

MARTIN R. SCHOTT, Ph.D., PWS

Dr. Schott is a wetland specialist/ ecologist/botanist/range and wildlife scientist with 30 plus years of project experience, including: wetland delineation, mitigation, permitting, construction monitoring and mitigation monitoring; threatened and endangered species surveys; botanical surveys; range management; wildlife habitat assessments and expert testimony. He is familiar with NEPA, CEQA, SEPA, and has worked on environmental check-lists, environmental assessments, biological assessments and environmental impact statements. He has worked on a wide range of projects, including; electrical facilities, wind farms, general aviation airports, sewer lines, mining, highways, light rail, destination resorts, housing developments, shopping centers, reservoirs, hydroelectric dams, range and wildlife management plans throughout the west.

Education

Ph.D. Ecology (1984), New Mexico State University
MS Range Ecology (1981), University of Idaho
BS Range Science (1978), Oregon State University
BS Biology (1975), University of Oregon

Special Training

Basic Wetland Delineation (1990), Wetland Training Institute
Wetlands in Oregon (1990), CLE International
Environmental Law & Management (2000)
Mitigation Goals, Objectives & Success Criteria Workshop (2001)
Arid Land West Regional Supplement (2006)
Western Regional Supplement (2008)
Oregon Rapid Wetland Assessment Procedure (2009)
Oregon Stream flow Duration Assessment Method (2009)

Work History

1993 To Present	Schott & Associates, Inc.
1992 - 1993	Natural Resource Program Leader, ASCG, Inc., Portland, Oregon
1990 - 1992	Senior Scientist, SHAPIRO & Associates, Portland, Oregon
1988 - 1990	Senior Scientist, BEAK Consultants, Inc. Portland, Oregon
1985 - 1988	Research Associate, Oregon State University, Corvallis, Oregon

SELECTED PROJECT EXPERIENCE

Goering Air-Park, Alfalfa, OR. The Goering's own a section of land (Section 16), which is surrounded by BLM land. There is an existing airstrip, hanger, and house on the property. They intend on developing the land into an airpark, which would include up to 32 residences and additional airplane hangers. Crook County had mapped the area and surrounding vicinity as critical deer wintering area. Schott assessed the habitat for deer, elk and antelope. The BLM land is a designated Off Highway Vehicle recreation area, and it receives heavy use. In addition the site is in poor ecological condition. Between the heavy disturbance and poor ecological condition the property proved to be very poor wintering range for big game.

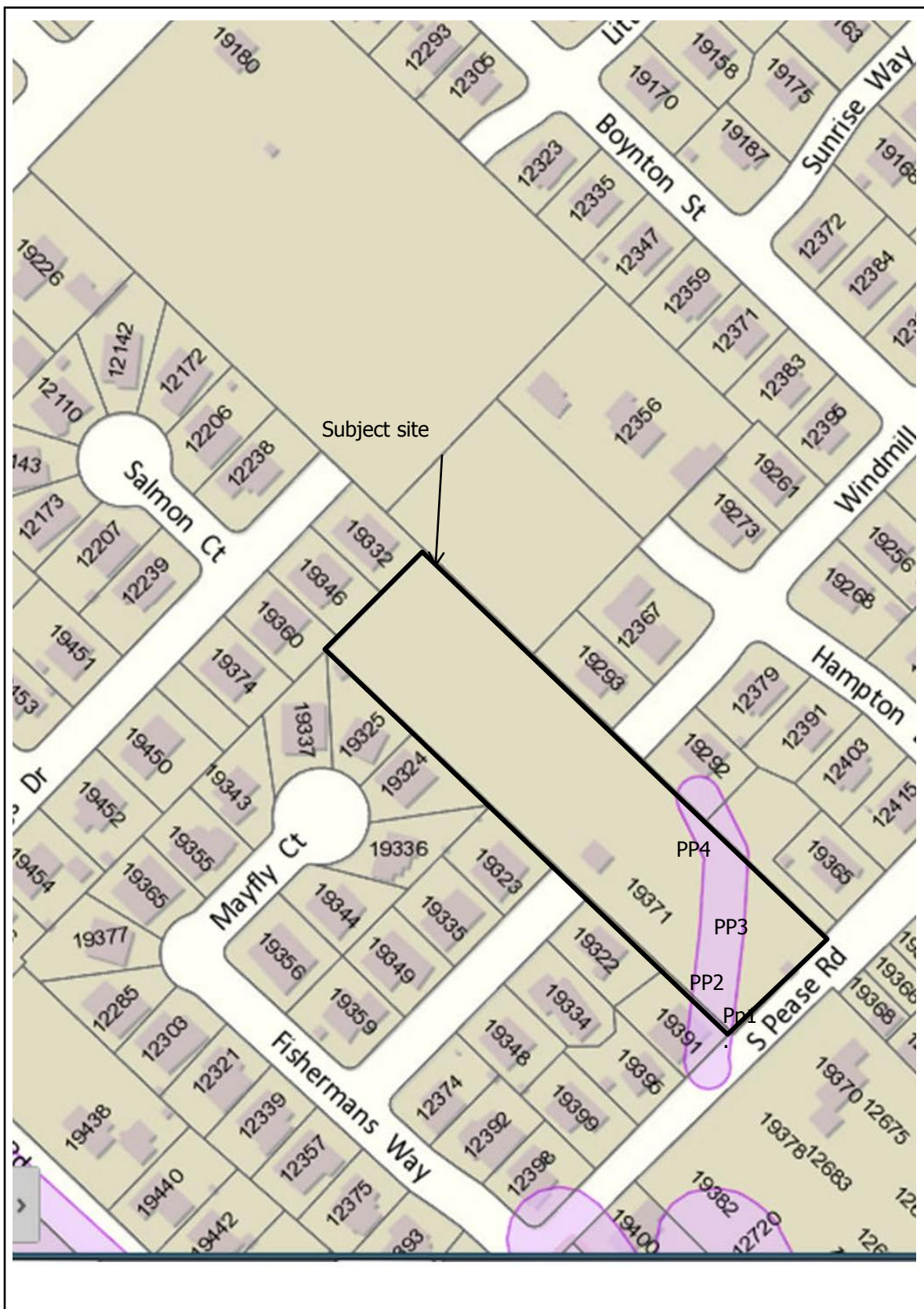


Figure 2: NROD Map
Pease Road
S&A 2366

Schott & Associates
P.O. Box 589
Aurora, OR. 97002
503.678.6007



Photo Point 1 facing northeast into area mapped as a drainage



Photo Point 2 facing northeast into area mapped as drainage



Photo Point 3 while standing in driveway within mapped drainage area and facing west



Photo Point 3 in same place and facing southeast



Photo Point 3 while standing on driveway that is within mapped drain and facing northwest



Photo Point 4 at north end of mapped drainage and facing southwest



Photo Point 4 at north end of mapped drainage and facing south



COMPANY PROFILE

Schott & Associates, founded in 1993 by Martin Schott, Ph.D. provides professional natural resource services to business and government agencies.

Services provided include; wetland determinations, wetland delineations, wetland inventories, wetland mitigation design, wetland permitting, wetland assessments, wetland mitigation construction monitoring, wetland mitigation monitoring, and wetland management plans. We are very experienced with Section 404b of the Clean Water Act, and Oregon's ORS's and OAR's concerning wetlands.

We are thoroughly familiar with the Endangered Species Act, and have prepared numerous Biological Assessments. In addition, we have conducted Threatened and Endangered species surveys for both plants and wildlife. Our staff has experience with bird, amphibian and mammal surveys and have done numerous wildlife habitat assessments. We are very familiar with many local government environmental regulations and regularly submit reports to jurisdictions throughout the region. One of our services is to provide expert testimony at public hearings, and court cases.

Representative Projects:

Echanis Wind Farm, SE Oregon	Hermiston Wetland Inventory, Hermiston, OR
Stonegate Subdivision, Medford, OR	Normal Ave Housing Development, Ashland, OR
Macadam Ridge Housing, Portland, OR	Interstate Crossroads Industrial, Portland, OR
Grand Island Gravel, Yamhill County, OR	Walmart, Warrenton, Oregon
Deer Habitat Assessment, Prineville, OR	Maryville Golf Course, Corvallis, OR
Vernal Pool Delineation, Rogue River Rd, Medford, OR	

Services:

Wetland Determinations	Threatened and Endangered Plant Surveys
Wetland Delineations	Threatened and Endangered Animal Surveys
Wetland Inventories	Biological Assessments
Wetland Mitigation Design	Wildlife Habitat Assessments
Wetland Construction Monitoring	Significant Natural Resource Assessments
Wetland Mitigation Monitoring	Wildlife Surveys
Wetland Management Plans	Risk Assessments
Expert Witness Testimony	Botanical Surveys