

# CRITICAL AREAS REPORT

## Breeze Creek Trails, LLC Property

Tax Parcel 986044822  
NE Ivy Avenue & E 2<sup>nd</sup> Way  
La Center, WA 98629



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### Applicant:

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Date: June 21, 2022



# Executive Summary

This report details the results of a critical areas report conducted by Cascadia Ecological Services, Inc. (CES) on behalf of the applicant, Holly Schlentz, for Clark County Tax Parcel 986044822. This report identifies the extent of critical areas identified within or in the immediate vicinity of the study area, as defined and regulated by Chapter 18.300 of the City of La Center Municipal Code (City of La Center, 2022).

The proposal is to construct a residential subdivision on the 4.87 acre property which is zoned as Low Density Residential (LDR-7.5). The property is located within the jurisdiction of the City of La Center in the NE ¼ of Section 03, Township 4N, Range 1E of the Willamette Meridian.

During a site visit completed by Cascadia Ecological Services, Inc. (CES) staff on June 17, 2022, it was determined that depression wetlands exist in the south part of the study area. Breeze Creek is located off-site to the north of the property. These critical areas are regulated by the City of La Center.

No other sensitive plant, fish, or wildlife species are currently known to occur within the confines of the study area. This report documents the investigation, best professional judgment, and conclusions of CES. It is recommended that the findings in this report be verified by the City of La Center prior to the commitment of significant planning and financial resources to the project.

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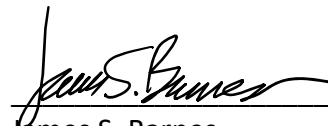
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# Acronyms and Abbreviations

Applicant	Holly Schlentz
CES	Cascadia Ecological Services, Inc.
DNR	Department of Natural Resources
HUC	Hydrologic Unit Code
LCCAO	La Center Critical Areas Ordinance
OHWM	Ordinary High Water Mark
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Area

## **Statement of Qualifications**

Cascadia Ecological Services, Inc. (CES) is a multi-disciplined environmental consulting company based in Vancouver, Washington. CES was established in 2001 and specializes in wetland delineation, habitat assessment, permitting, and mitigation. This report was completed by James Barnes, president and owner of CES. The information contained herein documents the investigation, best professional judgment, and recommendation of CES. All assumptions made and relied upon are complete and accurate.



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James S. Barnes  
President  
Cascadia Ecological Services, Inc.



# Chapter 1. Introduction

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The Applicant contracted with CES to complete a critical areas report for a proposed residential subdivision on vacant Tax Parcel 986044822 which is located west of NE Ivy Avenue & E 2<sup>nd</sup> Way in La Center, Washington.

The purpose of the report is to identify and describe regulated critical areas, and sensitive plant, fish, and wildlife species within the confines or immediate vicinity of the study area. This report facilitates the applicant's efforts to:

1. Avoid or minimize impacts to critical areas during the project design process.
2. Document critical area boundary determinations for review and verification by the City of La Center.
3. Provide early indications of sensitive species within the study area.
4. Provide background information for a future critical areas mitigation plan, if required.

This report is anticipated to support permits locally through the City of La Center.

## Chapter 2. Project Information

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### 2.1 Location

Site Location: The study area is located west of NE Ivy Avenue & E 2<sup>nd</sup> Way in La Center, Washington (Figure 1 of 6). There is no address currently assigned to the property.

Study area: 4.87 acres

Tax Parcel: 986044822

County: Clark

Section, Township and Range: NE 1/4, S03, T4N, R1E of the Willamette Meridian

Latitude/Longitude: 45.85971 N. / -122.66270 W

WRIA: 27 - Lewis watershed

HUC: 17080005 – Lower Cowlitz

### 2.2 Purpose and Description

The applicant is completing due diligence to determine the extent of critical areas and buffers on the property prior to developing a site plan for a future residential subdivision. The project is being undertaken to provide needed housing units for the growing area of La Center.

### 2.3 Existing Site Conditions

The mostly flat parcel is located on a terrace above the La Center Bottoms, a large wetland complex along the East Fork Lewis River south of the city. Residential subdivisions are located to the east. Breeze Creek is located just off-site to the north within a steep forested ravine along the south boundary of the La Center Middle School. One single-family residence is

located to the south. The parcel consists mainly of grassland pasture interspersed with areas of trees and woody shrubs.

## Chapter 3. Observed Critical Areas

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### 3.1 Wetlands

The presence of critical areas was assessed by traversing the property on foot. Observation of vegetation, hydrology, and soils in conjunction with data from National Wetland Inventory maps of the U.S. Fish and Wildlife Service (USFWS, 2022), the USDA NRCS Web Soil Survey (USDA, 2022), and aerial photos were used to determine the presence of wetlands or streams.

The presence or non-presence of wetlands were determined by using the Routine Determination Methodology of the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (USACE, 2010). Observed dominant vegetation in the wetlands and upland areas of the site is listed in Appendix C tables 1 and 2.

The NRCS Web Soil Survey indicates the following soil types on the property:

- Gee silt loam, 0 to 8 percent slopes (GeB)
- Gee silt loam, 30 to 60 percent slopes (GeF)
- Hillsboro silt loam, 3 to 8 percent slopes (HoB)
- Odne silt loam, 0 to 5 percent slopes (OdB)

The Gee series consists of deep, moderately well drained soils formed in old alluvium on dissected high terraces and terrace escarpments. Slopes are 0 to 60 percent.

The Hillsboro series consists of deep, well drained soils that formed in mixed alluvium. Hillsboro soils are on terraces and have slopes of 0 to 20 percent.

The Odne series consists of deep, poorly drained soils formed in alluvium in basins and drainageways on terraces. Slopes are 0 to 1 percent.

During a site visit conducted on June 17, 2022, CES determined that depressional wetlands (Wetland Unit 1) are present in the south part of the study area. Soils in the wetland generally match the description of the mapped Odne series.

Wetland Unit 1 is rated as Category IV depressional per the Washington State Wetland Rating System with a low habitat score of four (4) points (Figure 6 of 6). Water quality and hydrologic functions are also low.

The following description of the wetland type on the study area is per the Natural Resources Conservation Service (NRCS, 2008).

Depressional wetlands occur in topographic depressions. Dominant water sources are precipitation, ground water discharge, and both interflow and overland flow from adjacent uplands. The direction of flow is normally from the surrounding uplands toward the center of the depression. Elevation contours are closed, thus allowing the accumulation of surface water. Depressional wetlands may have any combination of inlets and outlets or lack them completely.

Dominant hydrodynamics are vertical fluctuations, primarily seasonal. Depressional wetlands may lose water through intermittent or perennial drainage from an outlet, by evapotranspiration and, if they are not receiving ground water discharge, may slowly contribute to ground water.

**Table 1. Wetlands within the Study Area.**

Wetland Unit	Wetland Classification				Estimated Wetland Size	Buffer Width (feet) <sup>D</sup>
	NWI <sup>A</sup>	HGM	Ecology <sup>B</sup>	City of La Center <sup>C</sup>		
1	PEM	Depressional	IV	I1	0.08 ac.	50


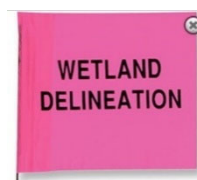
**Notes:**

- A. Cowardin et al. (1979) or National Wetland Inventory (NWI) Class based on vegetation: PEM – Palustrine emergent.
- B. Ecology rating according to Hruby (2014).
- C. Wetlands category according to the City of La Center Critical Areas Ordinance, Chapter 18.300 (City of La Center, 2022).
- D. Wetland buffer width according to the City of La Center Critical Areas Ordinance, Table 18.300.090(5)(i)(i)-1 (City of La Center, 2022).

### 3.2 Wetland Buffers

Per the LCCAO (Table 18.300.090(5)(i)(i)-1), Category IV wetlands are afforded a 50-foot buffer.

**Table 2. Wetland Information Summary (Wetland Unit 1)**

<b>Location:</b>	45.8594 N. lat. / -122.6625 W long.			
	<b>Local Jurisdiction</b>	City of La Center		
	<b>WRIA</b>	Lewis watershed – WRIA 27		
	<b>Ecology Wetland Rating</b>	IV		
	<b>Local Jurisdiction Rating</b>	IV		
	<b>Local Jurisdiction Buffer Width</b>	50-feet (per LCCAO Table 18.300.090(5)(i)(i)-1)		
	<b>Wetland Size</b>	0.08 acres		
	<b>Cowardin Classification</b>	PEM		
	<b>HGM Classification</b>	Depressional		
	<b>Pin flag or ribbon color: Pink “Wetland Delineation”</b>			
				
<b>Dominant Vegetation</b>	<i>Phalaris arundinacea, Ranunculus repens, Alopecurus pratense, Holcus lanatus, Agrostis stolonifera</i>			
<b>Soils</b>	Odne silt loam, 0 to 5 percent slopes (OdB)			
<b>Hydrology</b>	Oxidized Rhizospheres on Living Roots (C3), Geomorphic Position (D2)			

Wetland Rating Summary	
<b>Improving Water Quality</b>	Site Potential: L; Landscape Potential: M; Value: M; Total: 5 pts.
<b>Hydrologic</b>	Site Potential: L; Landscape Potential: L; Value: H; Total: 5 pts.
<b>Habitat</b>	Site Potential: L; Landscape Potential: M; Value: L; Total: 4 pts.
<b>Buffer Condition</b>	The buffer consists of woody shrubs and grassland pasture.

### Vegetation

The wetlands are dominated by grasses and other herbaceous vegetation. Reference Appendix B for a list of dominant wetland and upland plant species observed on the site.

### Hydrology

The soil conditions in Wetland Unit 1 were moist, however, no saturation was present. The primary hydrology indicator observed was oxidized rhizospheres on living roots. The secondary indicator is the geomorphic position of the wetlands in the landscape (a depression).

During the rainy season, the main source of hydrology to the wetlands is likely from overland surface runoff and a seasonal high groundwater table. No direct hydrology inputs were observed into the wetlands. Water from the wetlands appears to drain towards a heavily vegetated woody scrub shrub area to the south, however, most of the water likely stays in the wetlands and evaporates out over time.

During the week prior to the site visit, the area had received 0.28 inches of measurable precipitation according to the website Weather Underground.

### 3.3 Wetland Functions

Wetland functions were evaluated using the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Hruby, 2014).

The delineated wetlands provide low levels of water quality, hydrologic and habitat functions. (Table 3 and Appendix D).

**Table 3. Functions and Values of the Existing Wetlands.**

Function/Value <sup>a</sup>	Wetland Unit 1
<b>Water Quality Functions</b>	
Sediment Removal	+
Nutrient and Toxicant Removal	+
<b>Hydrologic Functions</b>	
Flood Flow Alteration	-
Erosion Control & Shoreline Stabilization	-

<b>Habitat Functions</b>	
Production & Export of Organic Matter	-
General Habitat Suitability	-
Habitat for Aquatic Invertebrates	-
Habitat for Amphibians	-
Habitat for Wetland-Associated Mammals	-
Habitat for Wetland-Associated Birds	-
General Fish Habitat	-
Native Plant Richness	-
<b>Special Characteristics</b>	
Educational or Scientific Value	-
Uniqueness and Heritage	-

<sup>a</sup>: “-” means that the function is not present; “X” means that the function is present is of lower quality; and “+” means the function is present an is of higher quality.

### 3.4 Habitat

The north portion of the study area is mapped with riparian habitat associated with Breeze Creek, a DNR Type F stream.

The Ordinary High Water Mark (OHWM) for the Type F stream was estimated based on field observations and 2-foot topographic contours from the Clark County MapsOnline website. The stream is located at the base of a steep forested ravine which is off-site to the north of the study area and south of the La Center Middle School.

Per Table 18.300.090(2)(f) of the LCCAO, Type F streams are afforded a riparian ecosystem area buffer of 200 feet. The riparian ecosystem buffer is generally an area of no building, consisting of undisturbed natural vegetation and extends landward from the OHWM of the stream.

## Chapter 4. Conclusion

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Based on observations taken during the field visit and review of the supporting documentation listed in this report, the study area contains habitat and wetlands that would be regulated under Chapter 18.300 of the LCCAO.

It is recommended that the OHWM of the stream be surveyed to obtain the accurate 200 foot riparian HCZ setback for project design purposes. This report documents the investigation, best professional judgment, and conclusions of CES. It should be used at your own risk unless it has been reviewed and approved in writing by the City of La Center under their jurisdictional standards.

## Chapter 5. References

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- City of La Center. (2022, June 17). *Critical Areas Ordinance (Chapter 18.300)*. Retrieved from <https://www.codepublishing.com/WA/LaCenter/#!/LaCenter18/LaCenter18300.html#18.300.090>
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- NRCS. (2008). *Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Service*. Washington, DC: United States Department of Agriculture Natural Resources Conservation Service.
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- WDNR. (2022, June 17). *Forest Practices Application Mapping Tool*. Retrieved from <https://fpamt.dnr.wa.gov/default.aspx>

## **Appendix A — Figures**

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**Figure 1 of 6 – Vicinity Map**

**Figure 2 of 6 – Site Topographic Contours**

**Figure 3 of 6 – Soil Map**

**Figure 4 of 6 – Local and National Wetland Inventory Map**

**Figure 5 of 6 – Priority Species and Habitat Mapping**

**Figure 6 of 6 – Identified Critical Areas**



## Appendix B — Site Photos

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Photo 1. Northeast portion of the study area facing west.



Photo 2. Northeast portion of the study area facing south.



## Appendix B – Site Photos (cont.)



Photo 3. Upland forested buffer north of Breeze Creek along the north part of the study area.



Photo 4. Southwest portion of the study area facing east.



## Appendix B – Site Photos (cont.)



Photo 5. Depressional wetland in the south part of the study area facing west.



Photo 6. Hillslope in the southeast corner of the property facing south.



## Appendix B – Site Photos (cont.)



Photo 7. Driveway crossing in the southeast corner of the property facing west.



Photo 8. South portion of the study area facing west.

## Appendix C — Dominant Plant Species on Study Area

Appendix C Table 1. Dominant upland plant species occurring on the study area.

Herb Stratum		
Scientific Name	Common Name	WIS*
<i>Festuca arundinacea</i>	Tall Fescue	FAC
<i>Anthoxanthum odoratum</i>	Sweet vernalgrass	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	FAC
<i>Cirsium arvense</i>	Canada thistle	FAC
<i>Prunella vulgaris</i>	Self heal	FACU
<i>Leucanthemum vulgare</i>	Oxeye daisy	FACU
<i>Taraxacum officinale</i>	Common dandelion	FACU
<i>Geranium molle</i>	Dovesfoot geranium	FACU
<i>Plantago lanceolata</i>	Lanceleaf plantain	FACU
Sapling/Shrub Stratum		
<i>Corylus cornuta</i>	Beaked hazelnut	FACU
<i>Oemlaria cerasiformis</i>	Indian plum	UPL
<i>Polystichum munitum</i>	Swordfern	FACU
<i>Symphoricarpos albus</i>	Common snowberry	FACU
<i>Mahonia aquifolium</i>	Oregon grape	FACU
<i>Acer circinatum</i>	Vine maple	FAC
Tree Stratum		
<i>Pseudotsuga menziesii</i>	Douglas fir	FACU
<i>Thuja plicata</i>	Western red cedar	FAC
<i>Sequoiadendron giganteum</i>	Giant sequoia	UPL
<i>Acer macrophyllum</i>	Big leaf maple	FACU
<i>Salix lasiandra</i>	Pacific willow	FAC
<i>Alnus rubra</i>	Red alder	FAC
Woody Vine Stratum		
<i>Rubus armeniacus</i>	Armenian blackberry	FAC
<i>Rubus ursinus</i>	Trailing blackberry	FACU

**Appendix C Table 2. Dominant wetland plant species occurring on the study area.**

Herb Stratum		
Scientific Name	Common Name	WIS*
<i>Phalaris arundinacea</i>	Reed canarygrass	FACW
<i>Alopecurus pratensis</i>	Meadow foxtail	FAC
<i>Ranunculus repens</i>	Creeping buttercup	FACW
<i>Holcus lanatus</i>	Common velvetgrass	FAC
<i>Agrostis stolonifera</i>	Creeping bentgrass	FAC

\* Wetland Indicator Status (WIS):

- OBL = almost always occur in wetlands
- FACW = usually occur in wetlands, but may occur in non-wetlands
- FAC = occur in wetlands and non-wetlands
- FACU = usually occur in non-wetlands, but may occur in wetlands
- UPL = almost always occur in non-wetlands

## Appendix D — Wetland Rating

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# Appendix E — Wetland Determination Data Sheets

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The proposal is to construct a residential subdivision on the 4.87 acre property which is zoned as Low Density Residential (LDR-7.5). The property is located within the jurisdiction of the City of La Center in the NE ¼ of Section 03, Township 4N, Range 1E of the Willamette Meridian.

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No other sensitive plant, fish, or wildlife species are currently known to occur within the confines of the study area. This report documents the investigation, best professional judgment, and conclusions of CES. It is recommended that the findings in this report be verified by the City of La Center prior to the commitment of significant planning and financial resources to the project.



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- Appendix B — Site Photos
- Appendix C — Dominant Plant Species on Study Area

# Acronyms and Abbreviations

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CES	Cascadia Ecological Services, Inc.
DNR	Department of Natural Resources
HCO	Habitat Conservation Ordinance
HCZ	Habitat Conservation Zone
LCCAO	La Center Critical Areas Ordinance
OHWM	Ordinary High Water Mark
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WPO	Wetland Protection Ordinance

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James S. Barnes

President

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# Chapter 1. Introduction

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### 2.1 Location

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# Chapter 3. Observed Critical Areas

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## 3.1 Wetlands

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Wetland Unit 1 is rated as Category IV depressional per the Washington State Wetland Rating System with a low habitat score of four (4) points (Figure 6 of 6). Water quality and hydrologic functions are also low.

The following description of the wetland type on the study area is per the Natural Resources Conservation Service (NRCS, 2008).

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to ground water.

**Table 1. Wetlands within the Study Area.**

Wetland Unit	Wetland Classification				Estimated Wetland Size	Buffer Width (feet) <sup>D</sup>
	NWI <sup>A</sup>	HGM	Ecology <sup>B</sup>	City of La Center <sup>C</sup>		
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Notes:

- A. Cowardin et al. (1979) or National Wetland Inventory (NWI) Class based on vegetation: PEM – Palustrine emergent.
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- C. Wetlands category according to the City of La Center Critical Areas Ordinance, Chapter 18.300 (City of La Center, 2022).
- D. Wetland buffer width according to the City of La Center Critical Areas Ordinance, Table 18.300.090(5)(i)(i)-1 (City of La Center, 2022).

### 5.3 Wetland Buffers

Per the LCCAO (Table 18.300.090(5)(i)(i)-1), Category IV wetlands are afforded a 50-foot buffer.

**Table 2. Wetland Information Summary (Wetland Unit 1)**

<b>Location:</b>	45.8594 N. lat. / -122.6625 W long.			
	<b>Local Jurisdiction</b>	City of La Center		
	<b>WRIA</b>	Lewis watershed – WRIA 27		
	<b>Ecology Wetland Rating</b>	IV		
	<b>Local Jurisdiction Rating</b>	IV		
	<b>Local Jurisdiction Buffer Width</b>	50-feet (per LCCAO Table 18.300.090(5)(i)(i)-1)		
	<b>Wetland Size</b>	0.08 acres		
	<b>Cowardin Classification</b>	PEM		
	<b>HGM Classification</b>	Depressional		
	<b>Pin flag or ribbon color: Pink “Wetland Delineation”</b>			
				
<b>Dominant Vegetation</b>	<i>Phalaris arundinacea, Ranunculus repens, Alopecurus pratense, Holcus lanatus, Agrostis stolonifera</i>			
<b>Soils</b>	Odne silt loam, 0 to 5 percent slopes (OdB)			
<b>Hydrology</b>	Oxidized Rhizospheres on Living Roots (C3), Geomorphic Position (D2)			
<b>Wetland Rating Summary</b>				
<b>Improving Water Quality</b>	Site Potential: L; Landscape Potential: M; Value: M; Total: 5 pts.			
<b>Hydrologic</b>	Site Potential: L; Landscape Potential: L; Value: H; Total: 5 pts.			
<b>Habitat</b>	Site Potential: L; Landscape Potential: M; Value: L; Total: 4 pts.			
<b>Buffer Condition</b>	The buffer consists of woody shrubs and grassland pasture.			

## Vegetation

The wetlands are dominated by grasses and other herbaceous vegetation. Reference Appendix B for a list of dominant wetland and upland plant species observed on the site.

## Hydrology

The soil conditions in Wetland Unit 1 were moist, however, no saturation was present. Primary hydrology indicators observed were oxidized rhizospheres on living roots. The secondary indicator is the geomorphic position of the wetlands in the landscape (a depression).

During the rainy season, the main source of hydrology to the wetlands is likely from overland surface runoff and a seasonal high groundwater table. No direct hydrology inputs were observed at the into the wetlands. Water from the wetlands appears to drain into a woody scrub shrub area to the south, however, most of the water likely stays in the wetlands and evaporates out over time.

During the week prior to the site visit, the area had received 0.28 inches of measurable precipitation according to the website Weather Underground.

## 5.4 Wetland Functions

Wetland functions were evaluated using the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Hruby, 2014).

The delineated wetlands provide moderate levels of water quality and hydrologic functions. Habitat functions are high (Table 4 and Appendix D).

**Table 4. Functions and Values of the Existing Wetlands.**

Function/Value <sup>a</sup>	Wetland Unit 1
<b>Water Quality Functions</b>	
Sediment Removal	+
Nutrient and Toxicant Removal	+
<b>Hydrologic Functions</b>	
Flood Flow Alteration	-
Erosion Control & Shoreline Stabilization	-
<b>Habitat Functions</b>	
Production & Export of Organic Matter	-
General Habitat Suitability	-
Habitat for Aquatic Invertebrates	-
Habitat for Amphibians	-
Habitat for Wetland-Associated Mammals	-

Habitat for Wetland-Associated Birds	-
General Fish Habitat	-
Native Plant Richness	-
<b>Special Characteristics</b>	
Educational or Scientific Value	-
Uniqueness and Heritage	-

<sup>a</sup>: “-” means that the function is not present; “X” means that the function is present is of lower quality; and “+” means the function is present an is of higher quality.

### 3.2 Habitat

The north portion of the study area is mapped with riparian habitat associated with Breeze Creek, a DNR Type F stream.

The Ordinary High Water Mark (OHWM) for the Type F stream was estimated based on field observations and 2-foot topographic contours from the Clark County MapsOnline website. The stream is located at the base of a steep forested ravine which is off-site to the north of the study area and south of the La Center Middle School.

Per Table 18.300.090(2)(f) of the LCCAO, Type F streams are afforded a riparian ecosystem area buffer of 200 feet. The riparian ecosystem buffer is generally an area of no building, consisting of undisturbed natural vegetation and extends landward from the OHWM of the stream.

## Chapter 4. Conclusion

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Based on observations taken during the field visit and review of the supporting documentation listed in this report, the study area contains habitat and wetlands that would be regulated under Chapter 18.300 of the LCCAO.

The critical areas identified in this report are based on limited sampling in the field. It is recommended that the OHWM of the stream be surveyed to obtain the accurate 200 foot riparian HCZ setback for project design purposes. This report documents the investigation, best professional judgment, and conclusions of CES. It should be used at your own risk unless it has been reviewed and approved in writing by the City of La Center under their jurisdictional standards.



## Chapter 5. References

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- City of La Center. (2022, June 17). *Critical Areas Ordinance (Chapter 18.300)*. Retrieved from <https://www.codepublishing.com/WA/LaCenter/#!/LaCenter18/LaCenter18300.html#18.300.090>
- Clark County. (2022, June 17). *Maps Online*. Retrieved from Maps Online: <https://gis.clark.wa.gov/mapsonline/index.cfm>
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- NRCS. (2008). *Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Service*. Washington, DC: United States Department of Agriculture Natural Resources Conservation Service.
- USACE. (2010). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. Vicksburg, MS: U.S. Army Corps of Engineers Engineer Research and Development Center.
- USDA. (2022, June 17). *Web Site for Official Soil Series Descriptions and Series Classification*. Retrieved from <https://soilseries.sc.egov.usda.gov/>
- USFWS. (2022, June 17). *National Wetlands Inventory*. Retrieved from U.S. Fish and Wildlife Service National Wetlands Inventory: <https://www.fws.gov/wetlands/data/mapper.html>
- WDFW. (2022, June 17). *PHS on the Web*. Retrieved from PHS on the Web: <http://apps.wdfw.wa.gov/phsontheweb/>
- WDNR. (2022, June 17). *Forest Practices Application Mapping Tool*. Retrieved from <https://fpamt.dnr.wa.gov/default.aspx>

## **Appendix A — Figures**

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**Figure 1 of 6 – Vicinity Map**

**Figure 2 of 6 – Site Topographic Contours**

**Figure 3 of 6 – Soil Map**

**Figure 4 of 6 – Local and National Wetland Inventory Map**

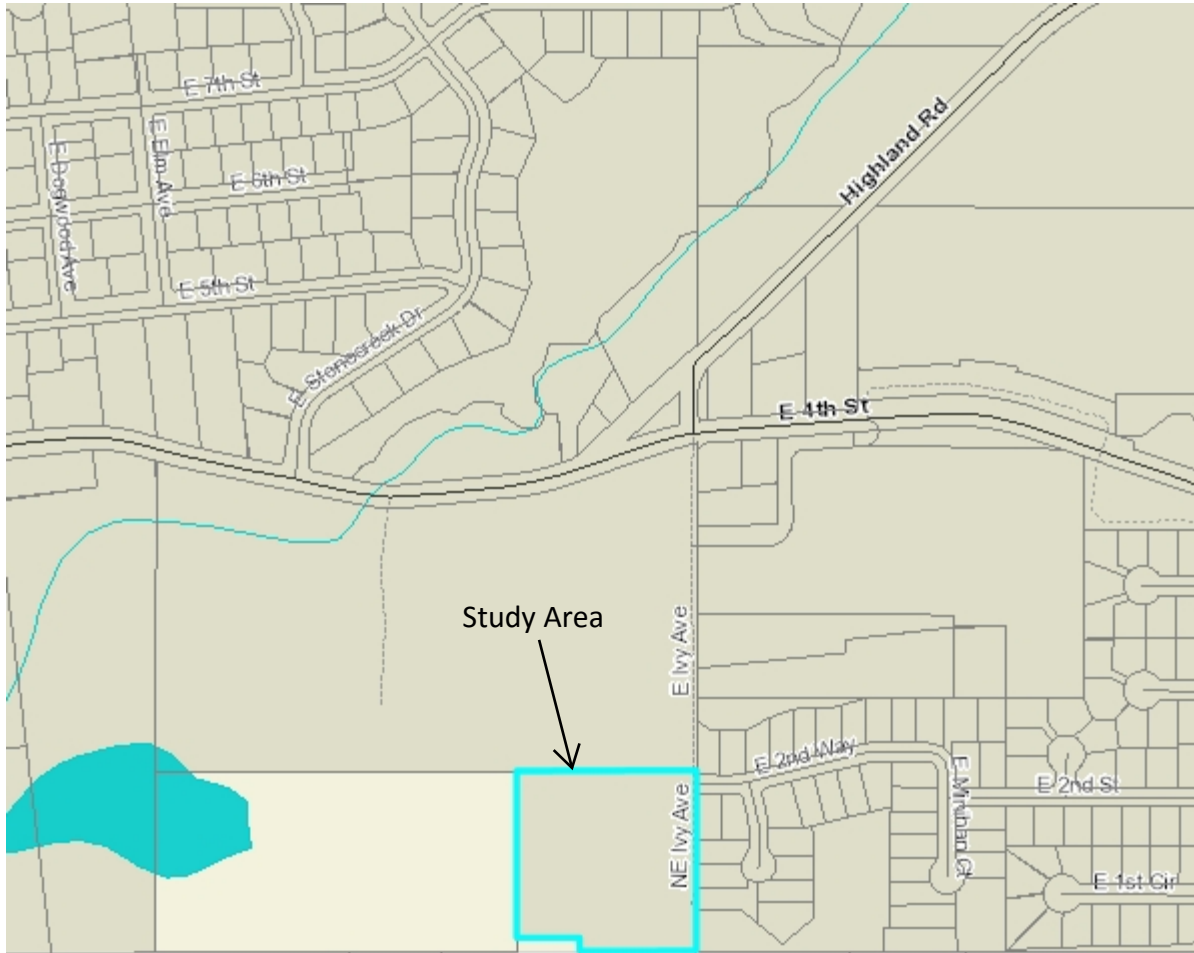
**Figure 5 of 6 – Priority Species and Habitat Map**

**Figure 6 of 6 – Identified Critical Areas**



Figure 1 of 6. Vicinity Map  
 Critical Areas Report  
 Breeze Creek Trails, LLC Property

Date: 6/21/22



Legend

- Taxlots
- Cities Boundaries
- Urban Growth Boundaries

Location:  
 NE Ivy Avenue & E 2nd Way  
 La Center, WA 98629

Property Owner:  
 Breeze Creek Trails, LLC  
 P.O. Box 928  
 Battle Ground, WA 98604

Applicant:  
 Holly Schlentz  
 C/O: Boss Products, LLC.  
 6729 Guada Coma Dr. #100  
 Schertz, TX 78154  
 holly@bossproductsamerica.com

Tax Parcel: 986044822

Latitude = 45.85971  
 Longitude = -122.66270

STR NE 1/4, S03, T4N, R1E  
 of the Willamette Meridian

Notes:

1: 6,000

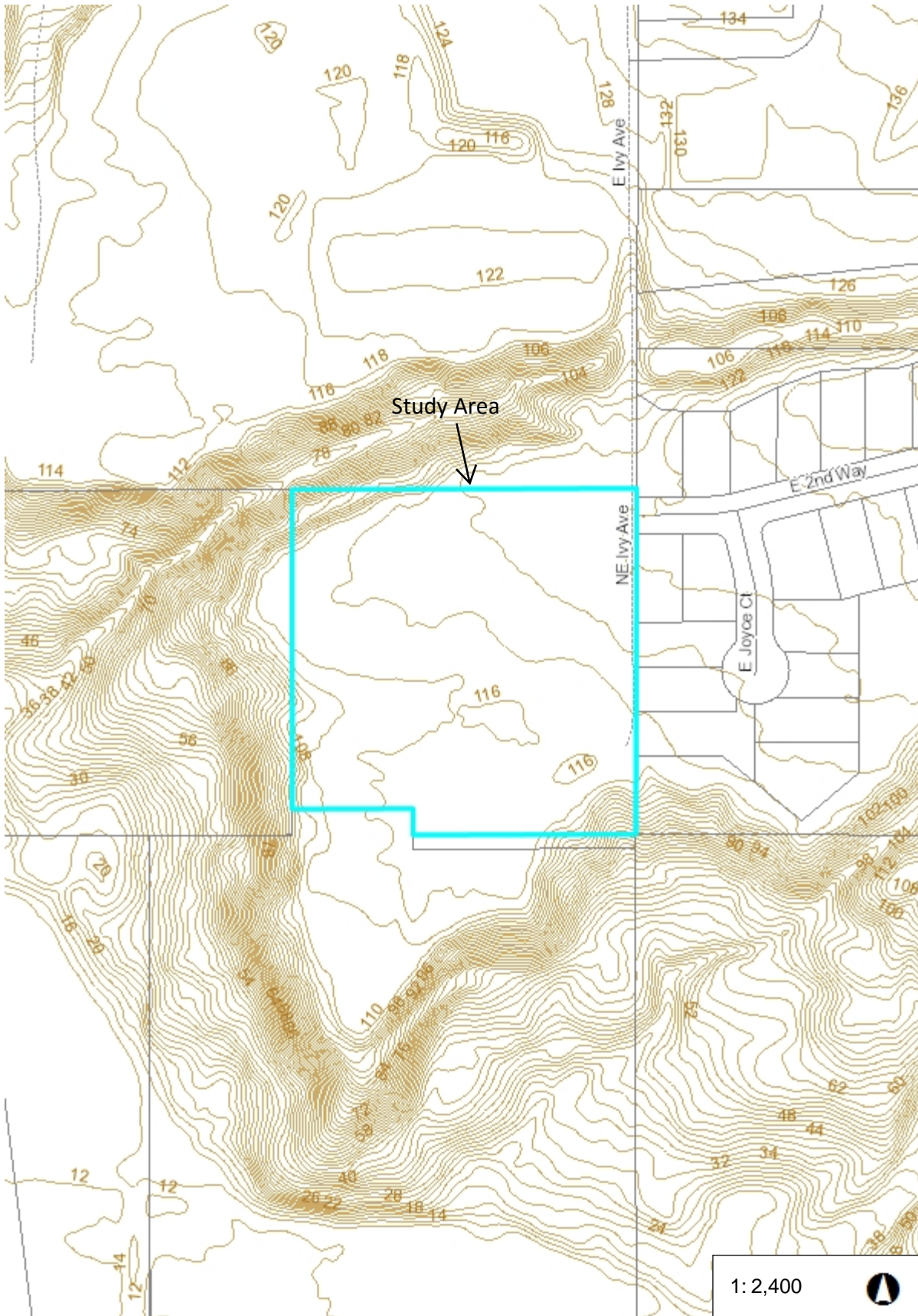


1,000.0 0 500.00 1,000.0Feet



Figure 2 of 6. Site Topographic Contours  
 Critical Areas Report  
 Breeze Creeks Trails, LLC Property

Date: 6/21/22



Legend

- Taxlots
- Contours Lines - 2 ft
- All Roads**
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other

Location:  
 NE Ivy Avenue @ E 2nd Way  
 La Center, WA 98629

Property Owner:  
 Breeze Creeks Trails, LLC  
 P.O. Box 928  
 Battle Ground, WA 98604

Applicant  
 Holly Scilenti  
 CEO Boss Products, LLC.  
 6729 Guadalupe Dr. #100  
 Scituate, WA 98154  
 Holly@bossproductsamerica.com

Tax Parcel: 986044822

Latitude = 45.85971  
 Longitude = -122.66270

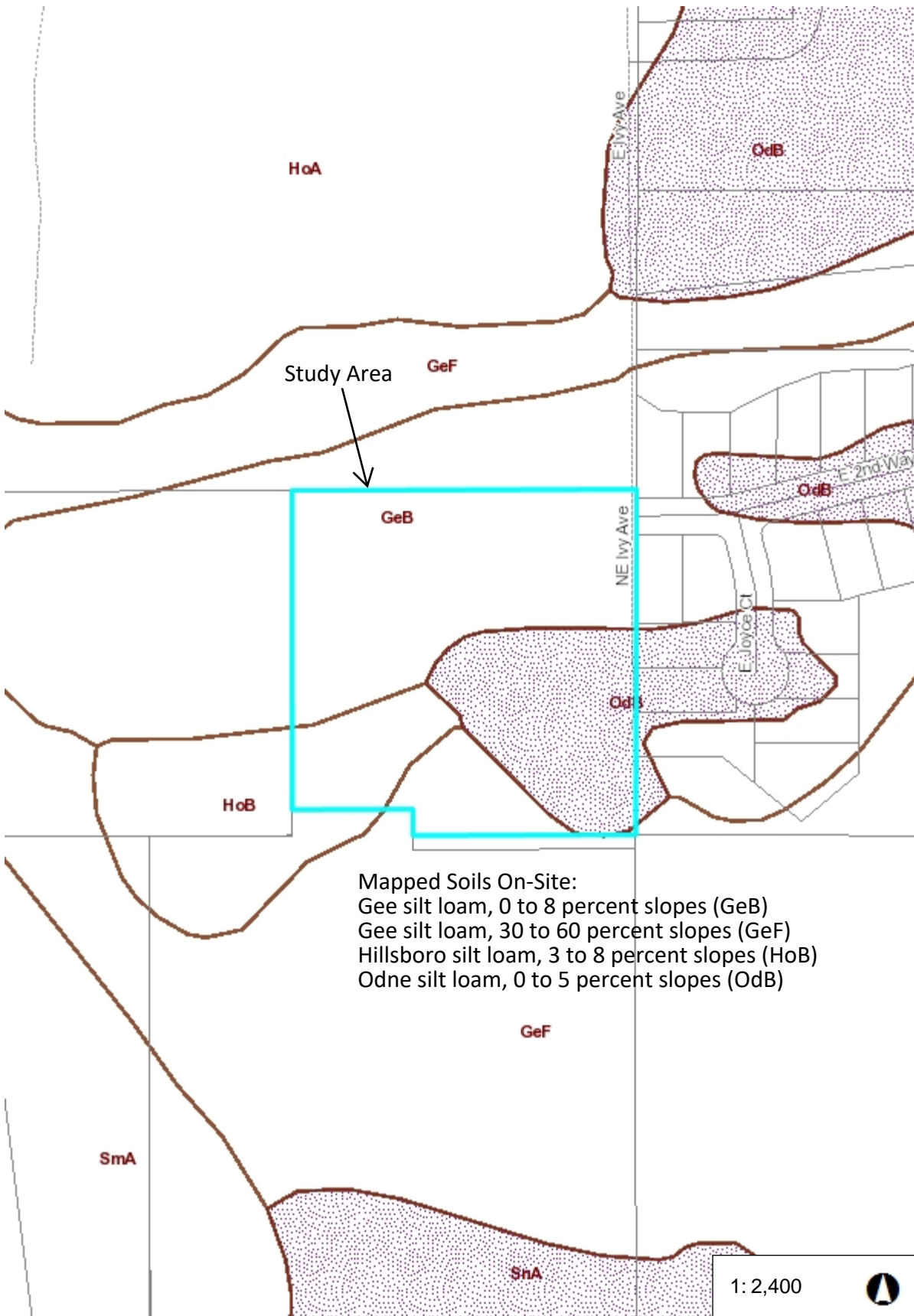
STR NE 1/4, S03, T4N, R1E  
 of the Willamette Meridian

Notes:

1:2,400



400.0 0 200.00 400.0Feet



**Legend**

- Taxlots
- Soil Type
- Hydric Soils
- All Roads**
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other

**Location:**  
 NE Ivy Avenue & E 2nd Way  
 La Center, WA 98629

**Property Owner:**  
 Breeze Creeks Trails, LLC  
 P.O. Box 928  
 Battle Ground, WA 98604

**Applicant:**  
 Molly Scientist  
 C/O Boss Products, LLC.  
 6729 Guada Coma Dr. #100  
 Scitert, TN 37154  
 Molly@bossproductsamerica.com

**Tax Parcel:** 986044822

**Latitude =** 45.85971  
**Longitude =** -122.66270

**STR** NE 1/4, S03, T4N, R1E  
 of the Willamette Meridian

**Mapped Soils On-Site:**  
 Gee silt loam, 0 to 8 percent slopes (GeB)  
 Gee silt loam, 30 to 60 percent slopes (GeF)  
 Hillsboro silt loam, 3 to 8 percent slopes (HoB)  
 Odne silt loam, 0 to 5 percent slopes (OdB)

**Notes:**

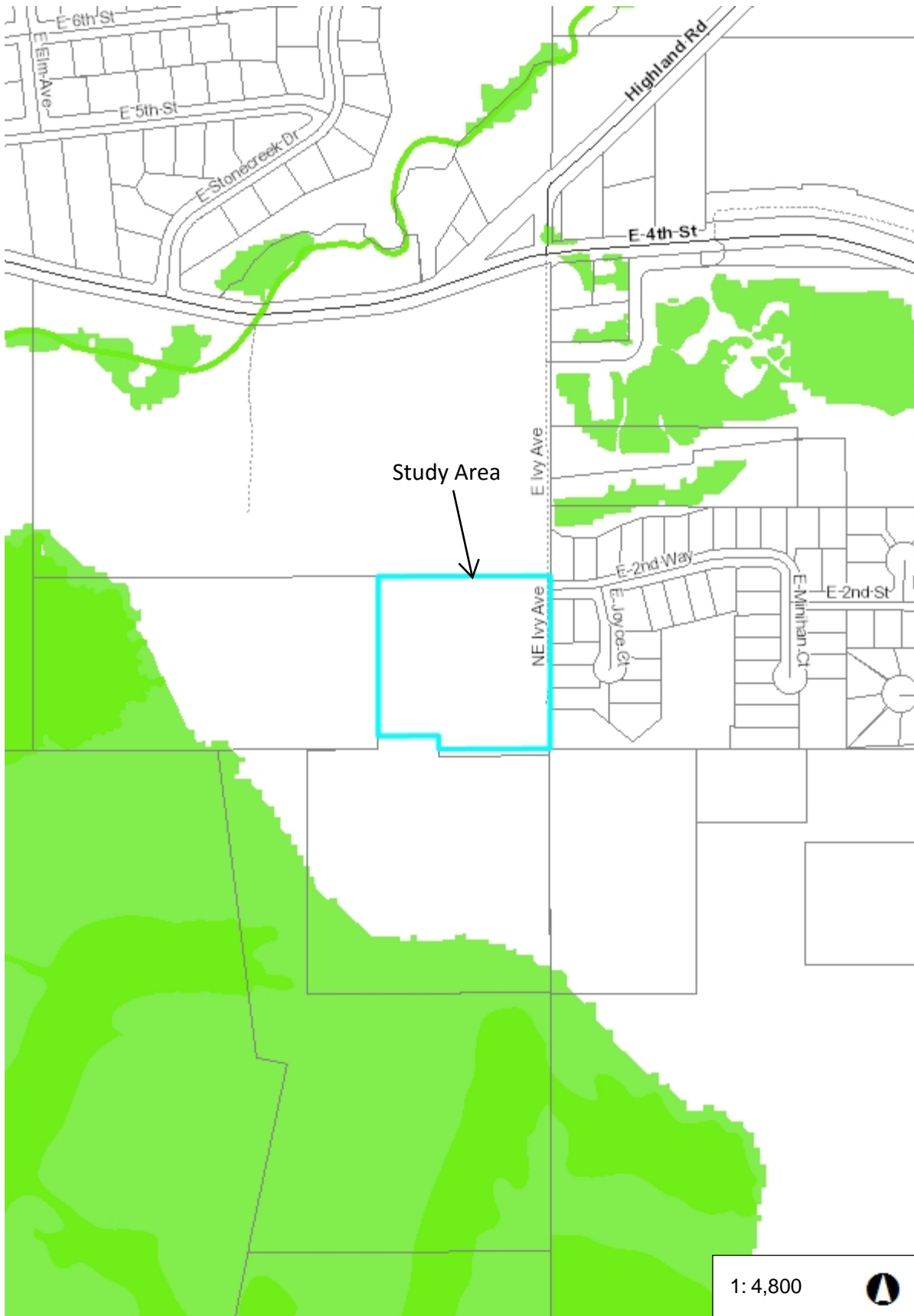
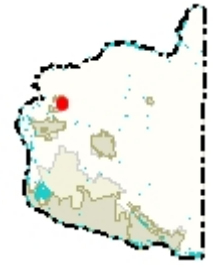
400.0 0 200.00 400.0Feet





Figure 4 of 6. Local and National Wetland Inventory Map  
 Critical Areas Report  
 Breeze Creeks Trails, LLC Property

Date: 6/21/22



Legend

- Taxlots
- Potential Wetlands Presence
- NWI Wetland
- All Roads
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other

Location:  
 NE Ivy Avenue & E 2nd Way  
 La Center, WA 98629

Property Owner:  
 Breeze Creeks Trails, LLC  
 P.O. Box 928  
 Battle Ground, WA 98604

Applicant:  
 Holly Schellert  
 CEO Boss Products, LLC.  
 6729 Guadalupe Tr. #100  
 Scottsdale, AZ 85254  
 holly@bossproductsamerica.com

Tax Parcel: 986044822

Latitude = 45.85971  
 Longitude = -122.66270

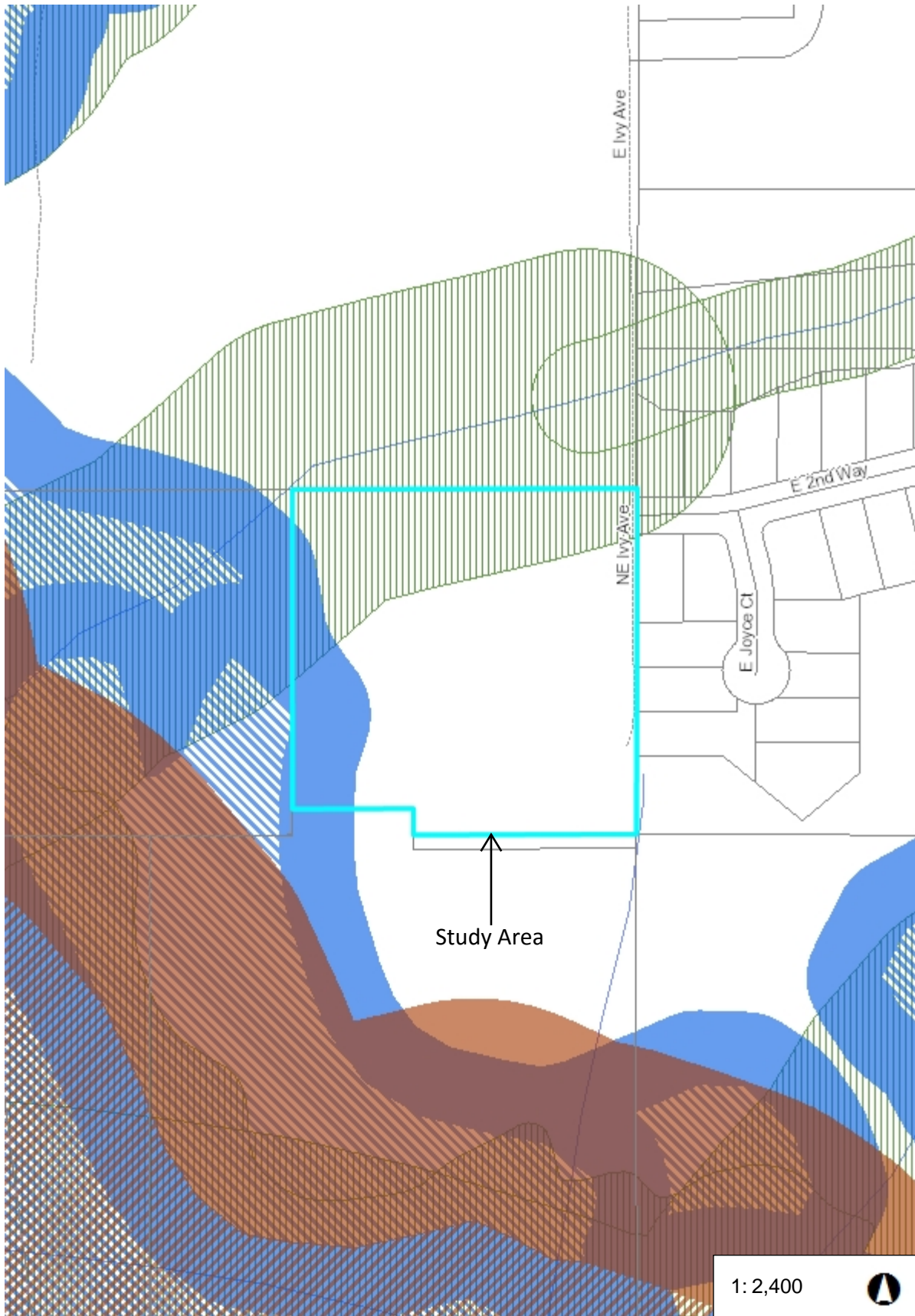
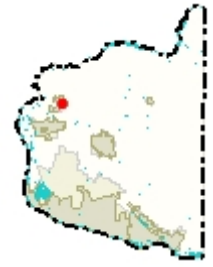
STR NE 1/4, S03, T4N, R1E  
 of the Willamette Meridian

Notes:

1: 4,800



800.0 0 400.00 800.0Feet



**Legend**

- Taxlots
- Species**
  - Species Area
  - Adjacent to Species Area
- Habitat**
  - Habitat Area
  - Adjacent to Habitat Area
- Riparian Habitat
- Stream - DNR
- Lake - DNR
- All Roads**
  - Interstate
  - State Route
  - Arterial
  - Forest Arterial
  - Minor Collector
  - Forest Collector
  - Private or Other

Location:  
 NE Ivy Avenue & E 2nd Way  
 La Center, WA 98629

Property Owner:  
 Breeze Creeks Trails, LLC  
 P.O. Box 928  
 Battle Ground, WA 98604

Applicant:  
 Molly Sculent  
 C/O Boss Products, LLC.  
 6729 Guadalupe Dr. #100  
 Scottsdale, AZ 85254  
 Molly@bossproductsamerica.com

Tax Parcel: 986044822

Latitude = 45.85971  
 Longitude = -122.66270

STR NE 1/4, S03, T4N, R1E  
 of the Willamette Meridian

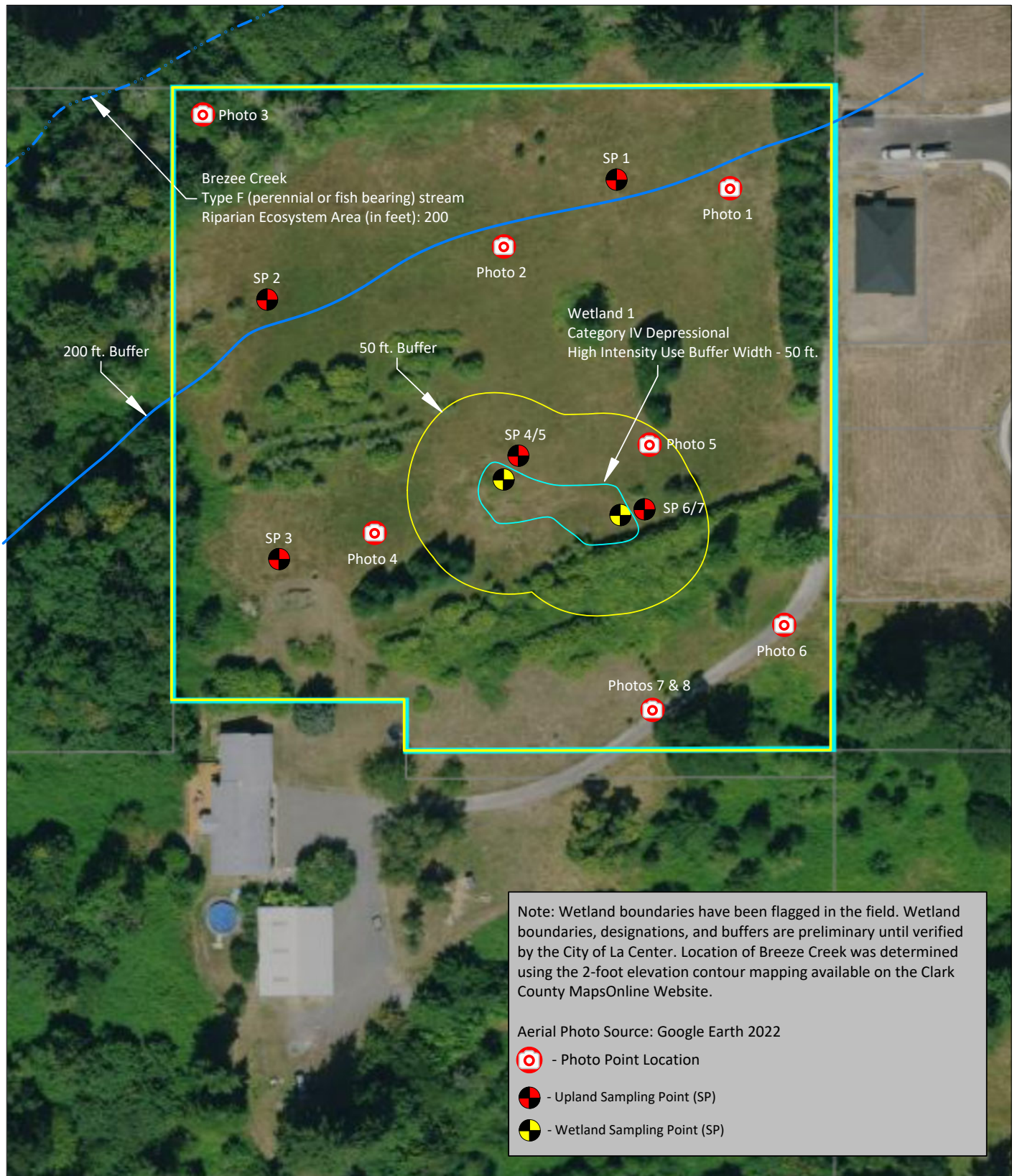
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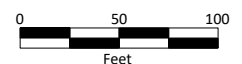
**Figure 6 of 6 - Identified Critical Areas  
Critical Areas Report**

Project: Breezee Creek Trails, LLC Property  
Tax Parcel: 986044822  
Location: NE Ivy Avenue & E 2nd Way, La Center, WA 98629  
Legal: NE 1/4, S03, T4N, R1E of the Willamette Meridian  
45.85971 N. lat. / -122.66270 W long.  
County: Clark

Cascadia Ecological Services, Inc.  
14205 NW 56th Avenue, Vancouver, WA 98685  
(360) 601-8631  
www.cascadia-inc.com

6/21/22

Client:  
Holly Schlentz  
C/O: Boss Products, LLC.  
6729 Guada Coma Dr. #100  
Schertz, TX 78154  
holly@bossproductsamerica.com





## Appendix B — Site Photos

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Photo 1. Northeast portion of the study area facing west.



Photo 2. Northeast portion of the study area facing south.



## Appendix B – Site Photos (cont.)



Photo 3. Upland forested buffer north of Breeze Creek along the north part of the study area.



Photo 4. Southwest portion of the study area facing east.



## Appendix B – Site Photos (cont.)



Photo 5. Depressional wetland in the south part of the study area facing west.



Photo 6. Hillslope in the southeast corner of the property facing south.



## Appendix B – Site Photos (cont.)



Photo 7. Driveway crossing in the southeast corner of the property facing west.



Photo 8. South portion of the study area facing west.

## Appendix C — Dominant Plant Species on Study Area

Appendix C Table 1. Dominant upland plant species occurring on the study area.

Herb Stratum		
Scientific Name	Common Name	WIS*
<i>Festuca arundinacea</i>	Tall Fescue	FAC
<i>Anthoxanthum odoratum</i>	Sweet vernalgrass	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	FAC
<i>Cirsium arvense</i>	Canada thistle	FAC
<i>Prunella vulgaris</i>	Self heal	FACU
<i>Leucanthemum vulgare</i>	Oxeye daisy	FACU
<i>Taraxacum officinale</i>	Common dandelion	FACU
<i>Geranium molle</i>	Dovesfoot geranium	FACU
<i>Plantago lanceolata</i>	Lanceleaf plantain	FACU
Sapling/Shrub Stratum		
<i>Corylus cornuta</i>	Beaked hazelnut	FACU
<i>Oemlaria cerasiformis</i>	Indian plum	UPL
<i>Polystichum munitum</i>	Swordfern	FACU
<i>Symphoricarpos albus</i>	Common snowberry	FACU
<i>Mahonia aquifolium</i>	Oregon grape	FACU
<i>Acer circinatum</i>	Vine maple	FAC
Tree Stratum		
<i>Pseudotsuga menziesii</i>	Douglas fir	FACU
<i>Thuja plicata</i>	Western red cedar	FAC
<i>Sequoiadendron giganteum</i>	Giant sequoia	UPL
<i>Acer macrophyllum</i>	Big leaf maple	FACU
<i>Salix lasiandra</i>	Pacific willow	FAC
<i>Alnus rubra</i>	Red alder	FAC
Woody Vine Stratum		
<i>Rubus armeniacus</i>	Armenian blackberry	FAC
<i>Rubus ursinus</i>	Trailing blackberry	FACU

**Appendix C Table 2. Dominant wetland plant species occurring on the study area.**

Herb Stratum		
Scientific Name	Common Name	WIS*
<i>Phalaris arundinacea</i>	Reed canarygrass	FACW
<i>Alopecurus pratensis</i>	Meadow foxtail	FAC
<i>Ranunculus repens</i>	Creeping buttercup	FACW
<i>Holcus lanatus</i>	Common velvetgrass	FAC
<i>Agrostis stolonifera</i>	Creeping bentgrass	FAC

\* Wetland Indicator Status (WIS):

- OBL = almost always occur in wetlands
- FACW = usually occur in wetlands, but may occur in non-wetlands
- FAC = occur in wetlands and non-wetlands
- FACU = usually occur in non-wetlands, but may occur in wetlands
- UPL = almost always occur in non-wetlands

# Appendix E — Wetland Rating

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Wetland name or number 1

Project: Breeze Creek Trails, LLC Property  
NE Ivy Avenue & E 2nd Way, La Center, WA 98629

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland 1 Date of site visit: 6/20/22

Rated by Jim Barnes (Cascadia) Trained by Ecology?  Yes \_\_\_ No Date of training 11/12/13

HGM Class used for rating Depressional Wetland has multiple HGM classes?  Y \_\_\_ N

**NOTE: Form is not complete without the figures requested (figures can be combined).**

Source of base aerial photo/map Google Earth

**OVERALL WETLAND CATEGORY IV** (based on functions  or special characteristics \_\_\_)

### 1. Category of wetland based on FUNCTIONS

\_\_\_ Category I – Total score = 23 - 27

\_\_\_ Category II – Total score = 20 - 22

\_\_\_ Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
<i>Circle the appropriate ratings</i>										
Site Potential	H	M	<u>L</u>	H	M	<u>L</u>	H	M	<u>L</u>	
Landscape Potential	H	<u>M</u>	L	H	M	<u>L</u>	H	<u>M</u>	L	
Value	H	<u>M</u>	L	<u>H</u>	M	L	H	M	<u>L</u>	<b>TOTAL</b>
Score Based on Ratings	<b>5</b>		<b>5</b>		<b>4</b>		<b>14</b>			

**Score for each function based on three ratings (order of ratings is not important)**

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,L

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	Not applicable



Wetland name or number 1

## Maps and figures required to answer questions correctly for Western Washington

### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	1
Hydroperiods	D 1.4, H 1.2	1
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	2
Map of the contributing basin	D 4.3, D 5.3	3
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	5

### Riverine Wetlands

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

### Lake Fringe Wetlands

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

### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

**NO** – go to 2

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

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

**NO – Saltwater Tidal Fringe (Estuarine)**

**YES – Freshwater Tidal Fringe**

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

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

**NO** – go to 3

**YES** – The wetland class is **Flats**

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

3. Does the entire wetland unit **meet all** of the following criteria?

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

At least 30% of the open water area is deeper than 6.6 ft (2 m).

**NO** – go to 4

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

4. Does the entire wetland unit **meet all** of the following criteria?

The wetland is on a slope (*slope can be very gradual*),

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

**NO** – go to 5

**YES** – The wetland class is **Slope**

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

5. Does the entire wetland unit **meet all** of the following criteria?

The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

The overbank flooding occurs at least once every 2 years.

Wetland name or number 1

**NO** → go to 6

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

**YES** – The wetland class is **Riverine**

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

NO – go to 7

**YES** – The wetland class is **Depressional**

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

NO – go to 8

**YES** – The wetland class is **Depressional**

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

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

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

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

Wetland name or number 1

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Water Quality Functions - Indicators that the site functions to improve water quality</b>		
<b>D 1.0. Does the site have the potential to improve water quality?</b>		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 3 points = 2 points = 1 points = 1	2
D 1.2. The soil <u>2</u> in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0		0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > 1/2 of area Wetland has persistent, ungrazed plants > 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	points = 5 points = 3 points = 1 points = 0  <i>Wetland is in field which is mowed during the summer.</i>	0
D 1.4. Characteristics of seasonal ponding or inundation: <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > 1/2 total area of wetland Area seasonally ponded is > 1/4 total area of wetland Area seasonally ponded is < 1/4 total area of wetland	points = 4 points = 2 points = 0	0
Total for D 1 Add the points in the boxes above		2

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

<b>D 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source _____	Yes = 1 No = 0	0
Total for D 2 Add the points in the boxes above		1

**Rating of Landscape Potential** If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the first page

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

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

Wetland name or number 1

**DEPRESSIONAL AND FLATS WETLANDS**

**Hydrologic Functions** - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	2
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.		
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	0
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.		
The area of the basin is less than 10 times the area of the unit	points = 5	3
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	2

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

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	0
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	0
Total for D 5	Add the points in the boxes above	0

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

D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.		
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		2
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for D 6	Add the points in the boxes above	2

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

Wetland name or number 1

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- Aquatic bed 4 structures or more: points = 4
  - Emergent 3 structures: points = 2
  - Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1
  - Forested (areas where trees have > 30% cover) 1 structure: points = 0
- If the unit has a Forested class, check if:*
- The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- Permanently flooded or inundated 4 or more types present: points = 3
- Seasonally flooded or inundated 3 types present: points = 2
- Occasionally flooded or inundated 2 types present: points = 1
- Saturated only 1 type present: points = 0
- Permanently flowing stream or river in, or adjacent to, the wetland
- Seasonally flowing stream in, or adjacent to, the wetland
- Lake Fringe wetland** **2 points**
- Freshwater tidal wetland** **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>.

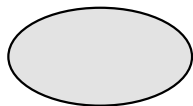
*Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*

- If you counted: > 19 species points = 2
- 5 - 19 species points = 1
- < 5 species points = 0

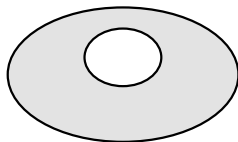
1

H 1.4. Interspersion of habitats

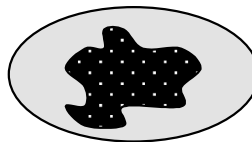
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



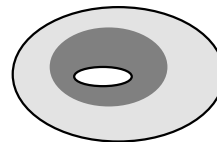
None = 0 points



Low = 1 point

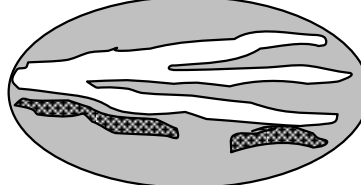
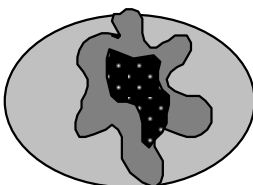
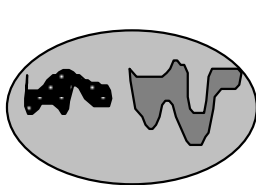


Moderate = 2 points



0

All three diagrams in this row are **HIGH** = 3points





Wetland name or number 1

<p>H 1.5. Special habitat features:          Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i>  <input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in diameter and 6 ft long).  <input type="checkbox"/> Standing snags (dbh &gt; 4 in) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>)  <input checked="" type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)  <input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>	0
<p>Total for H 1</p>	2

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

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
<p>H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>).  <i>Calculate:</i> % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>&lt;1</u> = <u>&lt;1</u> %          If total accessible habitat is:          &gt; 1/3 (33.3%) of 1 km Polygon points = 3          20-33% of 1 km Polygon points = 2          10-19% of 1 km Polygon points = 1          &lt; 10% of 1 km Polygon points = 0</p>	0
<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.  <i>Calculate:</i> % undisturbed habitat <u>41</u> + [(% moderate and low intensity land uses)/2] <u>23</u> = <u>64</u> %          Undisturbed habitat &gt; 50% of Polygon points = 3          Undisturbed habitat 10-50% and in 1-3 patches points = 2          Undisturbed habitat 10-50% and &gt; 3 patches points = 1          Undisturbed habitat &lt; 10% of 1 km Polygon points = 0</p>	3
<p>H 2.3. Land use intensity in 1 km Polygon: If          &gt; 50% of 1 km Polygon is high intensity land use points = (- 2)          ≤ 50% of 1 km Polygon is high intensity points = 0</p>	0
<p>Total for H 2</p>	3

**Rating of Landscape Potential** If score is: 4-6 = H X 1-3 = M < 1 = L *Record the rating on the first page*

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

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

## WDFW Priority Habitats

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

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

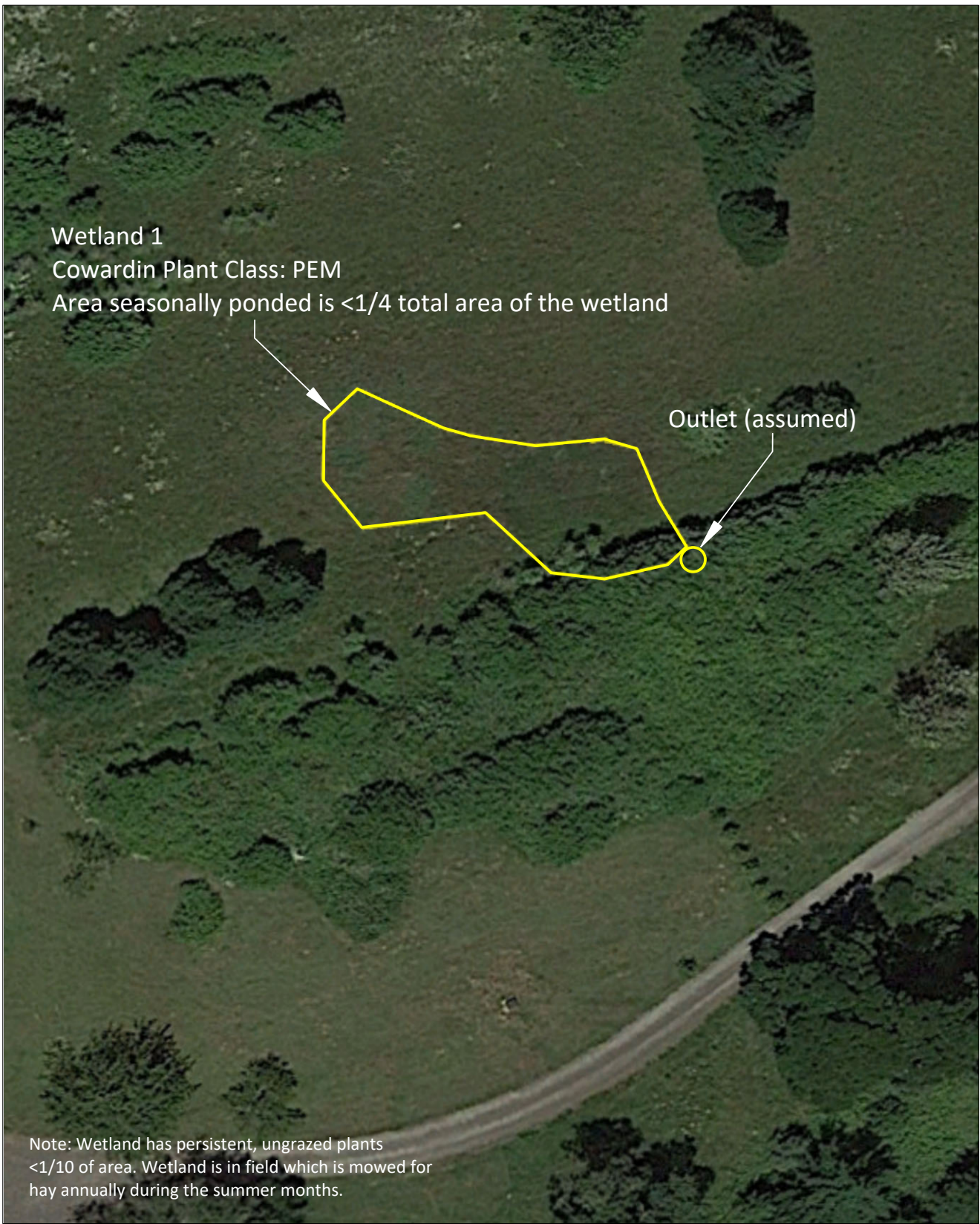
- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of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

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



**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

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

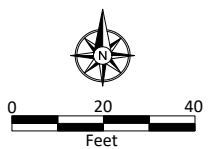


**Figure 1**  
**Wetland Rating Summary (Wetland Unit 1)**  
**Cowardin Plant Classes**

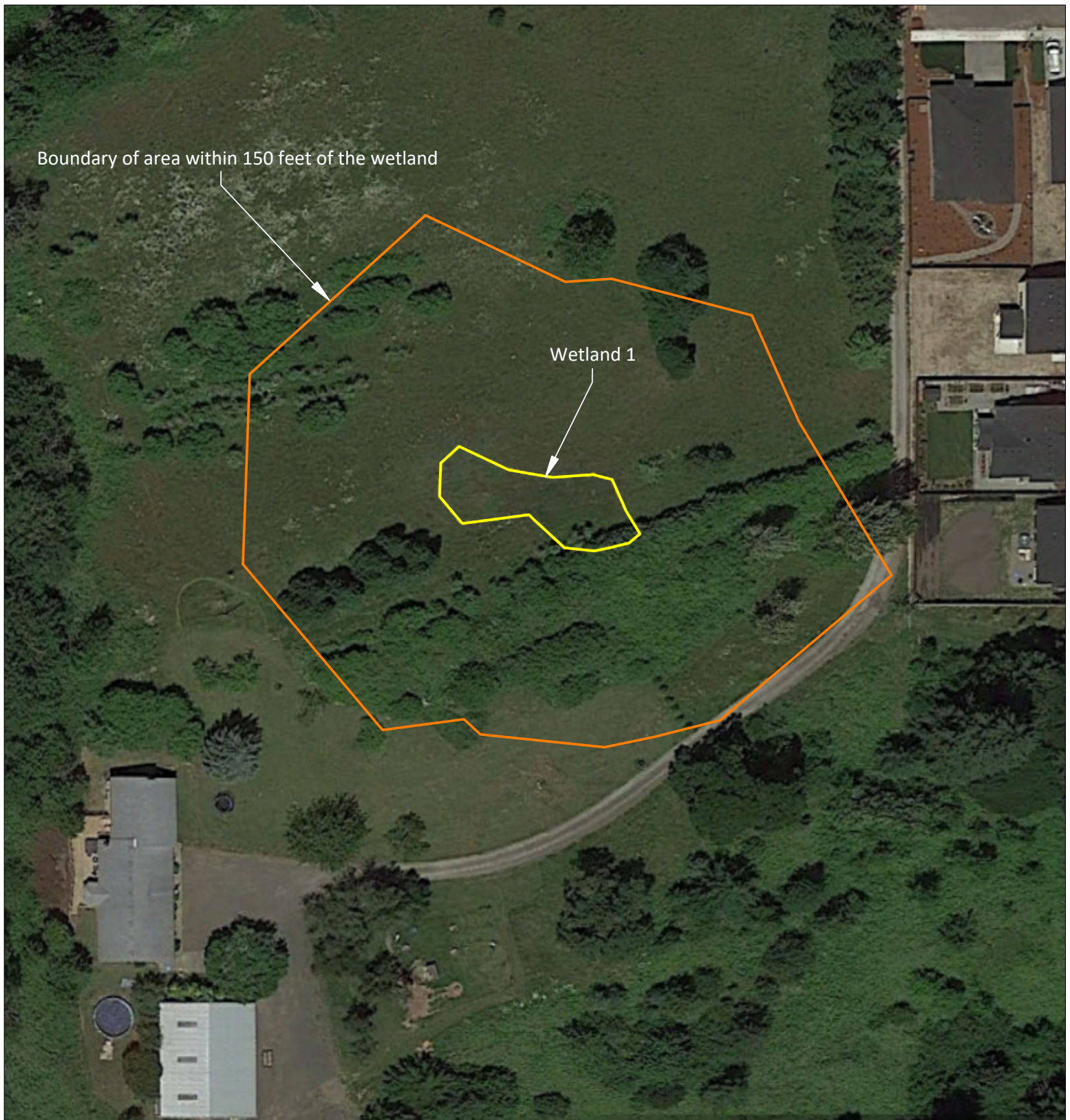
Project: Breeze Creek Trails, LLC Property  
 Tax Parcel: 986044822  
 Location: NE Ivy Avenue & E 2nd Way, La Center, WA 98629  
 Legal: NE 1/4, S03, T4N, R1E of the Willamette Meridian  
 45.85971 N. lat. / -122.66270 W long.  
 County: Clark

Client:  
 Holly Schlentz  
 C/O: Boss Products, LLC.  
 6729 Guada Coma Dr. #100  
 Schertz, TX 78154  
 holly@bossproductsamerica.com

Cascadia Ecological Services, Inc.  
 14205 NW 56th Avenue, Vancouver, WA 98685  
 (360) 601-8631  
 www.cascadia-inc.com







Boundary of area within 150 feet of the wetland

Wetland 1

**Figure 2**  
**Wetland Rating Summary (Wetland Unit 1)**  
**Boundary of 150-ft Buffer**

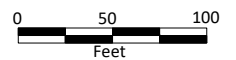
Project: Breeze Creek Trails, LLC Property  
 Tax Parcel: 986044822  
 Location: NE Ivy Avenue & E 2nd Way, La Center, WA 98629  
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 6729 Guada Coma Dr. #100  
 Schertz, TX 78154  
 holly@bossproductsamerica.com

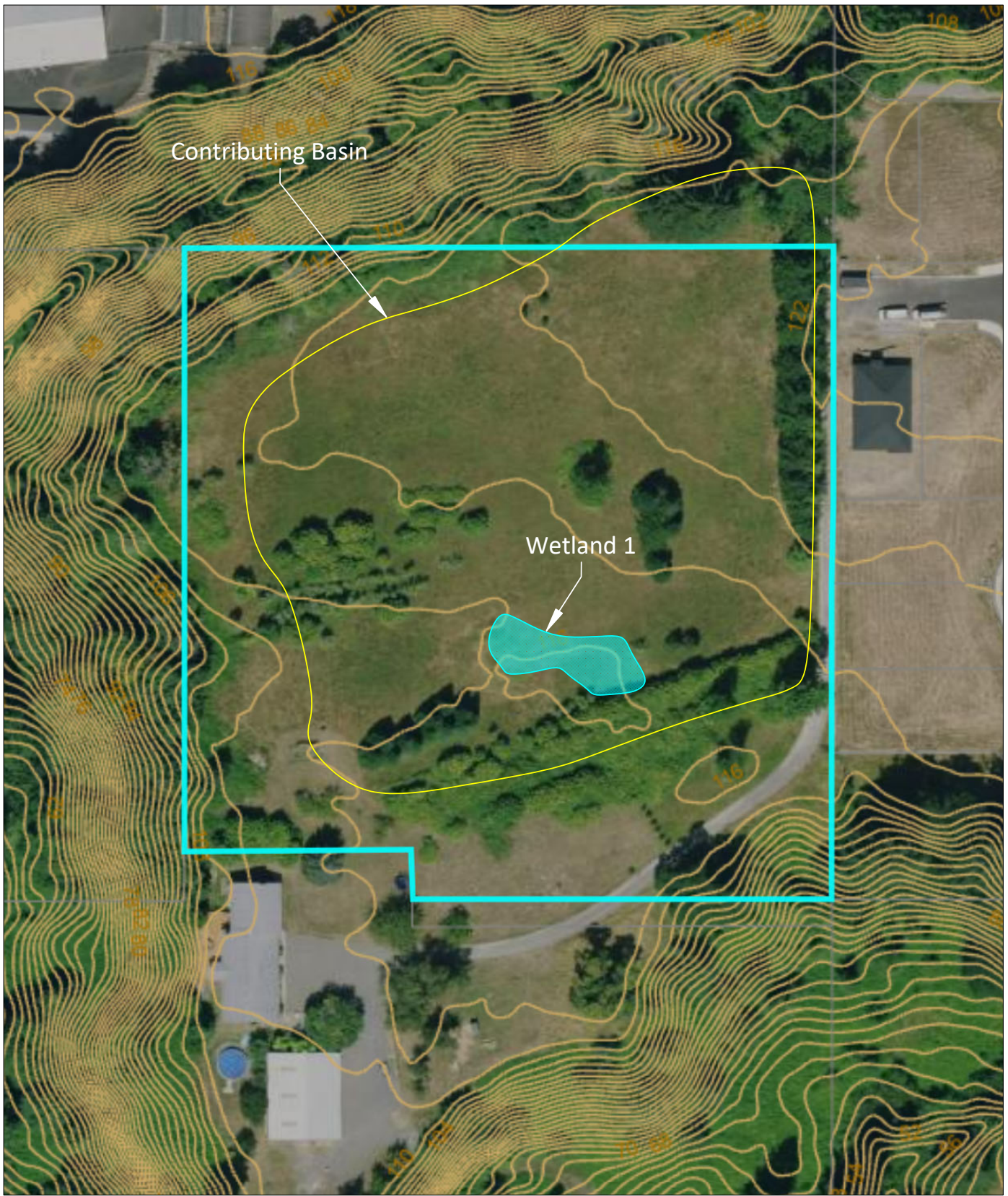


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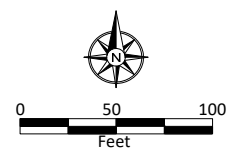


**Figure 3**  
**Wetland Rating Summary (Wetland Unit 1)**  
**Contributing Basin**

Project: Breeze Creek Trails, LLC Property  
 Tax Parcel: 986044822  
 Location: NE Ivy Avenue & E 2nd Way, La Center, WA 98629  
 Legal: NE 1/4, S03, T4N, R1E of the Willamette Meridian  
 45.85971 N. lat. / -122.66270 W long.  
 County: Clark

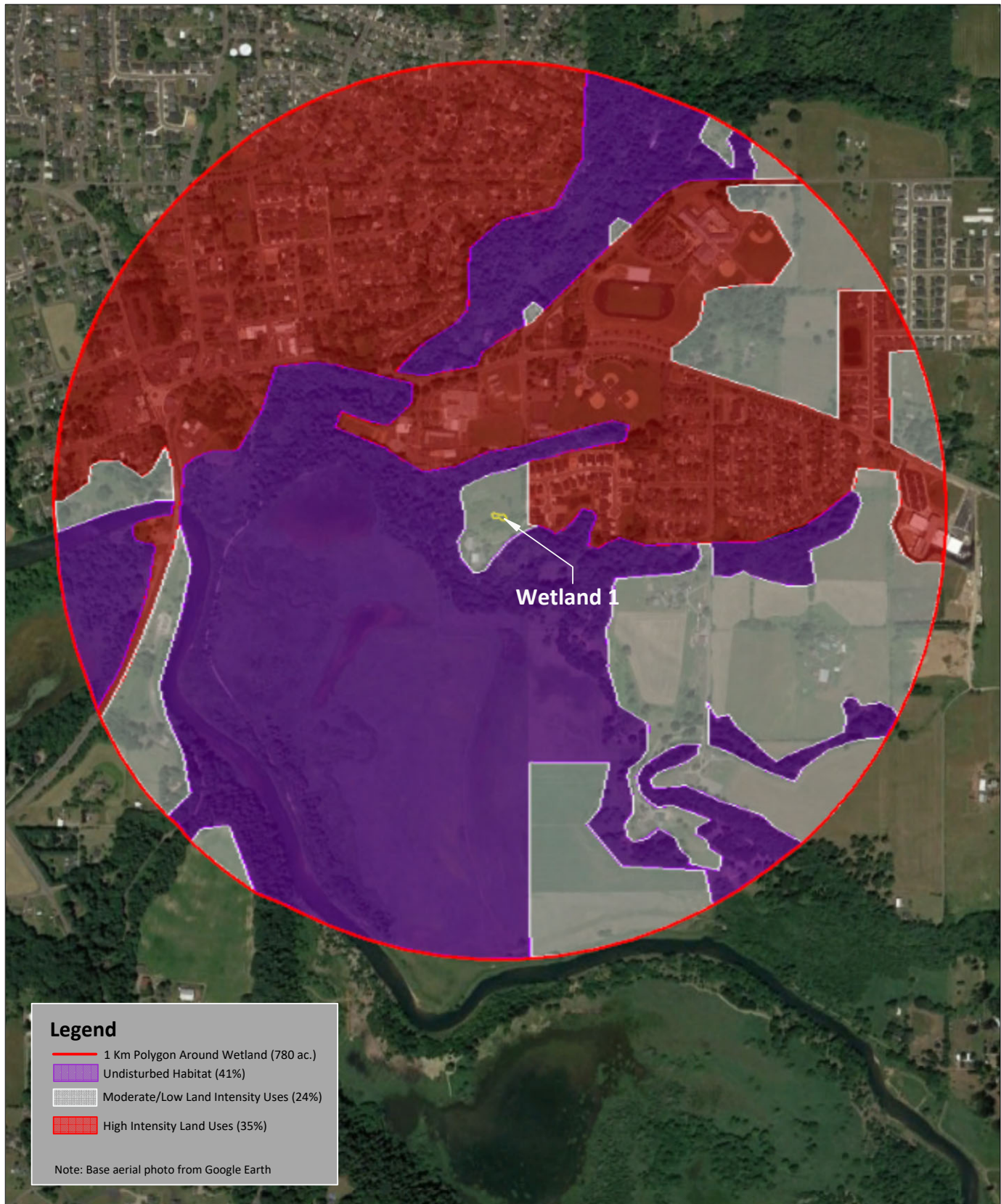
Client:  
 Holly Schlentz  
 C/O: Boss Products, LLC.  
 6729 Guada Coma Dr. #100  
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6/21/22





**Legend**

- 1 Km Polygon Around Wetland (780 ac.)
- Undisturbed Habitat (41%)
- Moderate/Low Land Intensity Uses (24%)
- High Intensity Land Uses (35%)

Note: Base aerial photo from Google Earth

**Figure 4**  
**Wetland Rating Summary (Wetland Unit 1)**  
**1km Polygon**

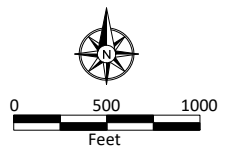
Project: Breeze Creek Trails, LLC Property  
 Tax Parcel: 986044822  
 Location: NE Ivy Avenue & E 2nd Way, La Center, WA 98629  
 Legal: NE 1/4, S03, T4N, R1E of the Willamette Meridian  
 45.85971 N. lat. / -122.66270 W long.  
 County: Clark

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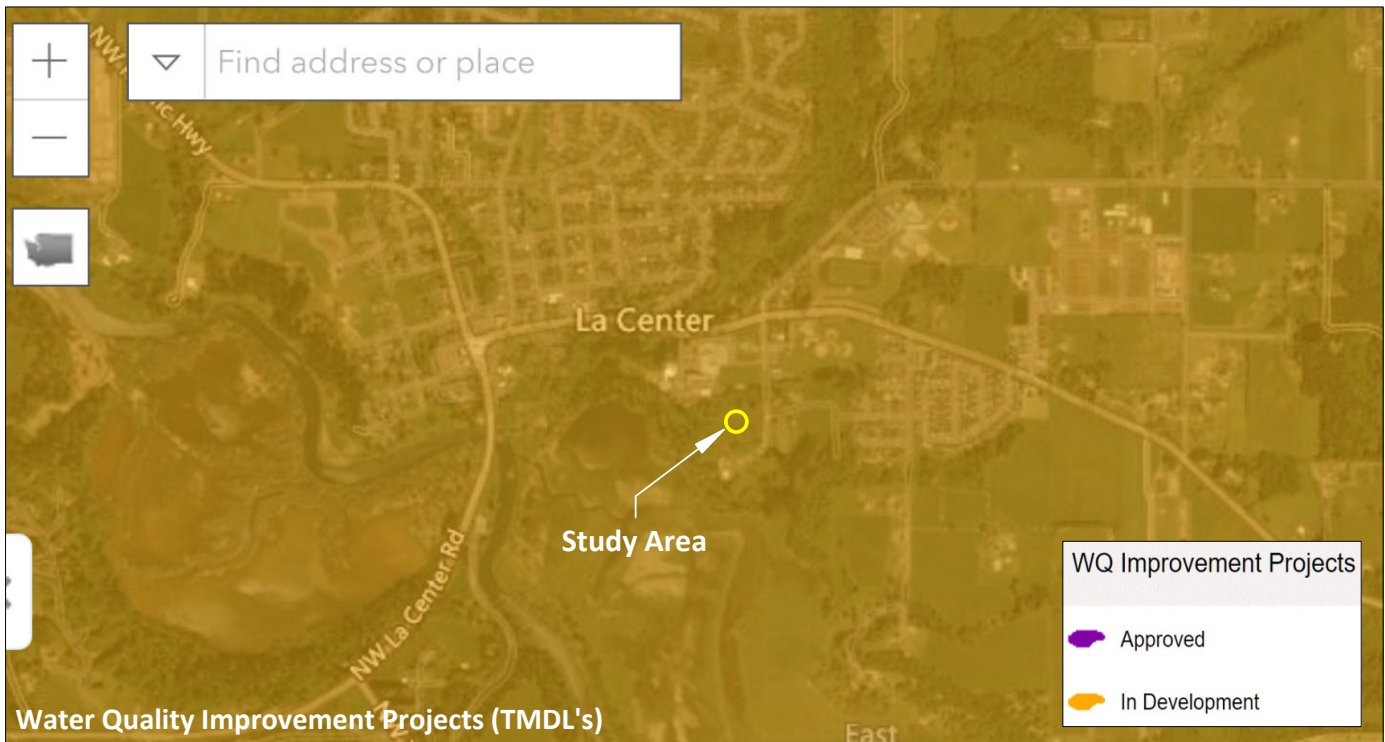
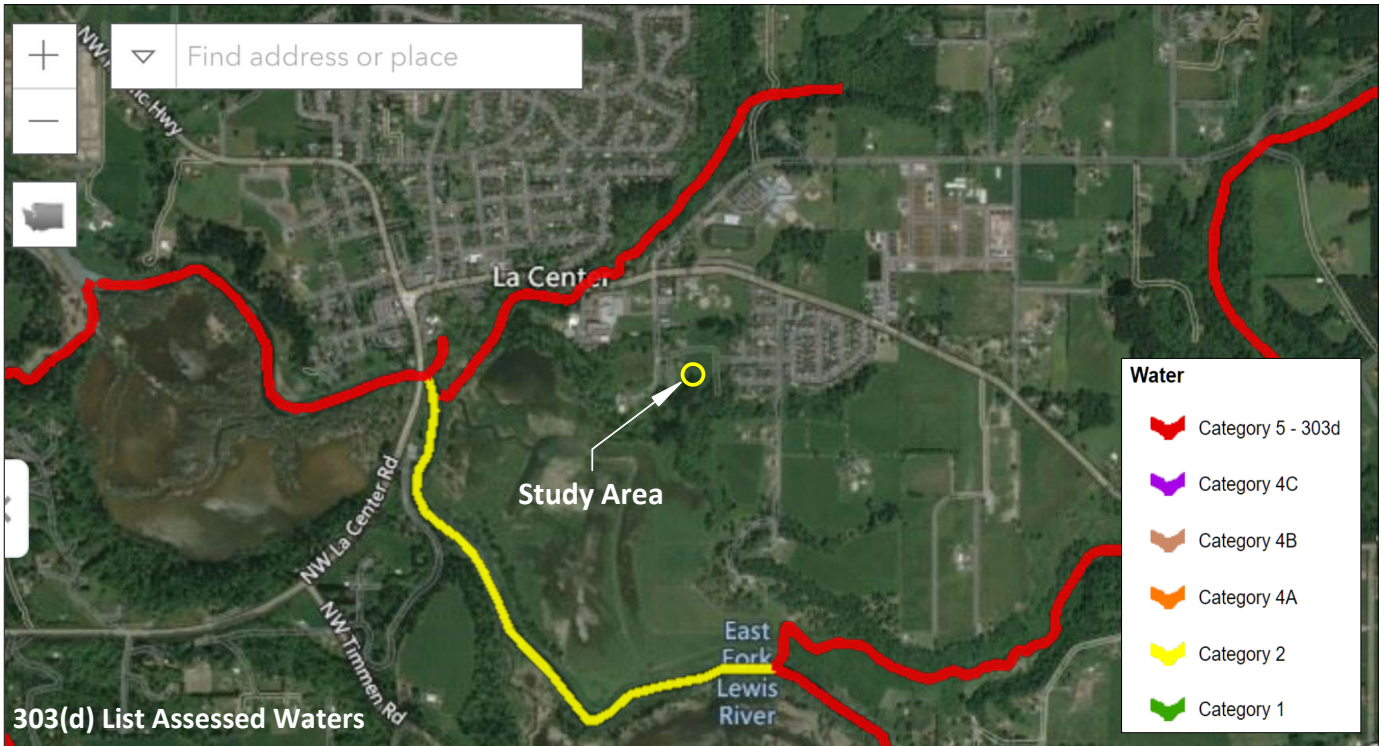


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**Figure 5**  
**Wetland Rating Summary**  
**303(d) List and TMDL from Ecology Water Quality Atlas**

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Not to Scale