

# 22ND AVENUE SE AND CAIN ROAD SE THURSTON COUNTY, WASHINGTON

## WETLAND SUMMARY



Open Understory and good visibility, upland vegetation



Oregon grape and upland vegetation throughout site



Upland Soils throughout site



No wetland conditions at TP#1

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26 January 2018

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17 January 2018

Jeff Pantier, PLS  
Hatton Godat Pantier  
3910 Martin Way E, Suite B  
Olympia, WA 98506

Reference: 22<sup>nd</sup> Avenue SE and Cain Rd SE  
Subject: Critical Areas Summary Report

Dear Mr. Pantier:

This letter has been prepared to provide a summary of our Critical Areas Evaluation on the 6.06-acre subject property (#09940068005, 5.01; 09940069000, 0.33 acre; 09940068003, 0.36 acre; 09940068002, 0.36; 09940068002, 0.36 acre) located on 2017 22<sup>nd</sup> Avenue SE, Olympia, Thurston County, Washington in Section 24, Township 18 North, Range 2 West.

## **1.0 INTRODUCTION AND PURPOSE**

EnviroVector has been asked to perform a Critical Areas evaluation on the subject property. The evaluation was performed to identify potential Critical Areas, including wetlands and streams, that may occur on the subject property. The study focused on low areas and areas where water has the potential to accumulate during the rainy season.

## **2.0 PROCEDURES AND METHODOLOGY OF STUDY**

A Critical Areas evaluation was performed on 15 January 2018 covering the entire subject property and within 300 feet of the subject property to determine the potential presence of wetlands or other critical areas. The routine on-site determination method was used to identify potential wetlands using the procedures outlined in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the 2010 U.S. Army Corps of Engineers (USACE)---*Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*.

Under the Thurston County Code, wetlands are defined as areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not



include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.

- obligate (OBL), (Probability >99% occur in wetlands)
- facultative wetland (FACW), (Probability 67% to 99% occur in wetlands)
- facultative (FAC), (Probability 34% to 66% occur in wetlands)
- facultative upland (FACU), and (Probability 1% to 33% occur in wetlands)
- upland (UPL) (Probability <1% occur in wetlands)

Plant species were identified according to the taxonomy in *Flora of the Pacific Northwest* (Hitchcock and Cronquist, 1973), and the wetland status of plant species was assigned according to the *National List of Plant Species that Occur in Wetlands: Northwest*, published by the U.S. Fish and Wildlife Service (Reed, 1988). A supplement to the wetland plant list (Reed, 1993) and an updated list (Reed, 1998) were also reviewed.

Soils were excavated to 18 inches or more below the surface within test pits to evaluate soil characteristics and hydrological conditions throughout the property. Soil chroma (color) is evaluated using the *Munsell Color Chart* (Munsell Color, 1988).

The COE (Environmental Laboratory, 1987) and DOE (DOE, 1997) manuals describe a wetland rating system for plants. Each plant species is assigned a probability of occurrence within wetlands, which is referred to as its wetland status. The wetland rating system is as follows:

In general, under the 1987 Federal methodology, more than 50 percent of the predominant plant species within a test plot must be rated FAC or wetter (*i.e.*, FACW, OBL) to satisfy the wetland criteria for hydrophytic vegetation. Dominant species are those that have a percent cover greater or equal to 20 percent within the test plot. Only dominant plant species were considered in the data analysis.

If wetland hydrology, including pooling, ponding, and soil saturation, is not clearly evident, hydrological conditions may be observed through surface or soil indicators. Indicators of hydrological conditions include oxidized root channels, drainage patterns, drift lines, sediment deposition, watermarks, historic records, visual observation of saturated soils, and visual observation of inundation.

### 3.0 STUDY RESULTS

#### 3.1 Background Information

##### 3.1.1 Thurston County Geodata Soils

Two (2) non-wetland soil types are mapped on the subject property by the Thurston County Geodata Center database (**Appendix B**).

###### Soil Types

- 1) Yelm fine sandy loam, 3 to 15% slopes (Non-hydric) (Low preference Gopher Soil)

##### 3.1.2 Thurston County Geodata Center Wetlands & Streams

No wetland or streams have been mapped onsite or within 300 feet of the subject property by the Thurston County Geodata Center (**Appendix C**).

##### 3.1.5 The WDFW PHS Database

No Priority Habitats and Species (PHS), including wetlands and streams, have been identified on or within 300 feet of the subject property by the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) database (**Appendix D**).

The nearest priority habitat is a wetland mapped 2,423 feet east of the subject property.

#### 3.2 Field results

No wetlands or steams have been identified on or within 300 feet of the subject property at the time of the site evaluation (**Figure 2**). The topography on the site is relatively flat. Scattered shadow depressions occur throughout the site. Each shallow depression contained upland vegetation, non-hydric soils, and no wetland hydrology. Data was collected at a Test Plot labeled TP-1 within the largest of these shallow depressions (**Figures 2 & 3**).

Vegetation at TP-1 consists of:

Common Name	Scientific Name	Wetland Status	Percent Cover (%)
Western red cedar	<i>Thuja plicata</i>	FAC	40
Hemlock	<i>Tsuga heterophylla</i>	FACU	30
Big leaf maple	<i>Acer macrophyllum</i>	FACU	20
Oregon Grape	<i>Mahonia nervosa</i>	FACU	50
English Ivy	<i>Hedera helix</i>	FACU	50
Sword fern	<i>Polystichum munitum</i>	FACU	30



Dominant vegetation within the shallow depression, located on the northeastern corner of the subject property, consists of non-wetland vegetation (**Appendix A, Photos 1-4**). No wetland vegetation community occurs within the shallow depression. Vegetation throughout the site consists of young to second growth forest and herbaceous cover, which provided reasonable visibility. Understory plants consists of upland vegetation throughout the subject property. Dominant forest cover consists of upland tree species (**Appendix A, Photos 7 & 8**).

Soils on the entire subject property are mapped as Yelm fine sandy loam, 3 to 15% slopes and are classified as moderately well drained (Non-hydric). Soils at TP-1 are characterized as a very dark brown sandy loam (10YR 2/2) and brown sandy loam (10YR 4/3) from 9 to 18 inches (**Figures 2 & 3; Appendix A, Photo 3**).

No wetland hydrology was identified during the site evaluation. No wetland hydrology was identified at TP-1 (**Appendix A, Photo 5**).

#### **4.0 REGULATORY CONSIDERATIONS**

No critical areas were identified on site or within 300 feet of the subject property. There are no critical areas to apply to regulatory considerations.

#### **5.0 CONCLUSION**

No wetlands, stream, or other critical areas were identified on or within 300 feet of the subject property at the time of the site evaluation. Some topography occurs on the site but no defined channels, sorted gravels, or evidence of flowing water was found.

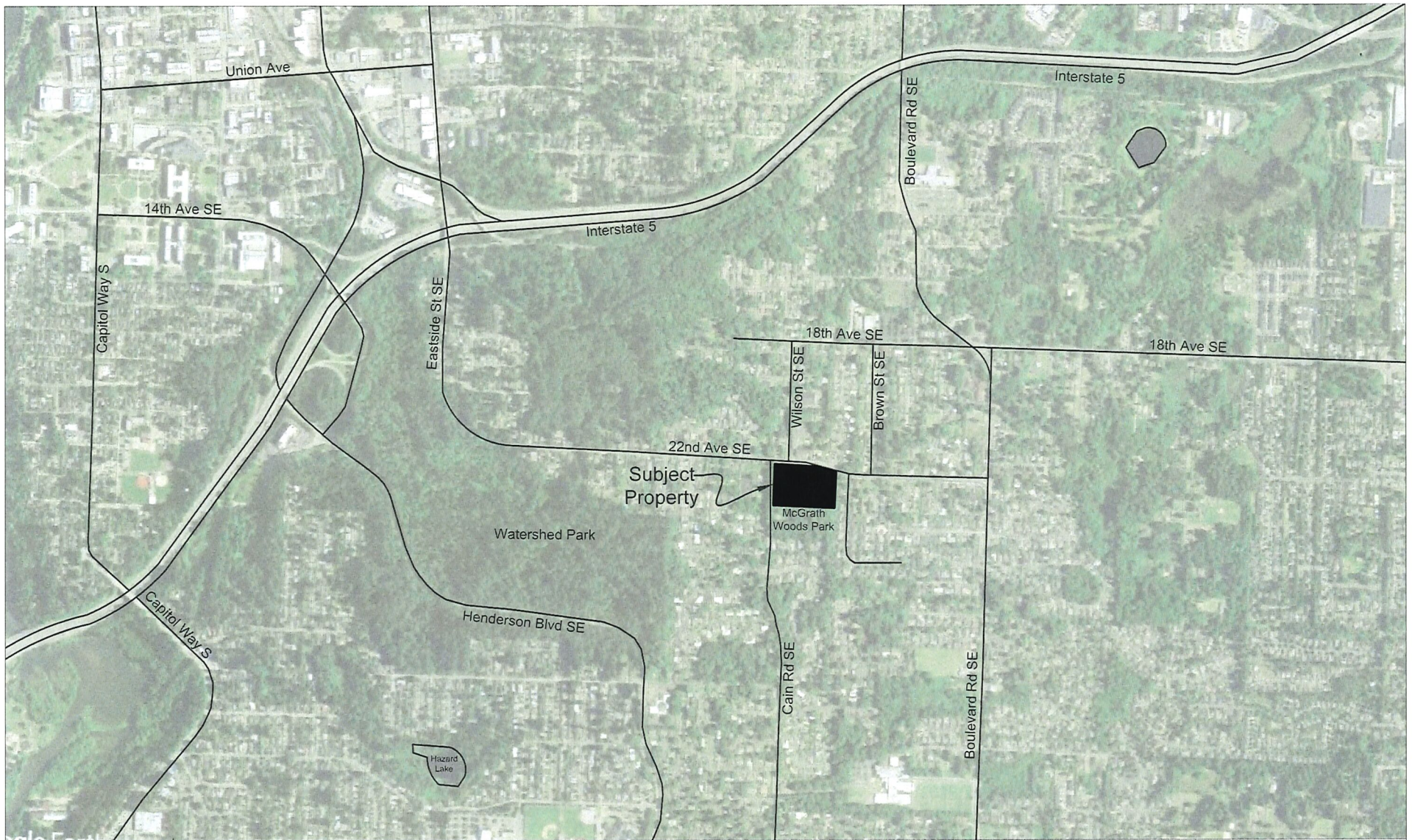
If you have any questions or require further services, you can contact me at (360) 790-1559.

Sincerely,

A handwritten signature in black ink, appearing to read "Curtis Wambach". The signature is fluid and cursive, with the first name "Curtis" being more legible than the last name "Wambach".

**Curtis Wambach, M.S.**  
Senior Biologist and Principal  
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## **FIGURES**



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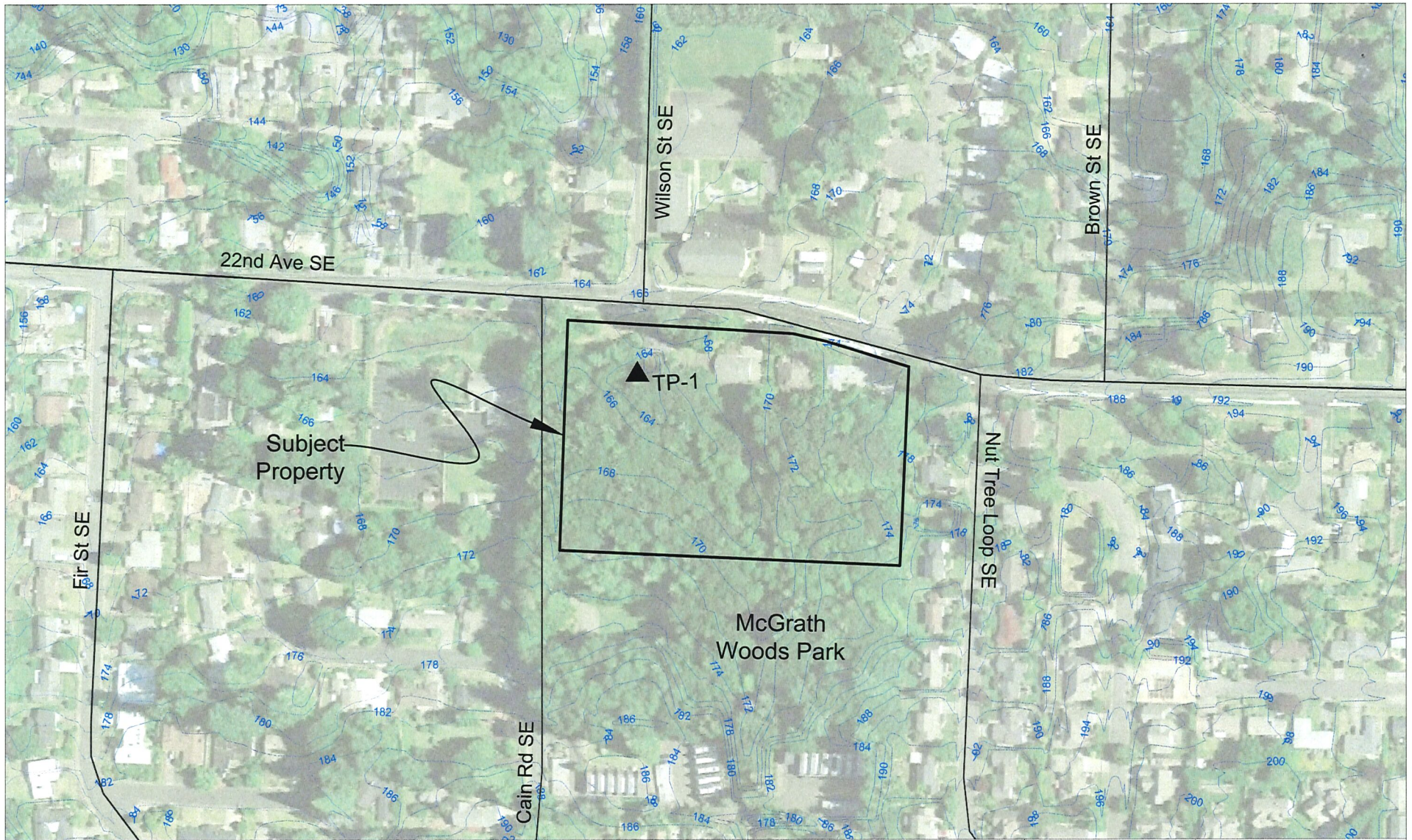
Figure 1  
 22nd & Cain  
 Vicinity Map

Scale: 1" = 1,400'  
 0 1,400'  
 26 January 2018









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— Contour Lines  
▲TP-1 Test Plot

Figure 3

22nd & Cain

Site Contours

Scale: 1" = 250'

0 250'

26 January 2018

# **APPENDIX A**

## Photographs





Photo 1: Vegetation at Test Plot TP#1, Oregon Grape (FACU)



Photo 2: Upland vegetation around TP#1



Photo 3: Upland soils and vegetation & no hydrology at TP#1



Photo 4: Upland vegetation in shallow depression



Photo 5: No hydrology at TP#1



Photo 6: Upland vegetation around TP#1



Photo 7: Trees and herbaceous vegetation, no significant shrubs



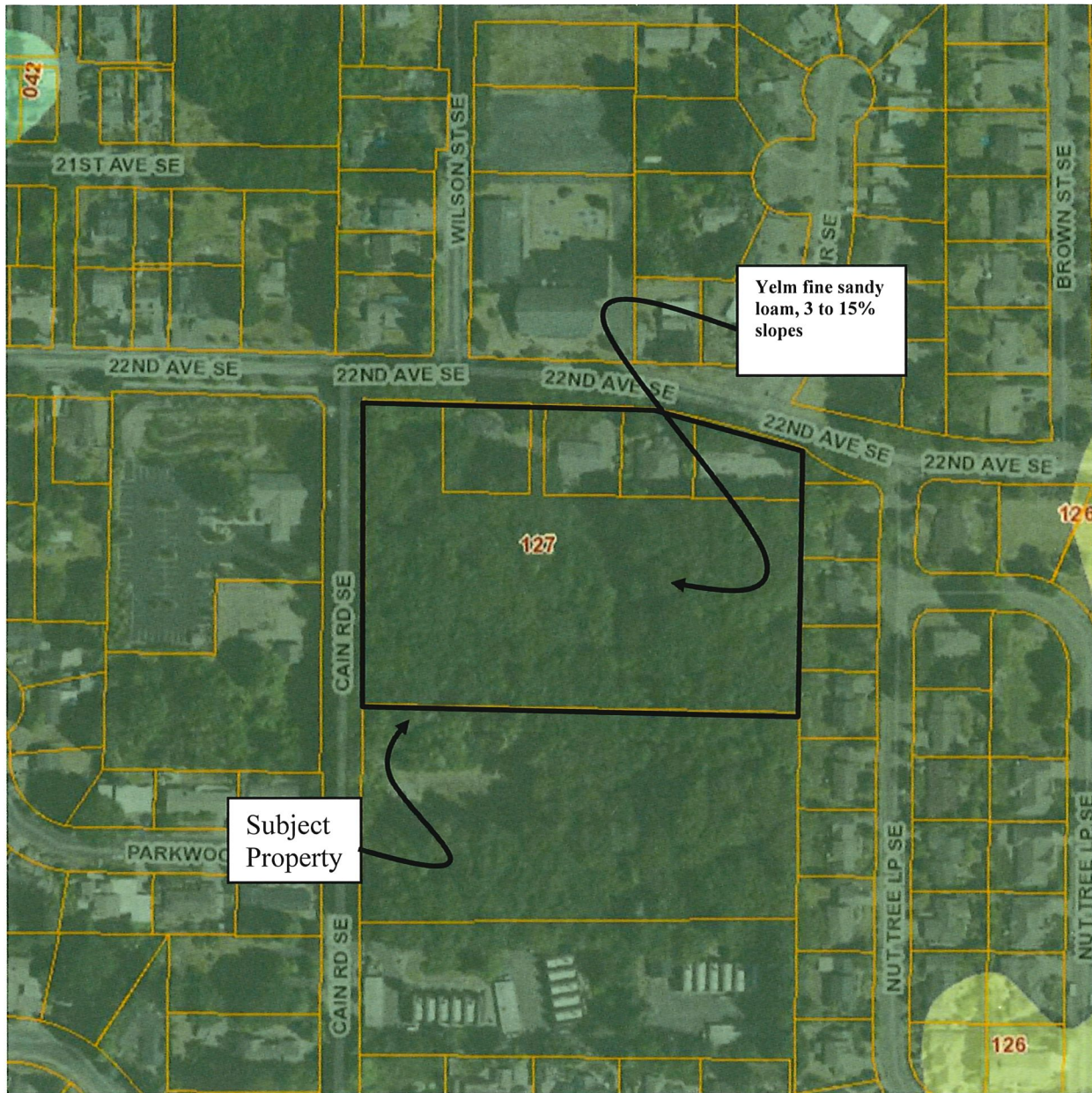
Photo 8: Upland vegetation at property boundary



# **Appendix: B**

## **Thurston County Geodata**

### **Soil**





# **Appendix: C**

## **Thurston County Geodata**

### **Wetlands & Streams**



## **APPENDIX D**

### **Washington Department of Fish and Wildlife (WDFW)**

### **Priority Habitats and Species (PHS)**

### **Database**



