
OSTROMS MUHSROOM FARM

CITY OF LACEY, WASHINGTON

CRITICAL AREAS REPORT

Prepared By:



Curtis Wambach, M.S.
Senior Biologist and Principal



8 September 2022

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this Critical Areas Report is to identify and map Critical Areas on and within three hundred (300) feet of the subject property. Potential wetlands and their buffers were evaluated as part of this study. This Critical Areas Report has been prepared to satisfy the City of Lacey reporting requirements.

1.2 Property Location

The 33.86-acre subject property is located on Steilacoom Road Southeast in the City of Lacey (**Figure 1; Table 1**).

Table 1. Parcels Comprising Subject Property

No#	Address	Parcel Number	Map Coordinates	Area
1	8322 STEILACOOM RD SE	11814140500	Section 23 Township 18 Range 1W	33.86
1 Parcel	Total Size			33.86 acres

Permitting jurisdiction is the City of Lacey.

1.3 Site Evaluation

A Critical Areas evaluation was performed on the subject property on 15 June 2022.

1.4 Property Description

The subject property consists of an abandoned mushroom farm with large buildings, hard surface, large area of stacked pallets, and other structures associated with mushroom farm operations (**Figure 2; Appendix A, Photos 1-24**). The central portion of the subject property primarily consists of concrete, pavement, and large buildings surrounded by a ring of grass on compressed rock. The northern and eastern peripheries of the subject property are vegetated by a forest of Oregon white oaks (*Quercus garryana*; FACU) with an understory dominated by invasive weeds, primarily Himalayan blackberry (*Rubus armeniacus*; FAC), English ivy (*Hedera helix*; FACU), and poison hemlock (*Conium maculatum*; FAC) (**Figure 2; Appendix A, Photos 25-52**). Some native oak-associated plant species are scattered in patches within the understory that includes snowberry (*Symphoricarpos albus*; FACU), tall Oregon grape (*Mahonia aquifolium*; FACU), beaked hazelnut (*Corylus cornuta*; FACU), and serviceberry (*Amelanchier alnifolia*; FACU) (**Appendix A, Photos 25-52**).

2.0 METHODOLOGY

This report is based on a review of existing information and field investigations. The goal of these efforts is to collect and document existing information that reflects current site conditions for assessing potential impacts.

2.1 Review of Existing Literature

Prior to conducting fieldwork, and throughout the duration of project design, biologists reviewed existing information to identify wetlands, streams, vegetation patterns, topography, soils, wildlife habitats, and other natural resources in the project area.

Existing data sources that were reviewed for this report included but were not limited to the following:

- Washington U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Soil Survey
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), online wetlands mapper
- Washington Department of Fish and Wildlife (WDFW) Salmonscape Database
- Washington Department of Fish and Wildlife (WDFW) Priority and Habitat Species (PHS) Database
- Washington State Department of Natural Resources (DNR) Natural Heritage Database
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies

2.2 Field Investigation

A wetland evaluation was performed onsite as well as offsite of the subject property to determine if wetlands, streams, or their buffers extend onto the subject property. 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 U.S. Army Corps of Engineers (USACE, 2010) Regional Wetland Supplement.

2.3 Wetland Identification

Prior to 2010, biologists delineated wetlands according to the methods specified in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987). At that time, these methods complied with those in the Washington State Wetland Identification and Delineation Manual (Washington State Department of Ecology [Ecology], 1997).

Following 2010, biologists evaluate wetlands according to the methods specified in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE, 2010). These methods comply with those adopted by Washington State pursuant to Washington Administrative Code (WAC) 173-22-035, Revised Code of Washington (RCW) 90.58.380.

2.3.1 Vegetation

The dominant plants and their wetland indicator status were evaluated to determine whether the vegetation is hydrophytic. Hydrophytic vegetation is generally defined as vegetation adapted to prolonged saturated soil conditions. To meet the hydrophytic vegetation criterion, more than fifty percent (>50%) of the dominant plants must be facultative, facultative wetland, or obligate, according to the plant indicator status category assigned to each plant species by the USACE National Wetland Plant List. **Table 2** provides the definitions of the indicator status categories. The scientific and common names for plants follow the currently accepted nomenclature. Dominant plant species were observed and recorded on wetland determination data forms for each data plot (**Appendix I**).

Table 2. Key to Plant Indicator Status Categories

Plant Indicator Status Category	Symbol	Description
Obligate Wetland Plants	OBL	Plants that almost always (>99% of the time) occur in wetlands but may rarely (<1% of the time) occur in non-wetlands
Facultative Wetland Plants	FACW	Plants that often (67% to 99% of the time) occur in wetlands but sometimes (1% to 33% of the time) occur in non-wetlands
Facultative Plants	FAC	Plants with a similar likelihood (33% to 66% of the time) of occurring in both wetlands and non-wetlands
Facultative Upland Plants	FACU	Plants that sometimes (1% to 33% of the time) occur in wetlands but occur more often (67% to 99% of the time) in non-wetlands
Upland Plants	UPL	Plants that rarely (<1% of the time) occur in wetlands and almost always (> 99% of the time) occur in non-wetlands

2.3.2 Soils

Soils were excavated to eighteen (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). Generally, an area must have hydric soils to be considered a wetland. Hydric soil forms when soils are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper portion. Biological activities in saturated soil result in reduced concentrations of oxygen that in turn result in a preponderance of organisms that use anaerobic processes for metabolism. Over time, anaerobic biological processes result in certain soil color patterns, which are used as indicators of hydric soil. Typically, low-chroma colors are formed in the matrix of hydric soil. Bright-colored redoximorphic features form within the matrix under a fluctuating water table. Other important hydric soil indicators include organic matter accumulations in the surface layer, reduced sulfur odors, and organic matter staining in the subsurface.

2.3.3 Hydrology

The project area was examined for evidence of hydrology. The USACE (2005) provides a technical standard for monitoring hydrology on such sites. This standard requires 14 or more consecutive days of flooding or ponding, or a water table twelve (12) in. (thirty [30] cm) or less below the soil surface, during the growing season at a minimum frequency of five (5) years in ten (10) (fifty percent [50%] or higher probability). The USACE 2010 Regional Supplement provides a list of hydrology indicators to evaluate whether the hydrology standard is satisfied. 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.

2.4 Wetland Classification and Rating

Delineated wetlands are typically classified according to the USFWS Classification of Wetlands and Deepwater Habitats of the United States (USFWS, 1979). Hydrogeomorphic classifications are assigned to wetlands using USACE methods established in *A Hydrogeomorphic Classification for Wetlands* (USACE, 1993) and are then rated using the revised Washington State Wetland Rating System for Western Washington.

3.0 STUDY RESULTS

3.1 Background Information

3.1.1 Thurston County Geodata Soils

Three (3) non-hydric soil types are mapped on the subject property by the Thurston County Geodata Center database (**Appendix B; Table 3**).

Table 3. Thurston County Geodata Soils Summary

Soil Unit	Hydric	Comments
Everett very gravelly sandy loam, 3 to 15% slopes	No	Mapped on the northeastern corner of the subject property
Spanaway gravelly sandy loam, 0 to 3% slopes	No	Mapped on the majority of the subject property
Spanaway gravelly loam	No	Mapped on southeastern corner of the subject property

3.1.2 Thurston County Geodata Wetlands & Streams

No wetlands or streams have been mapped on the subject property by the Thurston County Geodata Center Database (**Appendix C**). One (1) wetland has been mapped approximately three hundred (300) feet north of the northeastern corner of the subject property across three (3) developed lots.

3.1.3 WDFW Priority Habitats and Species (PHS) Database

No wetlands or priority habitats or species have been mapped on the subject property by the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Database (**Appendix D**). An off-site wetland is mapped approximately five hundred eighty (~580) feet northeast of the subject property.

Mazama (western) pocket gopher (*Thomomys mazama*) presence is mapped offsite approximately eight hundred (~800) feet southwest of the subject property.

The big brown bat (*Eptesicus fuscus*), little brown bat (*Myotis lucifugus*), and Yuma myotis (*Myotis yumanensis*) are mapped in the Township.

3.1.4 Thurston County Geodata High Groundwater Hazard

No High Groundwater Hazard Areas are mapped on the subject property by the Thurston County Geodata Center Database (**Appendix E**).

A High Groundwater Hazard Area is mapped offsite approximately three hundred (~300) feet north of the northeastern corner of the subject property. A groundwater hazard review area is mapped on the eastern portion of the northern property line. The review area extends over developed lots between the mapped High Groundwater Hazard Areas and the subject property.

3.1.5 Thurston County Geodata FEMA Floodplain

No FEMA floodways are mapped on the subject property or in the vicinity of the subject property (**Appendix F**).

3.1.6 Clean Water Act 303(d)

No 303d listed watercourse is mapped on the subject property by the Department of Ecology (DOE) Water Quality Atlas Map (**Appendix F**). A 303(d) listed water is mapped approximately eight thousand four hundred (~8,400) feet downstream to the northeast of the subject property.

3.1.7 Total Maximum Daily Load (TMDL)

Approved TMDL is mapped over the subject property by the DOE Water Quality Atlas (**Appendix G**).

3.2 Field Results

No wetlands or streams have been identified on the subject property (**Figure 3**). A wetland, labeled Wetland A, is mapped by the Thurston County Geodata Center two hundred eighty-nine (289) feet north of the northeastern corner of the subject property (**Figure 3**). Another wetland, labeled Wetland B, is mapped by the Thurston County Geodata Center database four hundred forty-three (443) feet northwest of the northwestern corner of the subject property (**Figure 3**). Because Wetland B is mapped at a distance further from the subject property than the largest wetland buffer, no further analysis of Wetland B will occur as part of this report.

Wetland A is a depressional, forested, seasonally-flooded wetland. No habitat corridor occurs between Wetland A and the subject property. Three (3) developed lots are located between Wetland A and the subject property.

Table 4. Summary of Critical Areas Results

Wetlands						
Wetland	Area of Wetland		Cowardin Class	Buffer Condition	Habitat Features	Comments
	On-site	Total				
Wetland A	0 sf (0 acres)	30,949 sf (0.71 acre)	PFOC ¹	Forest and single-family development	Logs, snags, & amphibian habitat	Located entirely offsite of subject property

1. PFOC: Palustrine Forested Seasonally-flooded

4.0 REGULATORY CONSIDERATIONS

Wetland regulatory considerations have been summarized in **Table 5**.

Table 5. Summary of Regulatory Considerations

Wetland							Comments
Wetland	Area of Wetland		Category	Habitat Score	Standard Buffer	Reduced Buffer	
	On-site	Total					
Wetland A	0 sf (0 acres)	30,949 sf (0.71 acre)	III	4 (L, L, M)	140 ft	105ft	Buffer does not extend onto Subject Property

4.1 Wetland A

Wetland A has been classified as a Category III wetland using the Department of Ecology (DOE; 2014) *Wetland Rating System for Western Washington* as required under TCC 24.30.030---*Wetland categories*. Wetland A is a depressional wetland under the DOE (2014) *Wetland Rating System for Western Washington*.

Under TCC 24.30.045---*Wetland buffers---Standard width*, wetland buffers are calculated based on the habitat score determined by the Washington State Department of Ecology (2014) *Wetland Rating System*. Wetland A scored a “Low (L)” potential to provide habitat, a “Low (L)” landscape potential to support habitat, and a “Medium (M)” potential value to society. Wetlands that rate as an L, L, M (order of ratings are not important) receive a score of four (4) points for total habitat functions (**Appendix K**).

The standard buffer for wetlands that score four (4) points for Habitat Functions provided by the rating of L, L, M require a buffer width of one hundred forty (140) feet (TCC Table 24.30-1---*Standard Wetland Buffer Widths*) (**Figure 4; Table 5**).

The one hundred forty (140) foot buffer does not extend onto the subject property (**Figure 4**). Thereby, no regulatory restrictions to land use would occur as a result of Wetland A or its buffer.

4.0 CONCLUSION

No Critical Areas, including wetlands or streams, have been identified on the subject property (**Figure 3**). A wetland, labeled Wetland A, is mapped by the Thurston County Geodata Center two hundred eighty-nine (289) feet north of the northeastern corner of the subject property (**Figure 3**). Another wetland, labeled Wetland B, is mapped by the Thurston County Geodata Center database four hundred forty-three (443) feet northwest of the northwestern corner of the subject property (**Figure 3**). Because Wetland B is mapped at a distance further from the subject property than the largest wetland buffer, no further analysis of Wetland B will occur as part of this report.

Wetland A has been classified as a Category III wetland using the Department of Ecology (DOE; 2014) *Wetland Rating System for Western Washington* as required under TCC 24.30.030---*Wetland categories*. Wetland A is a depressional wetland under the DOE (2014) *Wetland Rating System for Western Washington*.

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The one hundred forty (140) foot buffer does not extend onto the subject property. Thereby, no regulatory restrictions to land use would occur as a result of Wetland A or its buffer.

5.0 REFERENCES

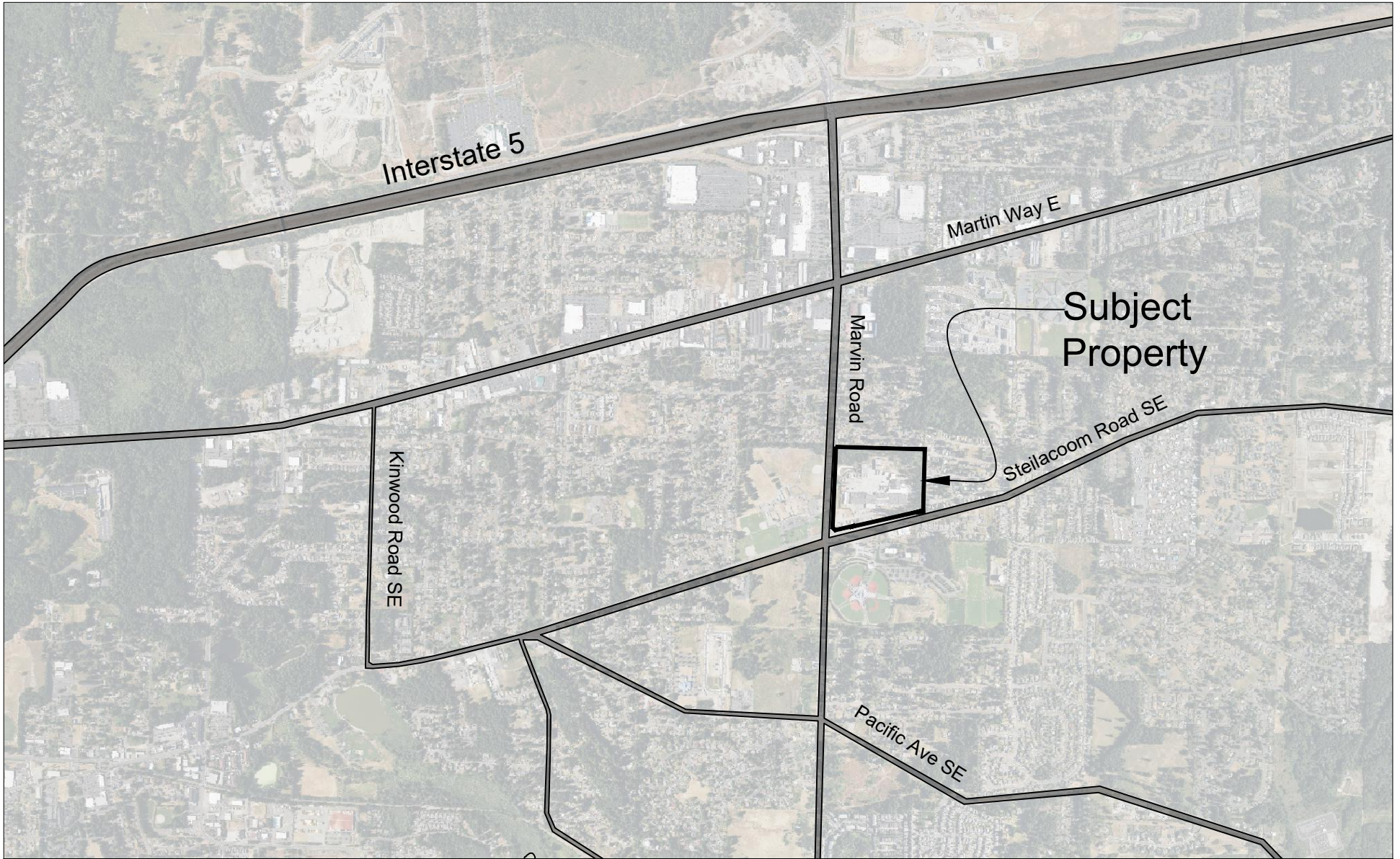
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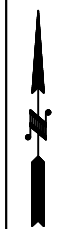
FIGURES

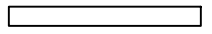



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Figure 1
Ostrom
Property

Vicinity Map



Scale: 1" = 2000'

0 2000'
8 September 2022

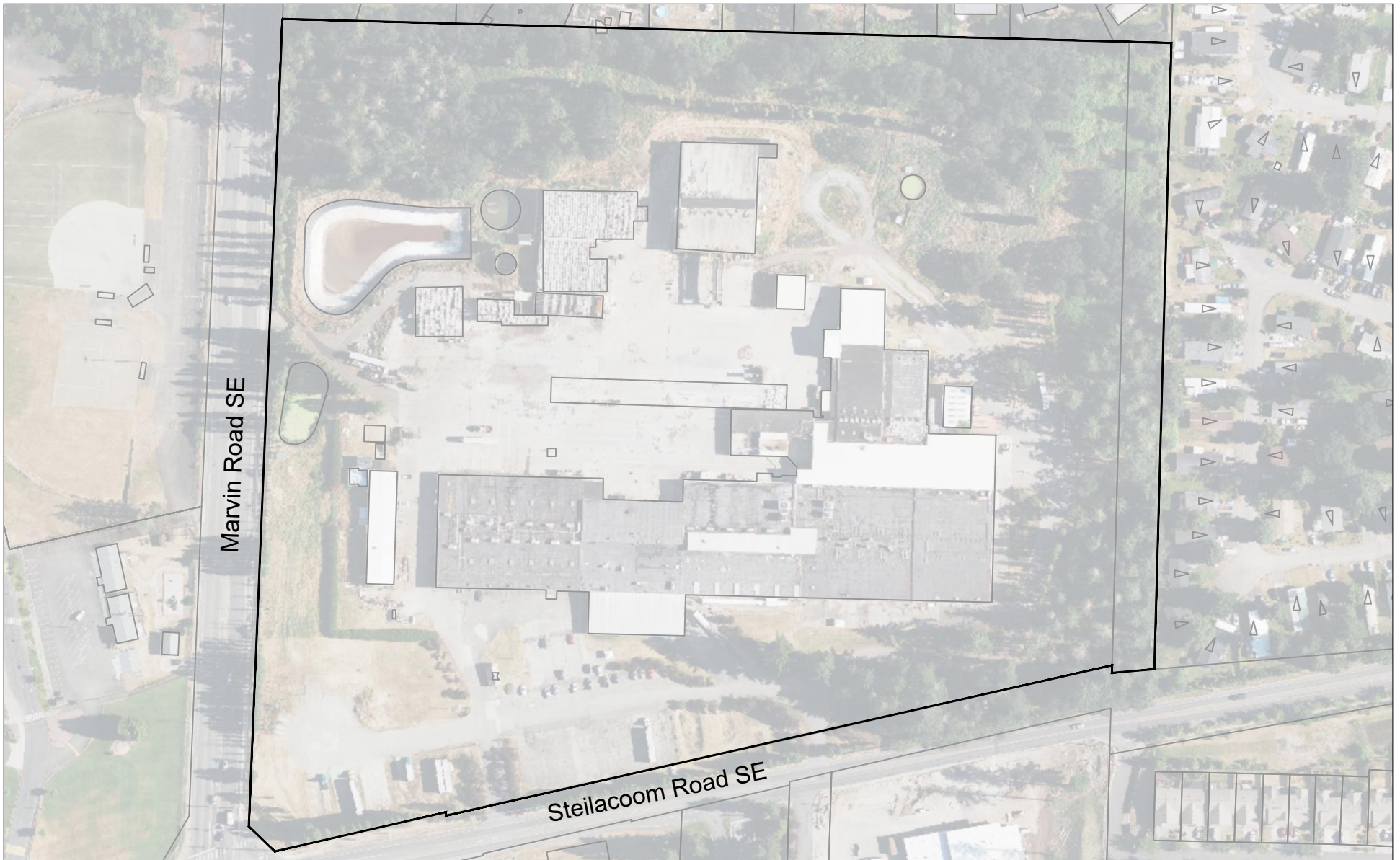
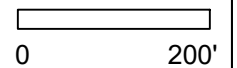


Figure 2
Ostrom
Property

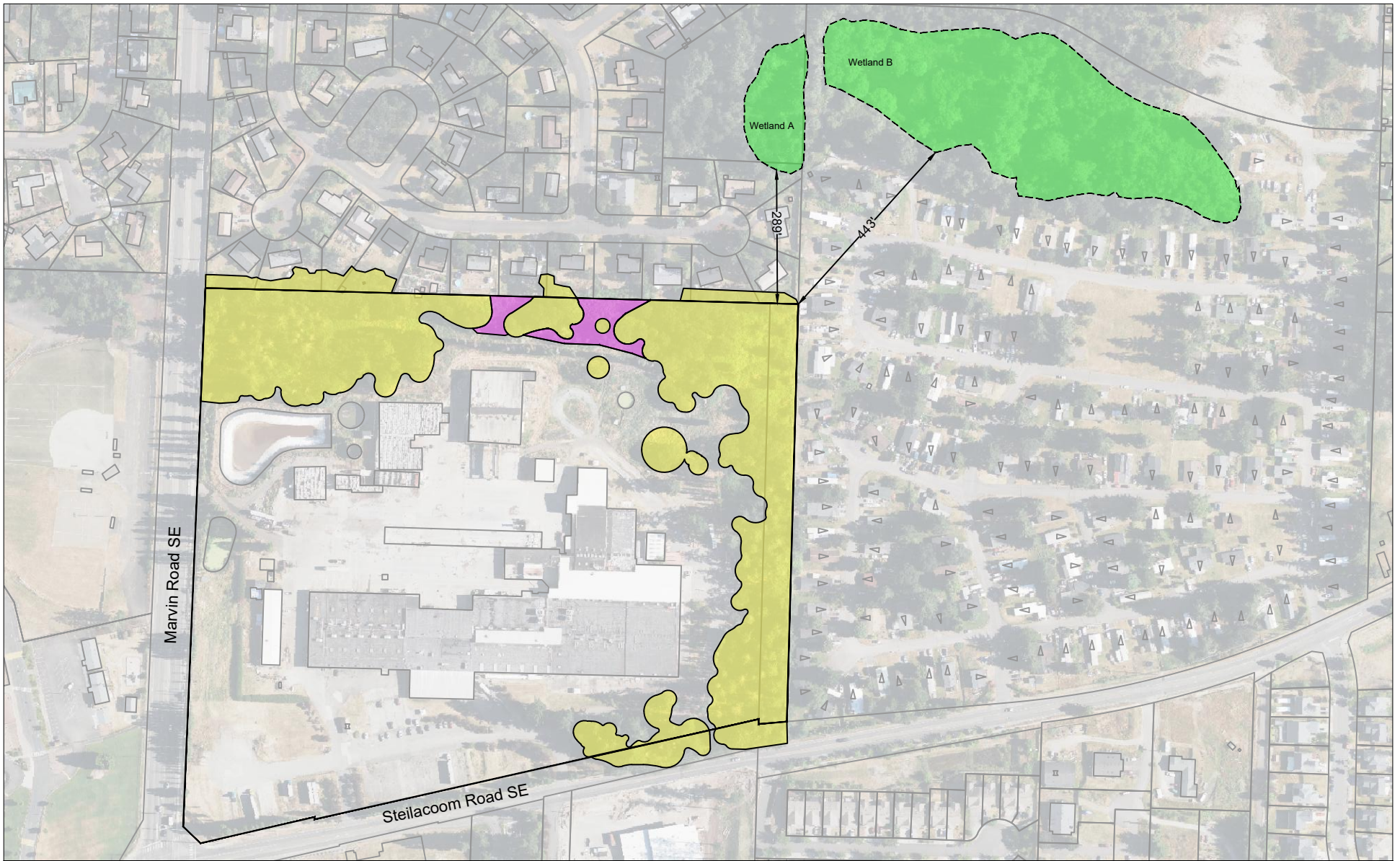
Existing
Conditions



Scale: 1" = 200'



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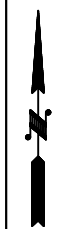
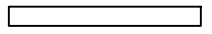
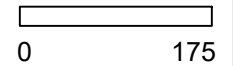
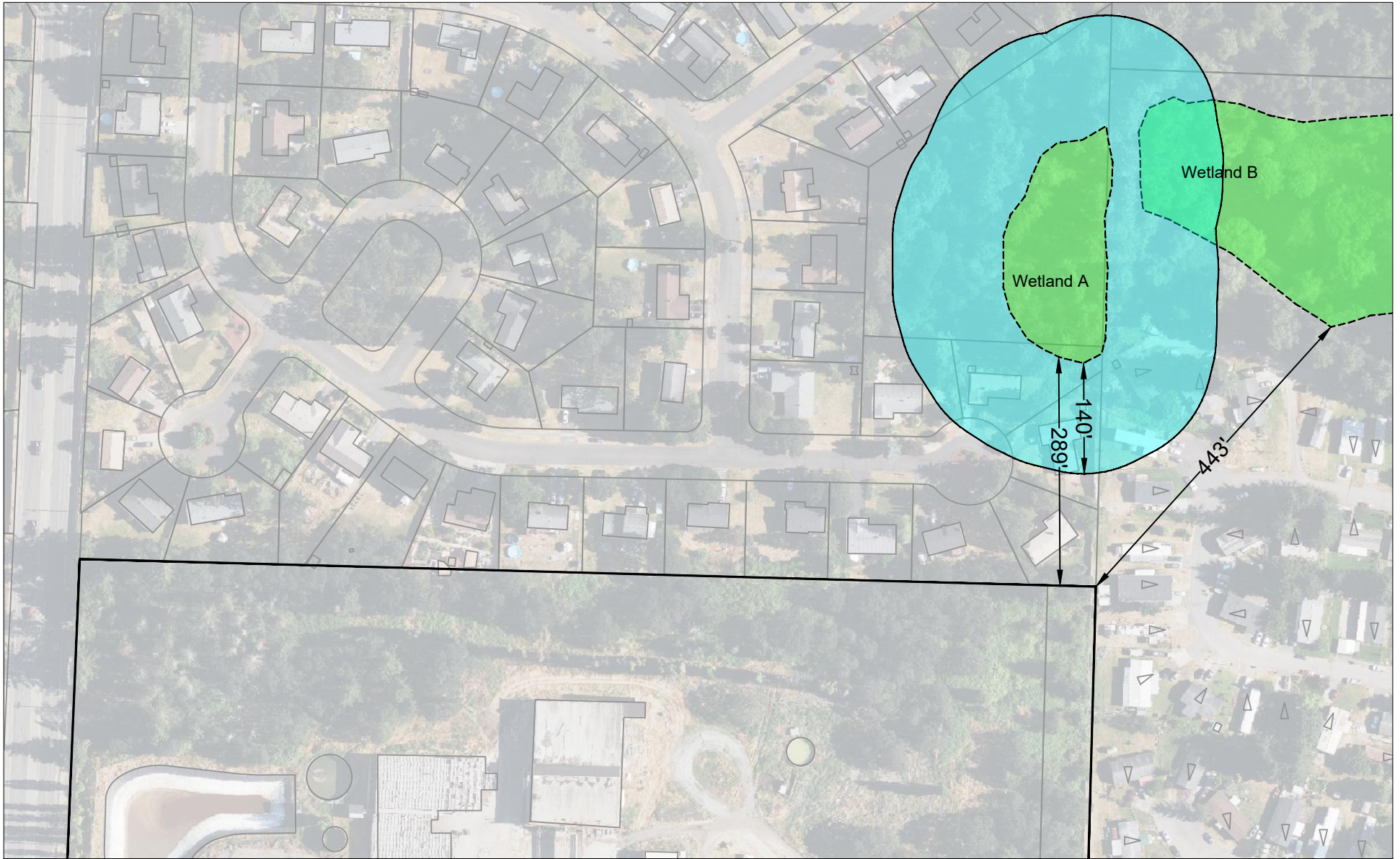
-  Off-site Wetland Mapped by Thurston County Geodata Center
-  Oak Habitat
-  Invasive Non-native Weeds

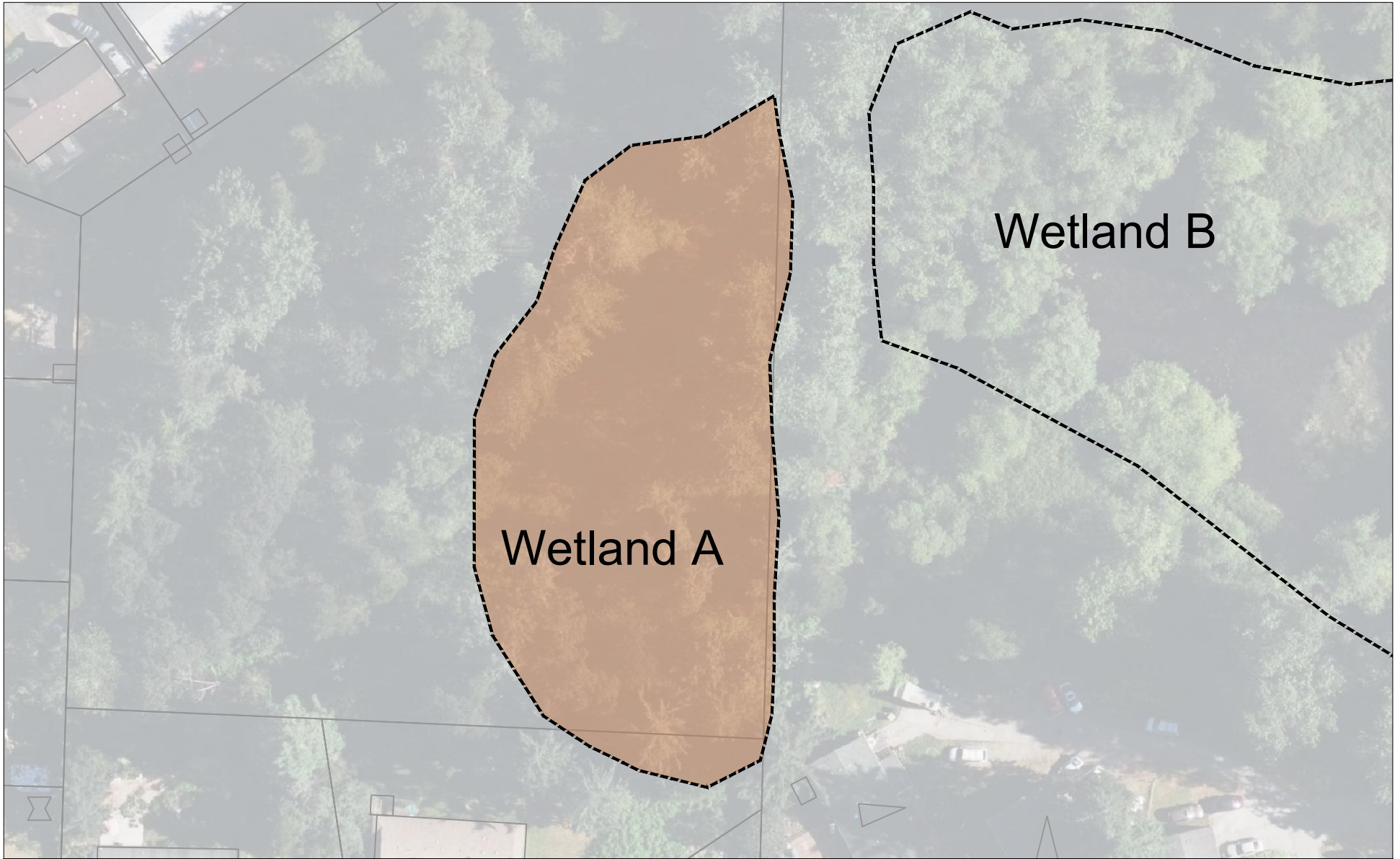
Figure 3
 Ostrom
 Property
 Study Results



Scale: 1" = 300

 0 300

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Wetland A

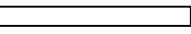
Wetland B

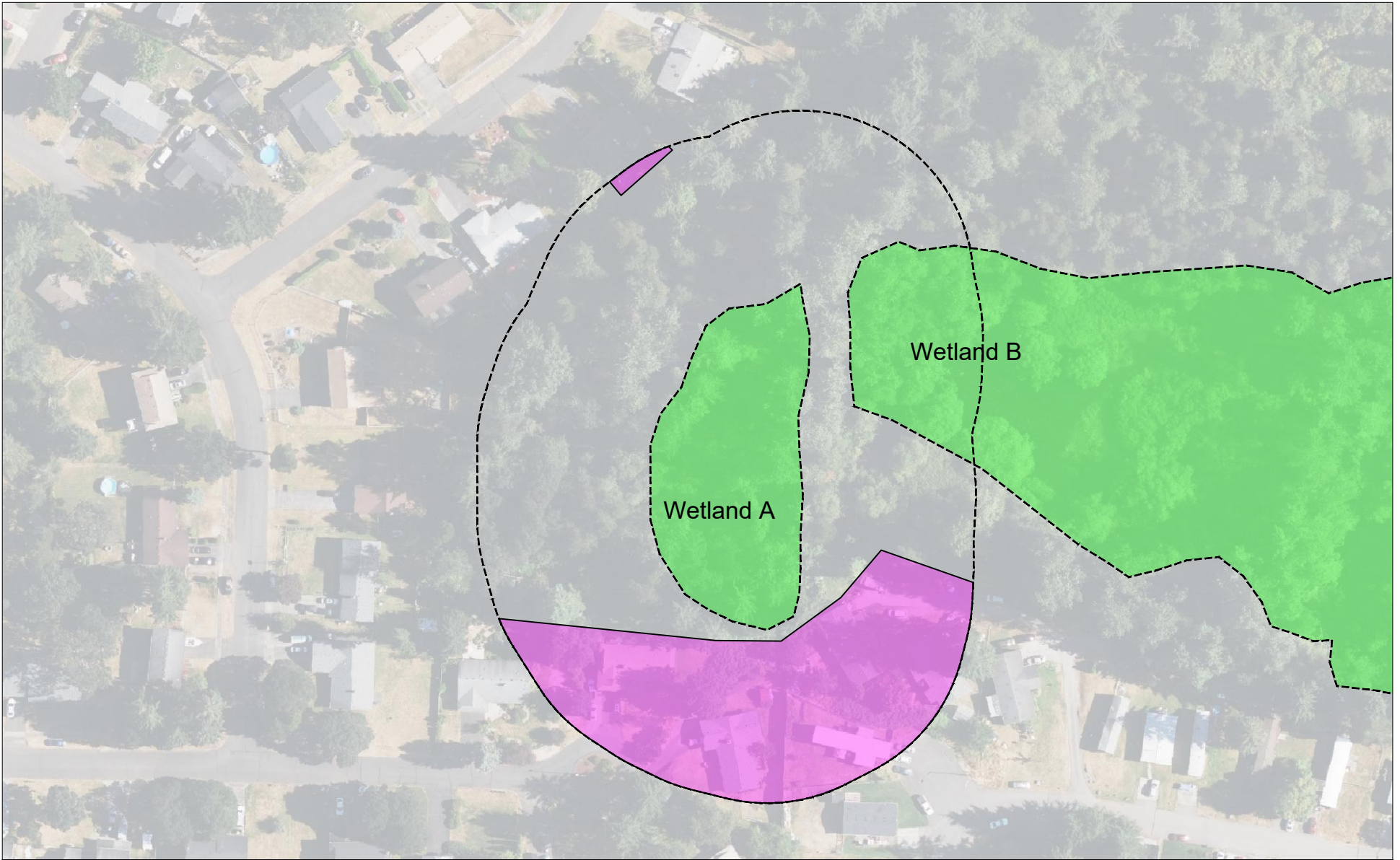

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 Forested Seasonally-flooded

Figure 5
Ostrom Property
Hydroperiods &
Vegetation Classes



Scale: 1" = 60'

0 60'
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
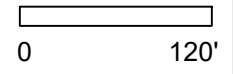
 Potential Pollutants (>10%)

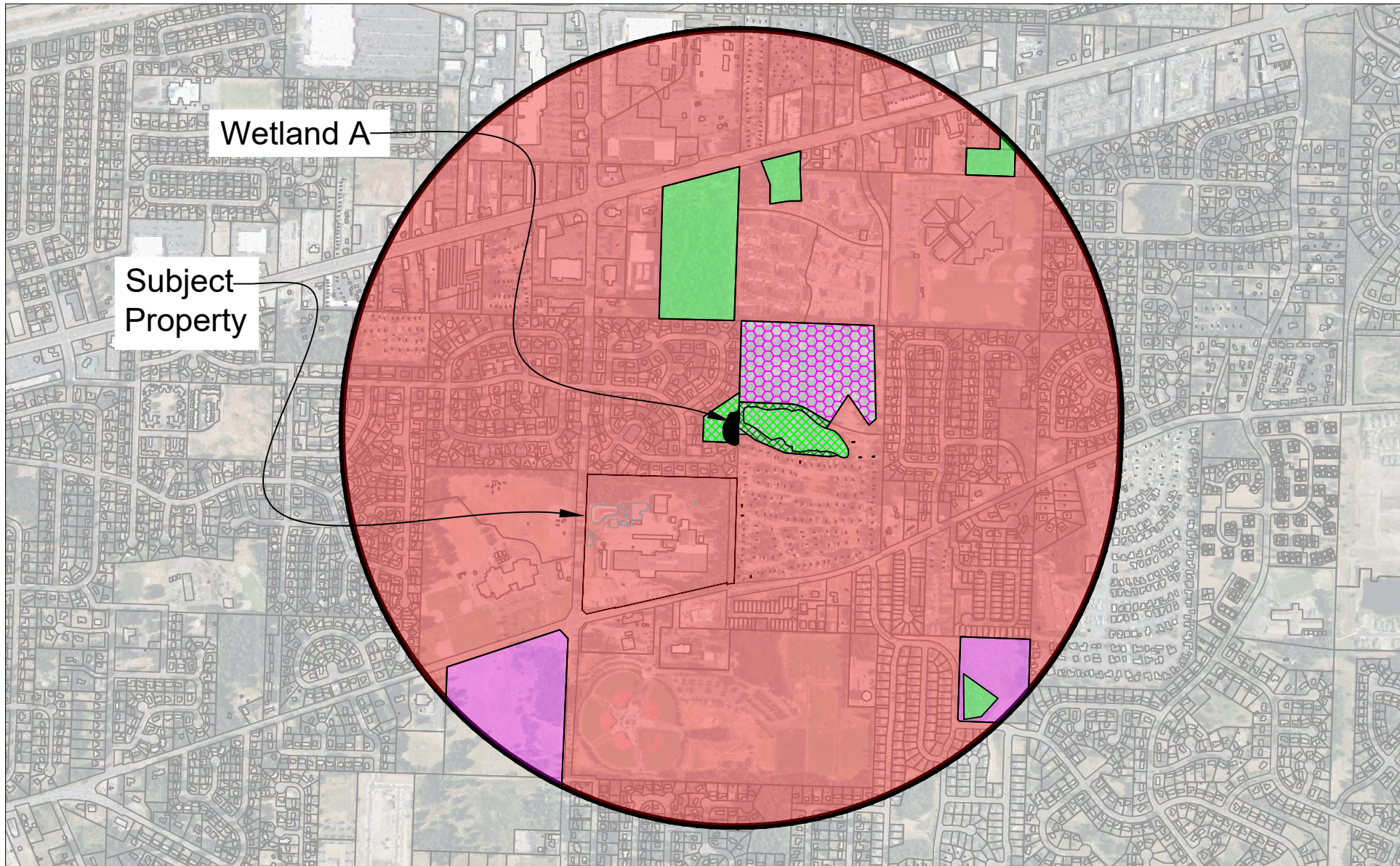
Figure 6
 Ostrom
 Property
 Potential
 Pollutants



Scale: 1" = 120'



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Accessible Habitat (374,832 sf, 8.6 acres, 1%)



Accessible Moderate to Low Intensity Land Use (847,009 sf, 52 acres, 6.2%)



Relatively Undisturbed Habitat & Accessible Habitat (1,397,012 sf, 32 cres, 3.9%)



Low to Moderate Intensity Land Use + accessible Low to Moderate (3,482,488 sf, 80 acres, 9.6%)



High Intensity Land Use (32,678,259 sf, 750 acres, 90%)



1km Polygon (36,241,997 sf, 832 acres)

H2.1: $1\% + 6.2\% / 2 = 4.1\%$ (0 points)

H2.2: $3.9\% + 9.6\% / 2 = 8.7\%$ (0 points)

H2.3: High Intensity = 90% (-2 points)

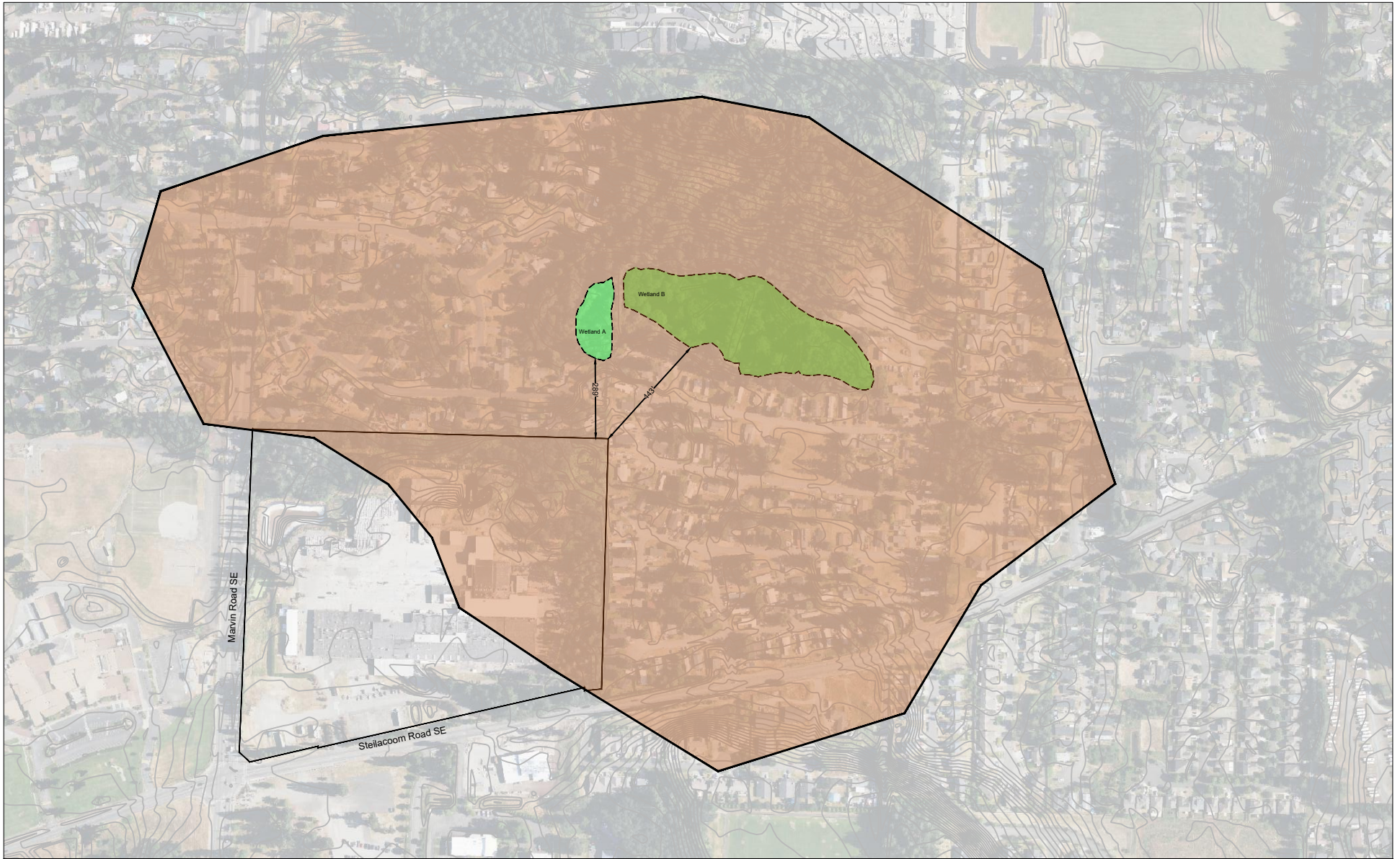
Figure 7
Ostrom Property
1 KM Polygon



Scale: 1"= 1200'

0 1200'

8 September 2022



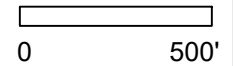

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 Contributing Basin (>100x)

Figure 8
 Ostrom
 Property
 Contributing
 Basin



Scale: 1" = 500'



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APPENDIX A

Photographs



Photo 1. Building in mushroom farm facility



Photo 2. Northeastern portion of the subject property



Photo 3. Abandoned buildings and settling pond



Photo 4. Stacks of mushroom farm pallets



Photo 5. Abandoned buildings and stacks of large pallets



Photo 6. Mowed grass, oaks to right, pallets in background



Photo 7. Internal roads and buildings, grass on compressed rock



Photo 8. Compressed rock covered by grass



Photo 9. Internal gravel road, abandoned buildings, and grass



Photo 10. Mowed grass on compressed gravel



Photo 11. Mowed grass and Lombardi poplars (NL)



Photo 12. Mushroom trays and stacks of mushroom pallets



Photos 13. Settling pond



Photo 14. Settling pond



Photo 15. Internal roads and buildings



Photo 16. Internal roads and buildings



Photo 17. Mushroom farm mechanical building



Photo 18. Partially demolished building



Photo 19. Abandoned buildings and facility



Photo 20. Abandoned building



Photo 21. Existing shed adjacent to small oak stand (FACU)



Photo 22. Cluster of mature oaks (FACU) around existing shed



Photo 23. Mature oaks (FACU) along northern fence line



Photo 24. North central property fence line



Photo 25. Oak (FACU) stand with some Douglas fir (FACU)



Photo 26. Grass on compressed rock, Lombardi poplars (NL)



Photo 27. Thick poison hemlock (FAC) dominates areas



Photo 28. Dense thicket of Himalayan blackberry (FAC)



Photo 29. Himalayan blackberry (FAC) along eastern fence line



Photo 30. Poison Hemlock (*Conium maculatum*; FAC)



Photo 31. Poison hemlock (FAC) & Himalayan blackberry (FAC)



Photo 32. Poison hemlock (FAC) & Himalayan blackberry (FAC)



Photo 33. Poison hemlock (FAC) & Himalayan blackberry (FAC) Photo 34. Poison hemlock (FAC) & Himalayan blackberry (FAC)



Photo 35. Understory of Himalayan blackberry (FAC) Photo 36. Dense Himalayan blackberry (FAC) in understory



Photo 37. Field bindweed (*Convolvulus arvensis*; FACU) Photo 38. Pacific madrone (*Arbutus menziesii*; FACU)



Photo 39. Purple fox glove (*Digitalis purpurea*; FACU) Photo 40. English ivy (FACU), Douglas fir (FACU)



Photo 41. English ivy (*Hedera helix*; FACU)



Photo 42. Oak stand (FACU) with little understory vegetation



Photo 43. Trailing blackberry (*Rubus ursinus*; FACU)



Photo 44. Tall Oregon grape (*Mahonia aquifolium*; FACU) berries



Photo 45. Tall Oregon grape (*Mahonia aquifolium*; FACU)



Photo 46. Serviceberry (*Amelanchier alnifolia*; FACU)



Photo 47. Golden clover (*Trifolium aureum*; NL)



Photo 48. Serviceberry (*Amelanchier alnifolia*; FACU)



Photo 49. Rye grass (*Lolium perenne*; FAC)



Photo 50. Red clover (*Trifolium pratense*; FACU)



Photo 51. Tall Oregon grape (*Mahonia aquifolium*; FACU)



Photo 52. English Laurel (*Prunus laurocerasus*; FACU)

APPENDIX B

Thurston County Geodata

Soils



APPENDIX C

Thurston County Geodata

Wetlands & Streams

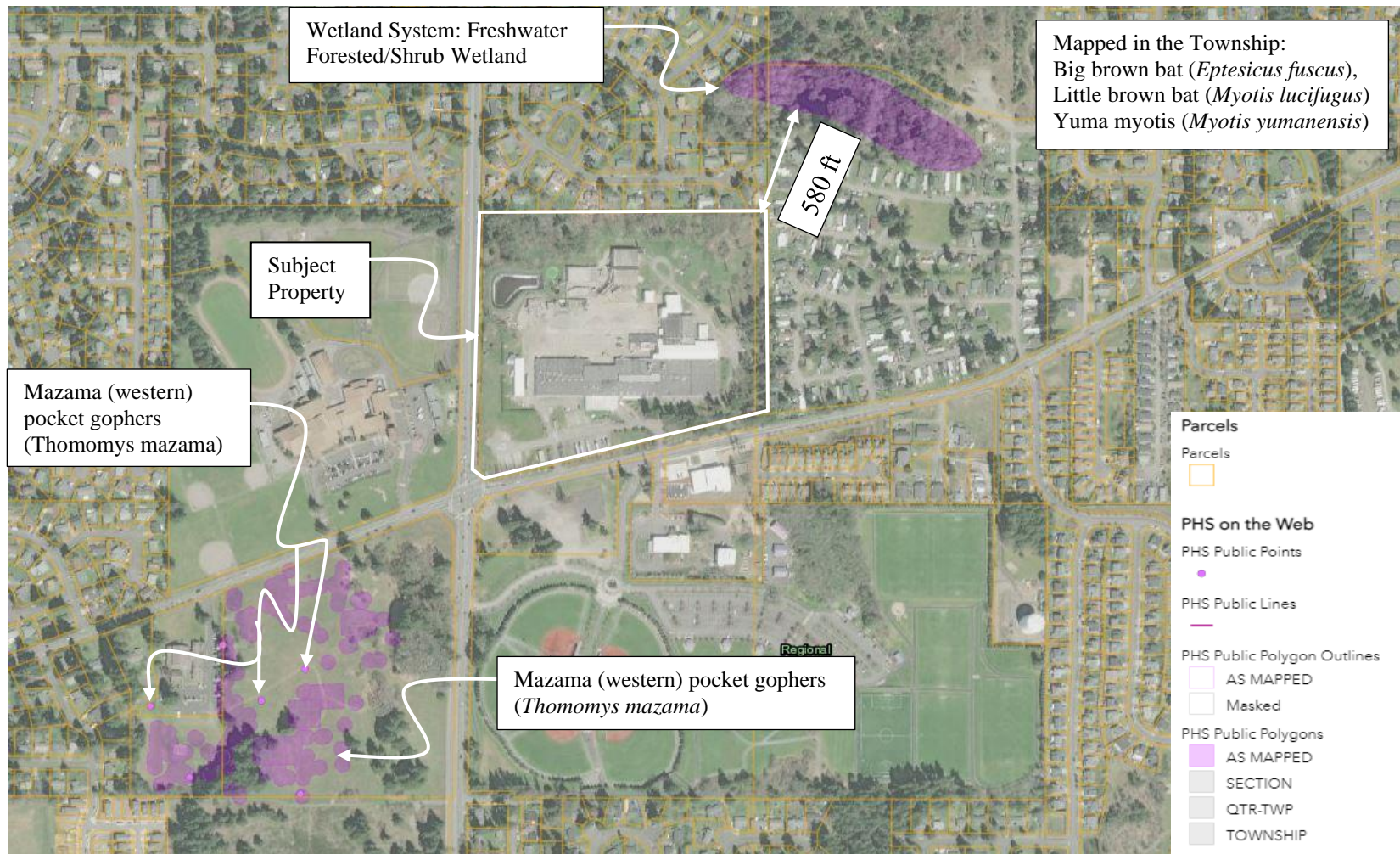


APPENDIX D

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

Priority Habitats and Species (PHS)

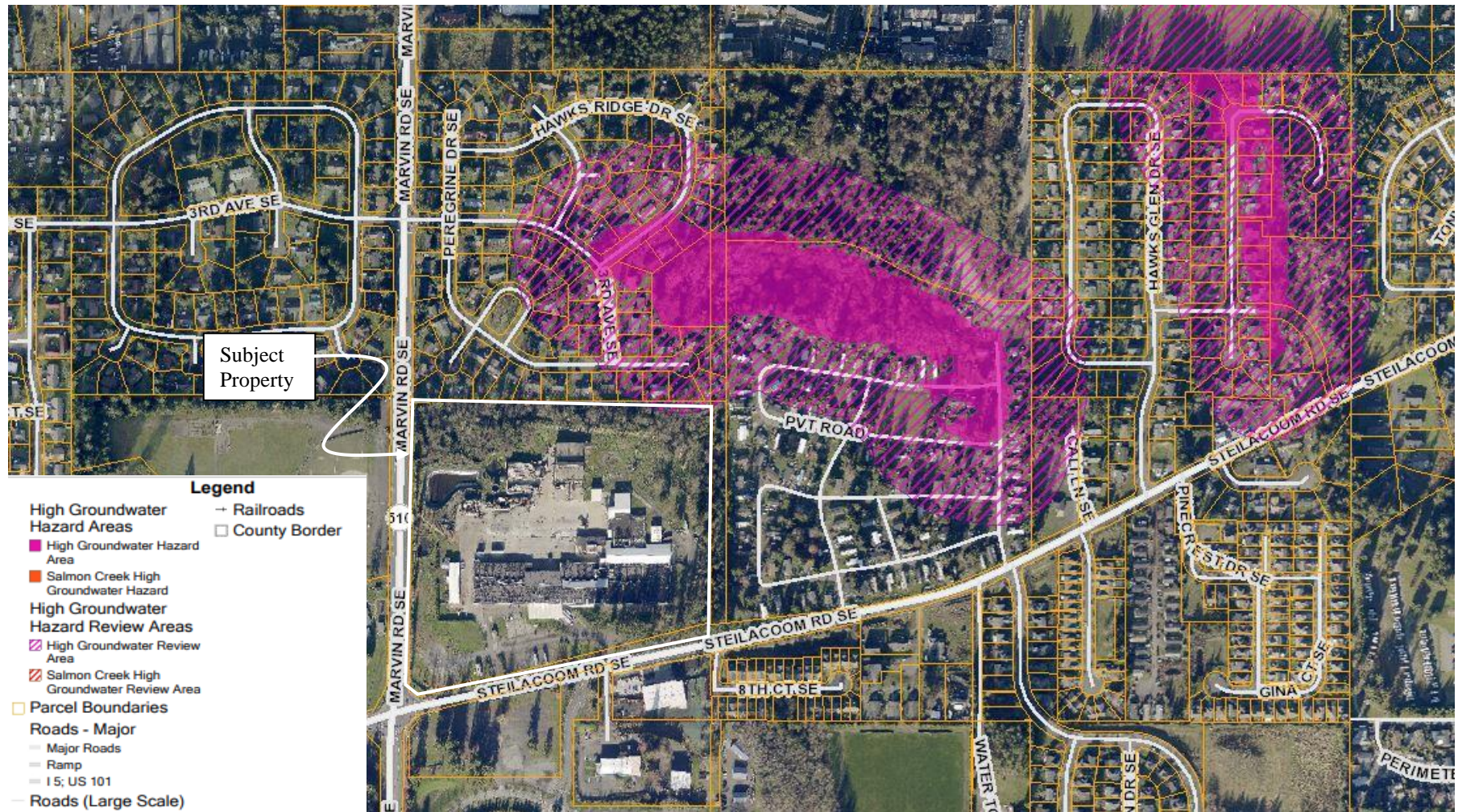
Database



APPENDIX E

Thurston County Geodata

High Groundwater Hazard Area



APPENDIX F

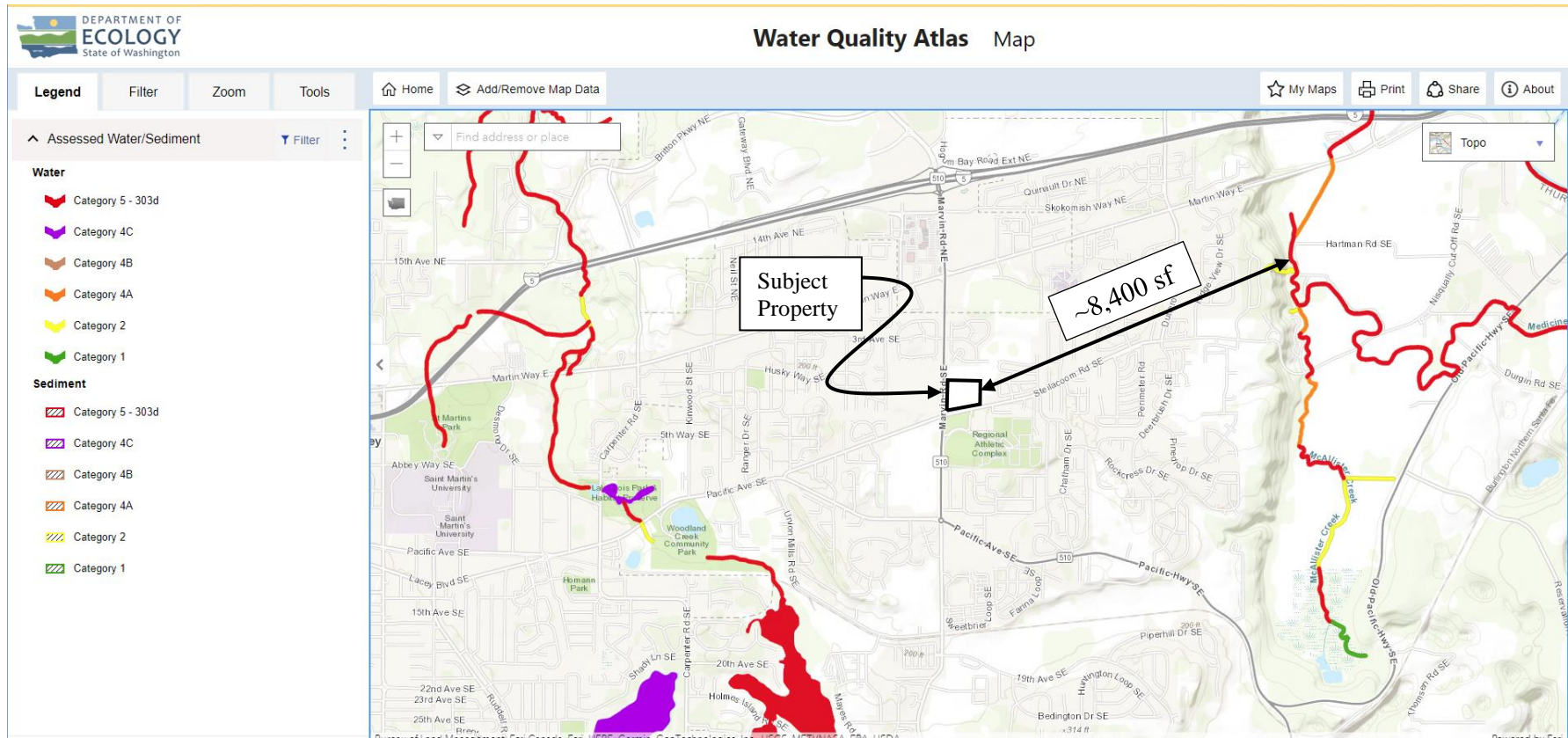
FEMA Floodplains



APPENDIX G

Clean Water Act

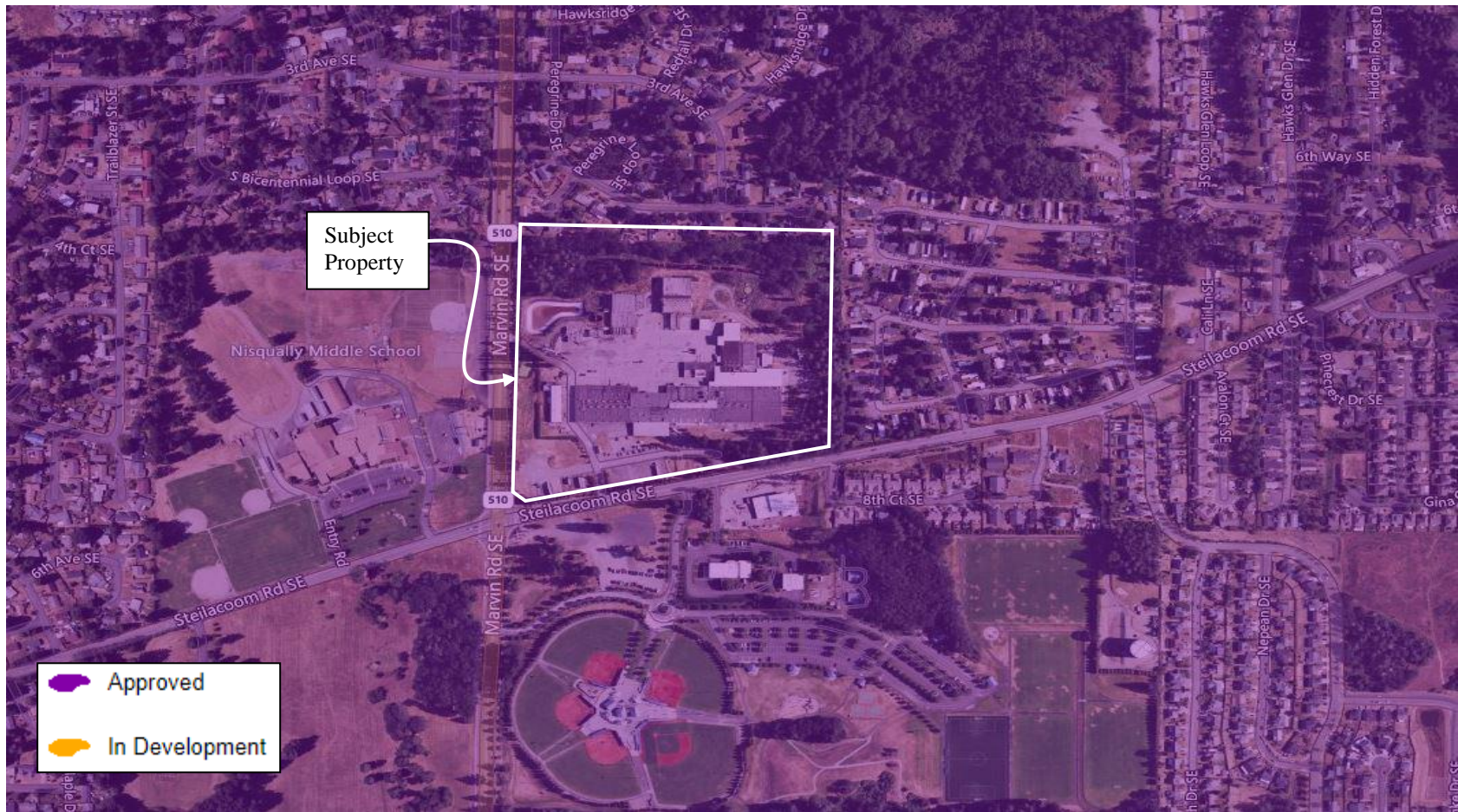
303 (d) List



APPENDIX H

Total Maximum Daily Load

(TMDL)



APPENDIX J

Wetland Rating Form

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: 25-Apr-22

Rated by Curtis Wambach Trained by Ecology? Yes No Date of training Continual

HGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? Yes No

NOTE: Form is not complete with out the figures requested (figures can be combined).

Source of base aerial photo/map Google Earth and Autodesk

OVERALL WETLAND CATEGORY III (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
- X** **Category III** - Total score = 16 - 19
- Category IV** - Total score = 9 - 15

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

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>List appropriate rating (H, M, L)</i>				
Site Potential	M	M	L	
Landscape Potential	M	M	L	
Value	H	H	M	Total
Score Based on Ratings	7	7	4	18

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	

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	Figure 5
Hydroperiods	D 1.4, H 1.2	Figure 5
Location of outlet (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	Figure 2
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	D 2.2, D 5.2	Figure 6
Map of the contributing basin	D 4.3, D 5.3	Figure 8
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	Figure 7
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	Appendix E
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	Appendix F

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 dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to another figure</i>)	S 4.1	
Boundary of area within 150 ft of the wetland (<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	

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.*

NOTES and FIELD OBSERVATIONS:
slope + depressional = depressional

DEPRESSIONAL AND FLATS WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?		
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).	points = 3	3
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	points = 2	
<input type="checkbox"/> Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
<input type="checkbox"/> Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 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	points = 5	5
Wetland has persistent, ungrazed, plants > 1/2 of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/10 of area	points = 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	points = 4	2
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
Total for D 1		10

Add the points in the boxes above

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

D 2.0. Does the landscape have the potential to support the water quality function of the site?		
D 2.1. Does the wetland unit receive stormwater discharges?		
	Yes = 1 No = 0	1
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		2

Add the points in the boxes above

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

D 3.0. Is the water quality improvement provided by the site valuable to society?		
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	2
Total for D 3		3

Add the points in the boxes above

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

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	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	4
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: <i>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.</i>		
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	3
<input checked="" type="checkbox"/> Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
<input type="checkbox"/> 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: <i>Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</i>		
<input type="checkbox"/> The area of the basin is less than 10 times the area of the unit	points = 5	0
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	
<input type="checkbox"/> Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	7

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

D 5.0. Does the landscape have the potential to support hydrologic function of the site?		
D 5.1. Does the wetland unit 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	1
Total for D 5	Add the points in the boxes above	1

Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 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):		
<input type="checkbox"/> Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	2
<input type="checkbox"/> Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
<input type="checkbox"/> Flooding from groundwater is an issue in the sub-basin.	points = 1	
<input type="checkbox"/> 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	
<input type="checkbox"/> 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: 2 - 4 = H 1 = M 0 = L *Record the rating on the first page*

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

1

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 types 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**

0

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft². *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

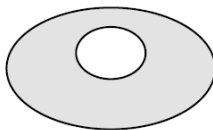
1

H 1.4. Interspersion of habitats

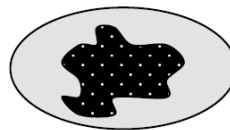
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always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



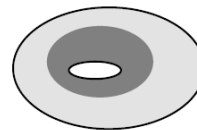
None = 0 points



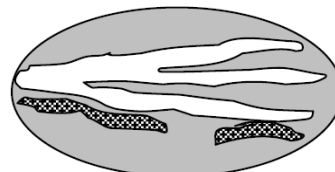
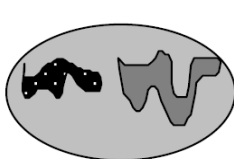
Low = 1 point



Moderate = 2 points



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



0

<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></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) <input checked="" type="checkbox"/> Standing snags (dbh > 4 in) within the wetland <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or 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 (> 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 type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) 	3
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Total for H 1	Add the points in the boxes above	5
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Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page

H 2.0. Does the landscape have the potential to support the habitat function of the site?

<p>H 2.1 Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). <i>Calculate:</i></p> <p>1 % undisturbed habitat + (6.2 % moderate & low intensity land uses / 2) = 4.1%</p> <p>If total accessible habitat is:</p> <ul style="list-style-type: none"> > 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 < 10 % of 1 km Polygon points = 0 	0
---	---

<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. <i>Calculate:</i></p> <p>3.9 % undisturbed habitat + (9.6 % moderate & low intensity land uses / 2) = 8.7%</p> <ul style="list-style-type: none"> Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0 	0
--	---

<p>H 2.3 Land use intensity in 1 km Polygon: If</p> <ul style="list-style-type: none"> > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1km Polygon is high intensity points = 0 	-2
--	----

Total for H 2	Add the points in the boxes above	-2
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Rating of Landscape Potential If Score is: 4 - 6 = H 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></p> <p>Site meets ANY of the following criteria: points = 2</p> <ul style="list-style-type: none"> <input type="checkbox"/> It has 3 or more priority habitats within 100 m (see next page) <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) <input type="checkbox"/> It is mapped as a location for an individual WDFW priority species <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources <input type="checkbox"/> 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 <p>Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1</p> <p>Site does not meet any of the criteria above points = 0</p>	1
---	---

Rating of Value If Score is: 2 = H 1 = M 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. List the category when the appropriate criteria are met.</i>	
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands? <input type="checkbox"/> The dominant water regime is tidal, <input type="checkbox"/> Vegetated, and <input type="checkbox"/> With a salinity greater than 0.5 ppt <input type="checkbox"/> Yes - Go to SC 1.1 <input checked="" type="checkbox"/> No = Not an estuarine wetland	
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? <input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No - Go to SC 1.2	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? <input type="checkbox"/> 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) <input type="checkbox"/> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. <input type="checkbox"/> The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. <input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? <input type="checkbox"/> Yes - Go to SC 2.2 <input checked="" type="checkbox"/> No - Go to SC 2.3	
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? <input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No = Not WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf <input type="checkbox"/> Yes - Contact WNHP/WDNR and to SC 2.4 <input checked="" type="checkbox"/> No = Not WHCV	
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? <input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No = Not WHCV	
SC 3.0. Bogs	
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? <input checked="" type="checkbox"/> Yes - Go to SC 3.3 <input checked="" type="checkbox"/> No - Go to SC 3.2	
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? <input checked="" type="checkbox"/> Yes - Go to SC 3.3 <input type="checkbox"/> No = Is not a bog	
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? <input type="checkbox"/> Yes = Is a Category I bog <input checked="" type="checkbox"/> No - Go to SC 3.4 NOTE: 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? <input type="checkbox"/> Yes = Is a Category I bog <input checked="" type="checkbox"/> No = Is not a bog	

<p>SC 4.0. Forested Wetlands Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. <input type="checkbox"/> Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). <p style="text-align: right;"><input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No = Not a forested wetland for this section</p>	
<p>SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <input type="checkbox"/> The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks <input type="checkbox"/> The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>) <p style="text-align: right;"><input type="checkbox"/> Yes - Go to SC 5.1 <input checked="" type="checkbox"/> No = Not a wetland in a coastal lagoon</p> <p>SC 5.1. Does the wetland meet all of the following three conditions?</p> <ul style="list-style-type: none"> <input type="checkbox"/> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). <input type="checkbox"/> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. <input type="checkbox"/> The wetland is larger than 1/10 ac (4350 ft²) <p style="text-align: right;"><input type="checkbox"/> Yes = Category I <input checked="" type="checkbox"/> No = Category II</p>	
<p>SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i> In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Long Beach Peninsula: Lands west of SR 103 <input type="checkbox"/> Grayland-Westport: Lands west of SR 105 <input type="checkbox"/> Ocean Shores-Copalis: Lands west of SR 115 and SR 109 <p style="text-align: right;"><input type="checkbox"/> Yes - Go to SC 6.1 <input type="checkbox"/> No = Not an interdunal wetland for rating</p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? <input type="checkbox"/> Yes = Category I <input type="checkbox"/> No - Go to SC 6.2</p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? <input type="checkbox"/> Yes = Category II <input type="checkbox"/> No - Go to SC 6.3</p> <p>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? <input type="checkbox"/> Yes = Category III <input type="checkbox"/> No = Category IV</p>	
<p>Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form</p>	