

# Altmann Oliver Associates, LLC

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# AOA

Environmental  
Planning &  
Landscape  
Architecture



October 30, 2020

AOA-6240

Nhu Finney  
nhufinney@gmail.com

SUBJECT: **Wetland and Stream Delineation for Parcels 563150-0685, -0681, and -0678, Kenmore, WA**

Dear Nhu:

On June 18, 2020 I conducted a wetland and stream reconnaissance on the undeveloped subject property utilizing the methodology outlined in the May 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*.

One wetland (Wetland A) and one stream (Stream 1) were identified and delineated on the property during the field investigation. The delineated boundary of the wetland and the ordinary high water (OHW) of the stream was subsequently plotted by GPS. **Attachment A** contains data sheets prepared for a representative location in both the wetland and upland. These data sheets document the vegetation, soils, and hydrology information that aided in the wetland boundary delineation.

## **Wetland A and Stream 1**

Wetland A is located throughout the northern portion of the site and consists of a Slope Hydrogeomorphic (HGM) class that generally drains down from south to north. Runoff from the wetland enters Stream 1 which flows within a deeply incised channel from south to north through the eastern portion of the site. Soils within the wetland were typically saturated to the surface at the time of the delineation.

Vegetation within Wetland A and the riparian corridor of Stream 1 consisted primarily of a deciduous forested plant community that included red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), salmonberry (*Rubus spectabilis*), sword fern (*Polystichum munitum*), giant horsetail (*Equisetum telmateia*), lady fern (*Athyrium filix-femina*), and stinging nettle (*Urtica dioica*). .

Wetland A was recently rated as part of a previous reconnaissance conducted by Acre Environmental Consulting LLC and was determined to be a Category III wetland with 6 Habitat Points (**Attachment B**). Category III wetlands with 6 Habitat Points require a standard 110-foot buffer per KMC 18.55.300.C.4.

Stream 1 is considered a Type F stream with salmonid potential and requires a standard 100-foot buffer from the delineated OHW per KMC 18.55.400.F.

### **Development Potential**

Since the site contains three separate tax parcels, you could potentially develop three residential structures on the property using the City of Kenmore's Reasonable Use Exception and Boundary Line Adjustment provisions. Most of the site except for the southwest portion is encumbered by the wetland, stream, and associated buffers and development of the property will need to occur in the southwest portion of the property as far from the critical areas as possible. Based on these encumbrances it may be more realistic to consider one or possibly two structures in this area.

The first step as part of a development proposal will be to obtain a topographic survey of the site that includes the wetland and stream delineation. Assuming geotechnical concurrence with the development, it is my recommendation that the wetland and stream delineation and rating be submitted to the City for approval as early in the development process as possible.

It appears that the access drive to the potential development area will require impacting a small portion of the wetland. Impacting a wetland for a driveway is an allowed alteration in the City of Kenmore if there is no other option. Impacts must be minimized to the extent feasible and compensatory mitigation will be required. Any direct wetland impacts would also require a permit from the US Army Corps of Engineers.

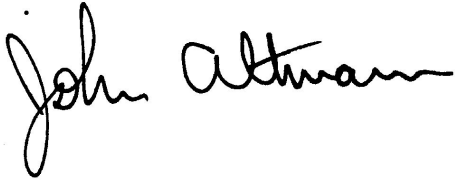
Compensatory mitigation on this site for both unavoidable wetland and buffer impacts can occur through: 1) enhancing degraded wetland and buffer areas through the removal of invasive species and re-planting with native trees and shrubs or 2) purchasing mitigation credits from the recently approved Keller Farm Mitigation Bank.

Nhu Finney  
October 30, 2020  
Page 3

If you have any questions, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

A handwritten signature in black ink that reads "John Altmann". The signature is written in a cursive, flowing style. The first name "John" is written with a large, looped 'J' and a small dot above the 'h'. The last name "Altmann" is written with a capital 'A' and a long, horizontal stroke at the end.

John Altmann  
Ecologist

Attachments



City of Kenmore  
Parcels 563150-0685,  
-0681, and -0678

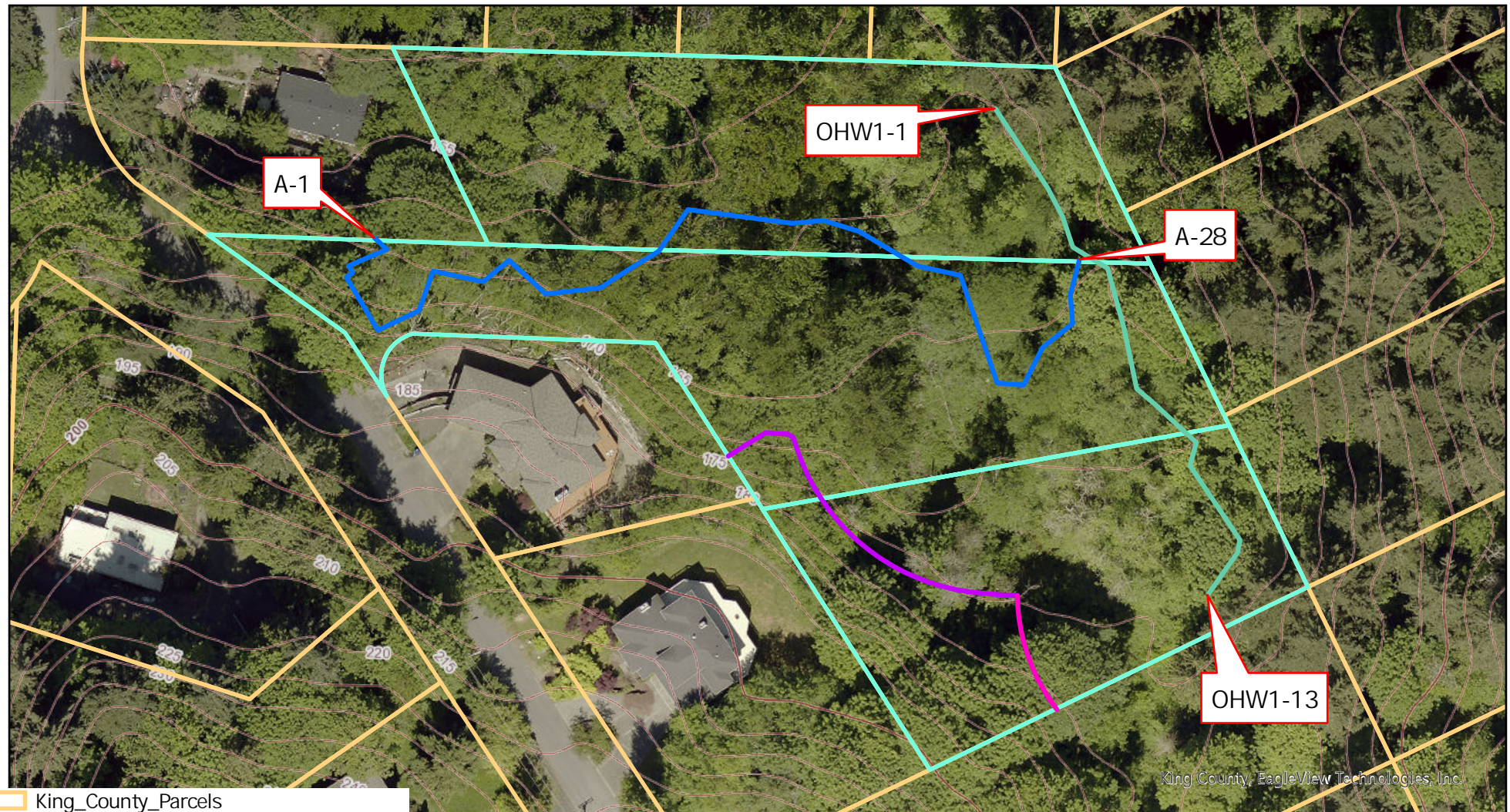
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# Critical Areas Map



- King\_County\_Parcels
- Subject Properties
- Approximate OHW Stream 1 Type F
- Approximate Wetland A Boundary Cat. III
- Approximate 100' Buffer for Stream 1
- Approximate 110' Buffer for Wetland A

0 30 60 120 180 240 US Feet





# **ATTACHMENT A**

## **DATA SHEETS**

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

Project Site: Parcels 563150-0685, -0681, and -0678 City/County: Kenmore/ Sampling Date: 6-18-20  
 Applicant/Owner: Washington State Department of Transportation State: WA Sampling Point: DP#1  
 Investigator(s): John Altmann Section, Township, Range: S13, T26N, R4E  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR): A Lat: 47.7465 Long: -122.23782 Datum: \_\_\_\_\_  
 Soil Map Unit Name: KpD NWI classification: R4SBC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: Located in 8' into Wetland off of A-12			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 8')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Populus balsamifera</u>	100	yes	FAC	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3</u> (A/B)
4. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	100	= Total Cover		
Sapling/Shrub Stratum (Plot size: 8')				Prevalence Index worksheet:
1. <u>Rubus armeniacus</u>	30	yes	FAC	
2. <u>Rubus spectabilis</u>	30	yes	FAC	OBL species _____ x1 = _____
3. _____	_____	_____	_____	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = <u>30</u> , 20% = <u>12</u>	60	= Total Cover		UPL species _____ x5 = _____
Herb Stratum (Plot size: 8')				Column Totals: _____ (A) _____ (B)
1. <u>Athyrium filix-femina</u>	20	yes	FAC	Prevalence Index = B/A = _____
2. <u>Polystichum munitum</u>	20	yes	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. <u>Equisetum telmateia</u>	10	no	FACW	
4. <u>Ranunculus repens</u>	10	no	FAC	
5. <u>Phalaris arundinacea</u>	25	yes	FACW	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>42.5</u> , 20% = <u>17</u>	85	= Total Cover		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum _____				
Remarks:				

Project Site: Parcels 563150-0685,  
-0681, and -0678

## SOIL

Sampling Point: DP#1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<u>0-15</u>	<u>10 YR 3/1</u>	<u>60</u>	<u>10 YR 4/3</u>	<u>40</u>	_____	_____	<u>Clay</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<sup>1</sup>Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

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

- |  |  |
|--|--|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)                                |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)                            |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b> |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" type="checkbox"/> Depleted Matrix (F3)                 |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                         |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                      |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                          |

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

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

**Restrictive Layer (if present):**

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

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

**Hydric Soils Present?**

Yes ☒ No ☐

Remarks:

## HYDROLOGY

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (2 or more required)

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

**Field Observations:**

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

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface

**Wetland Hydrology Present?** Yes ☒ No ☐

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

Remarks:

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

Project Site: Parcels 563150-0685, -0681, and -0678 City/County: Kenmore/ Sampling Date: 6-18-20  
 Applicant/Owner: Finney State: WA Sampling Point: DP#2  
 Investigator(s): John Altmann Section, Township, Range: S13, T26N, R4E  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR): A Lat: 47.7465 Long: -122.23782 Datum: \_\_\_\_\_  
 Soil Map Unit Name: KpD NWI classification: R4SBC  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Located 8' into upland off of A-12		

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 8')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u><i>Alnus rubra</i></u>	<u>100</u>	<u>yes</u>	<u>FAC</u>	
2. <u><i>Thuja plicata</i></u>	<u>20</u>	<u>no</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	_____	_____	_____	
50% = <u>60</u> , 20% = <u>24</u>	<u>120</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 8')				Prevalence Index worksheet:
1. <u><i>Rubus armeniacus</i></u>	<u>70</u>	<u>yes</u>	<u>FAC</u>	
2. <u><i>Rubus spectabilis</i></u>	<u>10</u>	<u>no</u>	<u>FAC</u>	OBL species _____ x1 = _____
3. _____	_____	_____	_____	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = <u>40</u> , 20% = <u>16</u>	<u>80</u>	= Total Cover		UPL species _____ x5 = _____
Herb Stratum (Plot size: 8')				Column Totals: _____ (A) _____ (B)
1. <u><i>Polystichum munitum</i></u>	<u>40</u>	<u>yes</u>	<u>FACU</u>	Prevalence Index = B/A = _____
2. <u><i>Ranunculus repens</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u>	= Total Cover		
Woody Vine Stratum (Plot size: 8')				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u><i>Rubus ursinus</i></u>	<u>20</u>	<u>yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u>	= Total Cover		
% Bare Ground in Herb Stratum _____				

Remarks:



Project Site: Parcels 563150-0685,  
-0681, and -0678

## SOIL

Sampling Point: DP#2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<u>0-15</u>	<u>10 YR 4/2</u>	<u>100</u>	_____	_____	_____	_____	<u>gravelly clay</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<sup>1</sup>Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

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

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

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

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

**Restrictive Layer (if present):**

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

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

**Hydric Soils Present?**

Yes ☐ No ☐

Remarks: Likely landslide deposit. No redoximorphic features

## HYDROLOGY

**Wetland Hydrology Indicators:**

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

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

Secondary Indicators (2 or more required)

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

**Field Observations:**

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

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present?  
(includes capillary fringe) Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes ☐ No ☒

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

Remarks: Dry

**Attachment B**  
**Wetland Rating by**  
**Acre Environmental Consulting LLC**

A

### RATING SUMMARY – Western Washington

Name of wetland (or ID #): Transey Wet A Date of site visit: 8.15.19  
 Rated by: E. Wehner Trained by Ecology? X Yes    No Date of training: 8.30.19  
 MGM Class used for rating: Slope Wetland has multiple MGM classes?    Y X N

NOTE: Form is not complete without the figures requested (figures can be combined).  
Source of base aerial photo/map: Kings County Map, Google Earth

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics \_\_\_\_\_)

### 1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 – 27
Category II – Total score = 20 – 22
<b>X</b> Category III – Total score = 16 – 19
Category IV – Total score = 9 – 15

FUNCTION	Improving	Hydrologic	Habitat
	Water Quality	Curb the nonpoint runoff	
Site Potential	H M L	H M L	H GH L
Landscape Potential	H M L	H M L	H M L
Value	H M L	H M L	H M L
Score Based on Ratings	6	5	4
			<b>15</b>

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

- 9 = H<sub>2</sub>H<sub>2</sub>H
- 8 = H<sub>2</sub>H<sub>2</sub>M
- 7 = H<sub>2</sub>H<sub>2</sub>L
- 7 = H<sub>2</sub>M<sub>2</sub>M
- 6 = H<sub>2</sub>M<sub>2</sub>L
- 6 = M<sub>2</sub>M<sub>2</sub>M
- 5 = H<sub>2</sub>L<sub>2</sub>L
- 5 = M<sub>2</sub>M<sub>2</sub>L
- 4 = M<sub>2</sub>L<sub>2</sub>L
- 3 = L<sub>2</sub>L<sub>2</sub>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
Intertidal	I II III IV
None of the above	X

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Rating Form - Effective January 1, 2015

1

Workland, name or number **A**

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

### Depressional Wetlands

Map of site	To answer questions:	Figure
Concave inlet classes	D 3.3, H 1.4	
Hydroperiods	D 3.4, H 1.3	
Location of outlet (can be added to map of hydroperiod)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (as indicated to another figure)	D 2.2, D 5.2	
Map of the surrounding basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undrainable habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 1016-ft listed waters in Utah (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of "Natives for WFLM in which unit is found (from WFLM)"	D 3.3	

### Riverine Wetlands

Map 31	Answer questions:	Figure 8
Geography of the Cape of Good Hope	H 1.1, H 1.4	
Geography of the Cape of Good Hope	H 1.2	
Geography of the Cape of Good Hope	H 1.1	
Geography of the Cape of Good Hope	R 3.4	
Geography of the Cape of Good Hope	R 1.1, R 4.2	
Geography of the Cape of Good Hope	R 4.1	
Geography of the Cape of Good Hope	R 2.2, R 2.3, R 5.2	
Geography of the Cape of Good Hope	H 2.1, H 2.2, H 2.3	
Geography of the Cape of Good Hope	R 3.3	
Geography of the Cape of Good Hope	R 2.4, R 3.3	

## Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Coniferous forest classes		
Plant cover of trees, shrubs, and herbaceous plants	1.1, 1.4, 2.1, 4.1, 5	1.2
Boundary of area within 350 ft of the wetland from the border to another (any)	1.2	1.3
1 km polygon. Area that extends 1 km from stream wetland edge - including polygons for accessible habitat and undisturbed habitat	2.1, 2.2, 4.1, 5	1.3, 1.3.1
Spatial sequence of map of JGAP1 forest waters in basin (from Ecology website)		1.3.3
Screen capture of list of TADs for which it was found (from web)		

Slope Wetlands

Map of	To extract questions:	Figure #
Cowardin plant classes	H1.1, H1.4	1
Hydrophytids	H1.2	1
Plant cover of <i>dense</i> v. <i>open</i> , <i>littoral</i> , and <i>herbaceous</i> plants	S1.3	1
Plant cover of <i>dense</i> , <i>rigid</i> trees, <i>shrubs</i> , and <i>mesic</i> plants (can be added to figure above)	S1.1	1
Boundary of 150 ft buffer (can be added to another figure)	S2.1, S2.1	1
1 km buffer: Area that extends 1 km from outer wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H2.1, H2.3	2
Screened capture of map of 2003 d. Isolated wetlands in beach (from Ecology website)	S1.1, S1.2	3
Screened capture of list of TidalUs per WMA in which unit is found (from web)	S3.1	4

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Rating Term - Effective January 1, 2015

NT

Wetland name or number A

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

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

NO - 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?

NO - 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 subterranean as sheetflow, or in a swale without distinct banks.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these types 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?

NO - 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 A

NO - go to 6

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

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 A

SLOPE WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
5.1.0. Does the site have the potential to improve water quality?	
5.1.1. Characteristics of the average slope of the wetland: (a) 2% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)	
Slope is 1% or less	points = 3
Slope is > 1%-2%	points = 2
Slope is > 2%-5%	points = 1
Slope is greater than 5%	points = 0
5.1.2. The soil is below the surface (or dirt level) is fine clay or more organic (see WQCS definitions: No = 3, No = 0)	0
5.1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. (Note means you have trouble seeing the soil surface (a 75% cover) and litter means not ground or mowed and plants are higher than 6 ft.)	
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 5
Dense, uncut, herbaceous plants > 75% of area	points = 3
Dense, uncut, plants > 5% of area	points = 2
Dense, uncut, herbaceous plants > 5% of area	points = 1
Does not meet any of the criteria above for plants	points = 0
Total for 5.1	4
Rating of Site Potential: If score is: <u>12</u> = H <u>6-11</u> = M <u>0-5</u> = L	Record the rating on the first page
5.2.0. Does the landscape have the potential to support the water quality function of the site?	
5.2.1. H > 10% of the area within 150 ft on the upland side of the wetland is land uses that generate pollution?	1
5.2.2. Are there other sources of pollutants coming from the wetland that are not listed in question 5.2.1?	0
Other sources:	Yes = 1, No = 0
Total for 5.2	1
Rating of Landscape Potential: If score is: <u>1</u> = 2 = M <u>0</u> = L	Record the rating on the first page
5.3.0. Is the water quality improvement provided by the site valuable to society?	
5.3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 2020 list?	Yes = 3, No = 0
5.3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 2020 list.	Yes = 1, No = 0
5.3.3. 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 it within which it is found.	Yes = 2, No = 0
Total for 5.3	2
Rating of Value: If score is: <u>12</u> = H <u>1</u> = M <u>0</u> = L	Record the rating on the first page

The average slope in the wetland is approximately 4%.

Wetland name or number A

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion	
5.4.0. Does the site have the potential to reduce flooding and stream erosion?	
5.4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Storm of plants should be thick enough (usually > 1/2 in.) or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 50% of the area of the wetland	points = 3
At other conditions	points = 0
Rating of Site Potential: If score is: <u>3</u> = M <u>0</u> = L	Record the rating on the first page
5.5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
5.5.1. Is more than 25% of the area within 150 ft upland of wetland in land uses or cover that generate excess surface runoff?	1
Rating of Landscape Potential: If score is: <u>1</u> = M <u>0</u> = L	Record the rating on the first page
5.6.0. Are the hydrologic functions provided by the site valuable to society?	
5.6.1. Distance to the nearest area downstream that has flooding problems: The sub-basin immediately down-gradient of the site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon reefs).	points = 2
Surface flooding problems are in a sub-basin further down-gradient	points = 1
No flooding problems anywhere downstream	points = 0
5.6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2, No = 0
Total for 5.6	0
Rating of Value: If score is: <u>3</u> = H <u>1</u> = M <u>0</u> = L	Record the rating on the first page

NOTES and FIELD OBSERVATIONS:



Wetland name or number A

**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 canopy cover and ground cover. Check the dominant plant classes in the wetland. Up to 10 points may be combined for each class to meet the threshold of 3 or more than 10% of the area if it is smaller than 2.5 ha. Add the number of structures checked.

- ☒ Emergent
- ☒ Shrub (at least 2 m tall, or 30% cover)
- ☒ Forest (at least 2 m tall, or 30% cover)
- ☒ If the unit has a forested class, check if:
  - ☒ The forested class has 3 out of 5 strata (canopy, sub-canopy, shrub, herbaceous, moss/ground cover) that each cover 20% within the forested polygons.

2

H 1.2. Hydroperiod

Check the types of water regimes (hydroperiod) present within the wetland. The water regime has to cover more than 10% of the wetland or 1 ha, or more (see text for descriptions of hydroperiods).

- ☒ Seasonally flooded or inundated
- ☒ Occasionally flooded or inundated
- ☒ Seasonally dry
- ☒ Permanently flowing stream or river (or adjacent to the wetland)
- ☒ Seasonally flowing stream (or adjacent to the wetland)
- ☒ Lake fringe wetland
- ☒ Freshwater tidal wetland

1

H 1.3. Presence of plant species

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

Different groups of rare species can be combined to meet the size threshold and you do not have to note the species. Do not include European mallow, reed, common grass, purple loosestrife, Canadian thistle if you counted > 15 species.

5 - 15 species

< 5 species

points = 2

points = 1

points = 0

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersed among Canadian plant classes (described in H 1.1) or the classes and unvegetated areas (or 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 illegal = 3 points



1

Wetland name or number A

H 1.5. Special habitat features

Check the habitat features that are present in the wetland. The number of checks is the number of points.

- ☒ Large downed, woody debris within the wetland (≥ 4 m diameter and 5 m long).
- ☒ Standing snags (dbh > 4 in) within the wetland
- ☒ Overstory trees are present for at least 5.6 ft (2 m) tall and overhanging (bark extends at least 3.3 ft (1 m) over a stream (or ditch) or, or contiguous with the wetland, for at least 33 ft (10 m)
- ☒ Stable steep banks of fine material that might be used by beaver or muskrat for denning (≥ 30 degree slope) (50% signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)
- ☒ At least 1/2 of the stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)
- ☒ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of weeds)

3

Total for H 1

Rating of Site Potential If score is: 15-18 = H X 1-14 = M 0-6 = L

8

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

H 2.1. Accessible habitat (includes only habitat that directly abuts wetland unit).

Calculate: % undisturbed habitat 2 + 1% moderate and low intensity (and more) 21.0 = 3 %

If total accessible habitat is:

> 2% (33.3%) of 1 km Polygon

20-33% of 1 km Polygon

10-20% of 1 km Polygon

< 10% of 1 km Polygon

points = 3

points = 2

points = 1

points = 0

0

H 2.2. Undisturbed habitat ≥ 1 km Polygon around the wetland

Calculate: % undisturbed habitat 4 + 1% moderate and low intensity (and more) 16.5 = 15.5 %

Undisturbed habitat ≥ 50% of Polygon

Undisturbed habitat 10-50% and in 2-3 patches

Undisturbed habitat 10-50% and > 3 patches

Undisturbed habitat < 10% of 1 km Polygon

Land use intensity in 2 km Polygon: if

≥ 50% of 1 km Polygon is high intensity land use

≥ 50% of 1 km Polygon is high intensity

points = 3

points = 2

points = 1

points = 0

1

Total for H 2

Rating of Landscape Potential If score is: 4-5 = H 1-3 = M X 0 = L

-1

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated.

Site meets ANY of the following criteria:

- ☒ 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 this state or federal list)
- ☒ 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, or a
- ☒ Statewide Master Plan, or in a watershed plan
- ☒ Site has 1 or 2 priority habitats listed on next page) within 100 m

points = 1

points = 0

Site does not meet any of the criteria above

2

Rating of Value If score is: X 1 = H 3 = M 0 = L

Record the rating on the first page

Wetland name or number **A**

## WDFW Priority Habitats

Ecologic 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://www.wa.gov/landuseandconservation/pubs/081217.pdf> or access the list from here: <http://www.wa.gov/landuseandconservation/pubs/081217.pdf>)

Count how many of the following priority habitats are within 3.30 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 Stand:** 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).
- **Berberis Shrub:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Old growth/ Mature forests:** Old growth forest of Cascade crest. — Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings, with at least 1 tree (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, downlogs, numbers of snags, and quantity of large downed material is generally less than that found in old growth; 60-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/ponderosa associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report 159 - 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.
- **Wetland Prairie:** 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 1, 167 - see web link above).
- **Interstream:** The combination of physical, biological, and chemical processes and conditions that interact to provide important life history requirements for in-stream fish and wildlife resources.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include: Lateral Nourishment, Dunes Coast Scarping, and Puget Sound Shoreline. (Full descriptions of features 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 solid rock, ice, or other geological formations and is large enough to contain a human.
- **Cliff:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogeneous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, and/or sedimentary rock, including riprap slides and more talings. May be associated with cliffs.
- **Shrub and Log:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity development/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 0.5 ft (15 cm) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

Wetland Rating System for Western WA 2014 Update  
Rating Form - Effective January 1, 2015

15

Wetland name or number **A**

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<p>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</p> <p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal.</li> <li>— Vegetated and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul>	<p>Yes - Go to SC 1.1</p> <p>No - Not an estuarine wetland</p>
<p><b>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, National Wetlands Reserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-99-151.3?</b></p> <p>Yes = Category I No = Go to SC 1.2</p>	<p>Cat. I</p>
<p><b>SC 1.2. Is the wetland unit, at least 1 ac in size and meets at least two of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— 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 growing, see page 25))</li> <li>— At least 5% of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or an grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p>Yes = Category I No = Category II</p>	<p>Cat. I</p> <p>Cat. II</p>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p><b>SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value?</b></p> <p>Yes - Go to SC 2.2 No - Go to SC 2.3</p> <p><b>SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?</b></p> <p>Yes = Category I No = Not a WHCV</p> <p><b>SC 2.3. Is the wetland in a designated temporary flood plain that contains a National Heritage wetland?</b></p> <p>Yes = Category I No = Not a WHCV</p> <p><b>SC 2.4. Was WDNR identified the wetland within the S/TR as a Wetland of High Conservation Value (WHCV) on their website?</b></p> <p>Yes = Category I No = Not a WHCV</p>	<p>Cat. I</p>
<p><b>SC 3.0. Bog</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bog? Use the key below. If you answer YES you will need to rate the wetland based on its functions.</p> <p><b>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that accumulate more than the size 32 in of the soil profile?</b></p> <p>Yes - Go to SC 3.2 No - Go to SC 3.3</p> <p><b>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 32 in deep over bedrock, or an impermeable horizon such as clay or volcanic ash, or that are floating on water or peat?</b></p> <p>Yes - Go to SC 3.3 No - Go to SC 3.4</p> <p><b>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level?</b></p> <p>Yes - Is a Category I bog No - Is a Category II bog</p> <p><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 5 ft in depth. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p><b>SC 3.4. Is an area with peats or mucks forested by 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?</b></p> <p>Yes - Is a Category I bog No - Is not a bog</p>	<p>Cat. I</p>

Wetland Rating System for Western WA 2014 Update  
Rating Form - Effective January 1, 2015

16

Wetland name or number **A**

**SC 4.0. Forested Wetlands**

Does the wetland have at least 1200±200±25% of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will also need to rate the wetland based on its functions.

- 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/ha (200 trees/ha) that are at least 100 years old and have a diameter at breast height (DBH) of 32 in (81 cm) or more.
- Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old and the species that make up the canopy have an average diameter (dbh) exceeding 8 in (20 cm).

Yes = Category I No = Not a forested wetland for this section

**SC 5.0. Wetlands in Coastal Lagoons**

Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?

- The wetland lies in a depression adjacent to marine waters that is windy or partially separated from marine waters by sandbars, gravel banks, shingle, or, less frequently, rocks.
- 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 (waves, tide-surge, or near the ocean).
- Yes - Go to SC 5.1 No = Not a wetland in a coastal lagoon
- Does the wetland meet all of the following three conditions?
  - Yes - Go to SC 5.1 No = Not a wetland in a coastal lagoon
  - The wetland is relatively undisturbed (has no diking, ditches, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).
  - At least 5% of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or unmowed grassland.
  - The wetland is larger than 1/2 ac (4356 ft<sup>2</sup>)

Yes = Category I No = Category II

**SC 6.0. Intertidal Wetlands**

Is the wetland west of the 1285 line (also called the Western boundary of Upland Community or WUBC)? If your answer yes you will also need to rate the wetland based on its habitat functions.

In practical terms that means the following geographic areas:

- Long Beach Peninsula: lands west of SR 103
- Graysland Wetland: lands west of SR 105
- Dungeness Spit: lands west of SR 115 and SR 310
- Yes - Go to SC 6.1 No = Not an intertidal wetland for rating

SC 6.1 Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates A, B, C, or M, LM) for the three aspects of functionality?

Yes = Category I No = Go to SC 6.2

SC 6.2 Is the wetland 1 ac or larger, or is it a mosaic of wetlands that is 1 ac or larger?

Yes = Category II No = Go to SC 6.3

SC 6.3 Is the unit between 0.1 and 1 ac, or is it a mosaic of wetlands that is between 0.1 and 1 ac?

Yes = Category III No = Category IV

Category of wetland based on Special Characteristics  
If you answered No for all types, enter "Not Applicable" on Summary Form

Cat. I	Cat. I
Cat. II	Cat. II
Cat. III	Cat. III
Cat. IV	Cat. IV

Wetland name or number **A**

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Map measurements used to determine answers for H2.0.  
1km area  
Moderate & low intensity land use (LU)  
Accessible moderate & low intensity LU  
Relatively undisturbed LU  
Accessable relatively undisturbed LU  
High intensity LU

38,141,998 SF  
5,104,491 SF 13%  
0 SF  
3,299,896 SF 9%  
1,286,717 SF 3%  
29,737,611 SF 76%



Wetland A Rating Unit

Pollution generating areas (typ.)



## RATING ANSWERS FOR WETLAND A

S1.3 Dense, uncut herbaceous plants > 1/2 of the wetland area.

S4.1 Dense, uncut, rigid plants cover < 90% of the area of the wetland.

S2.1 & S5.1 Approximately 26% of the area within 150' of the uphill side of Wetland A is in land use that generates pollutants and excess runoff.

H1.1 & H1.4 The wetland contains scrub-shrub and forested vegetation. The forested class has 3 out of 5 strata that each cover 20% within the forested polygon; and low interspersed.

H1.2 The wetland contains saturated only, and permanently flowing stream, hydroperiods.



SCALE 1" = 200'

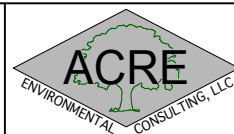


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 L. Emehiser  
 Figure 1 of 4  
 Date: 08.19.2019  
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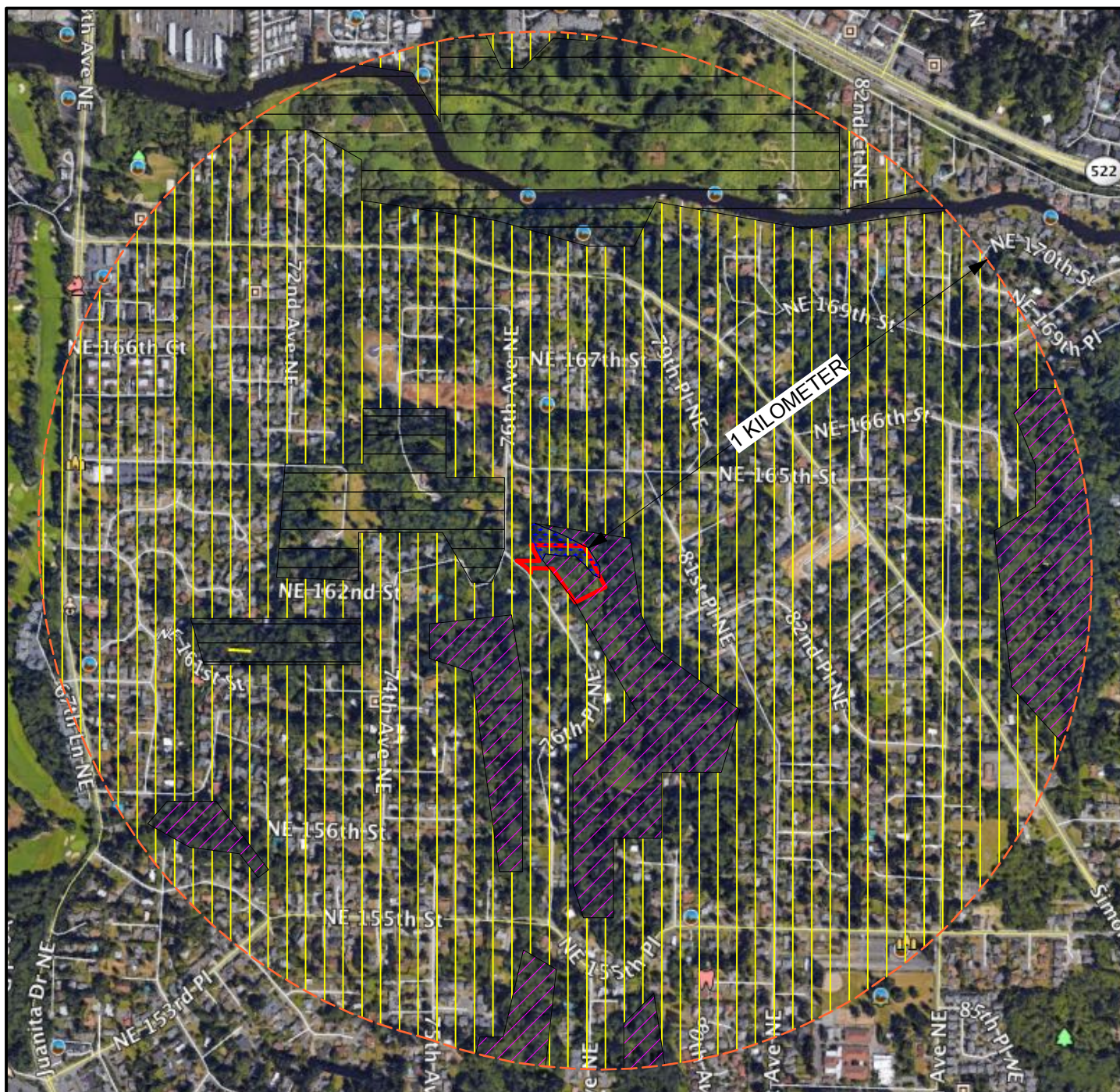
**PREPARED FOR:**  
 Nhu Finney  
 15527 SE 252nd Place  
 Covington, WA 98042

**WETLAND RATING MAP**  
**FINNEY - 76TH PLACE NE**  
**KENMORE, WA**  
 TAX PARCEL NOS. 563150-0685, 563150-0681, & 563150-0678.

**PREPARED BY:**  
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# LEGEND



SUBJECT WETLANDS



HIGH INTENSITY LAND USE



MODERATE, AND LOW INTENSITY LAND USE



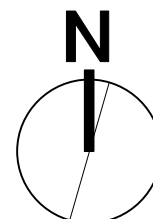
RELATIVELY UNDISTURBED LAND



ONE KILOMETER POLYGON LINE

Note: Land use definitions are derived from H2.0 Table 3 of the Wetland Rating System for Western WA: 2014 Update

This map was used to derive answers for questions H2.1, H2.2, and H2.3.



APPROX. SCALE 1" = 1,000'



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 Rev #:

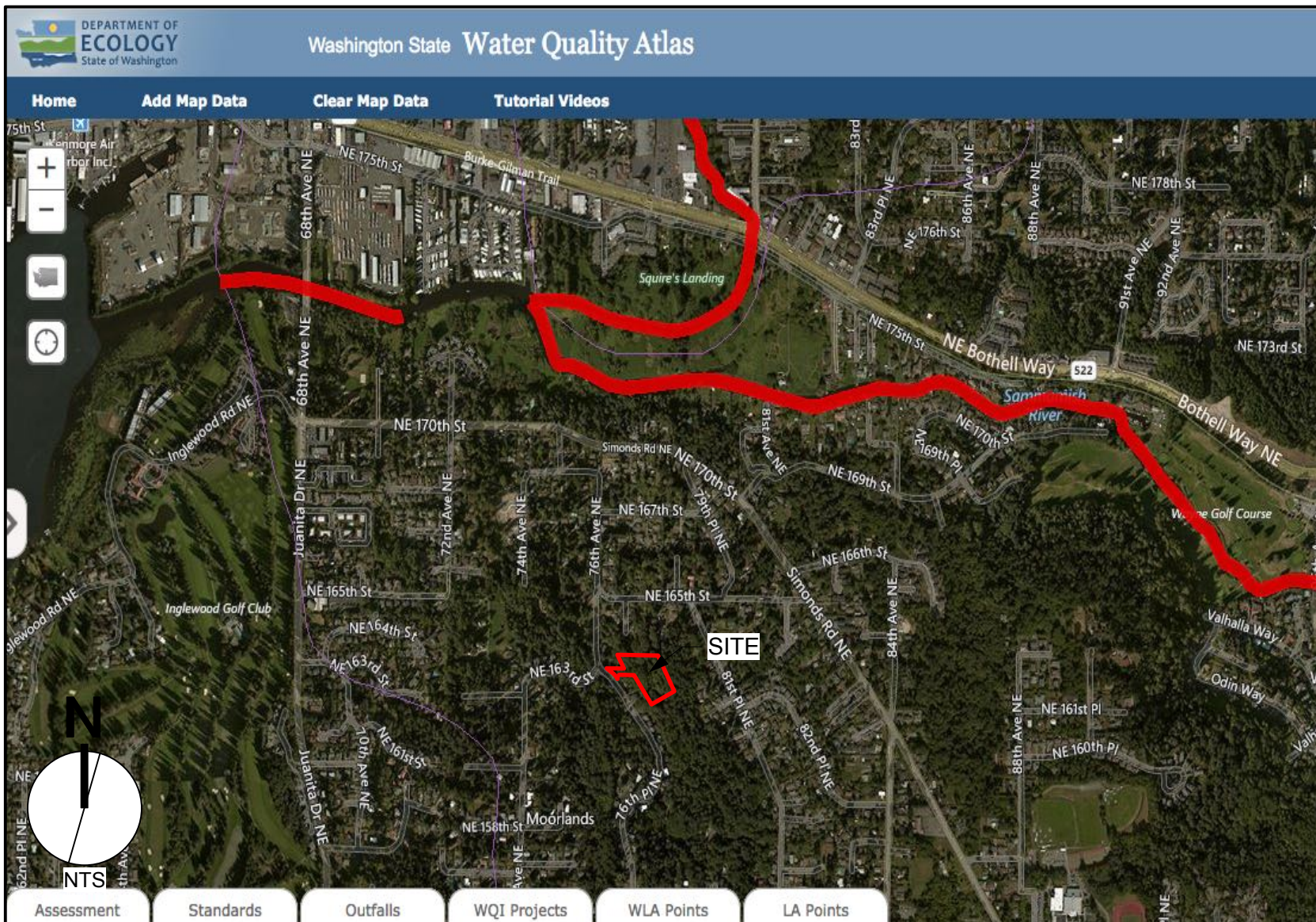
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 15527 SE 252nd Place  
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1KM POLYGON MAP (UNDISTURBED & ACCESIBLE HABITAT)  
 FINNEY - 76TH PLACE NE  
 KENMORE, WA  
 TAX PARCEL NOS. 563150-0685, 563150-0681, & 563150-0678.

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DOE 303(d) Waters in Basin (Screen Capture)  
FINNEY - 76TH PLACE NE  
KENMORE, WA  
TAX PARCEL NOS. 563150-0685, 563150-0681, & 563150-0678.

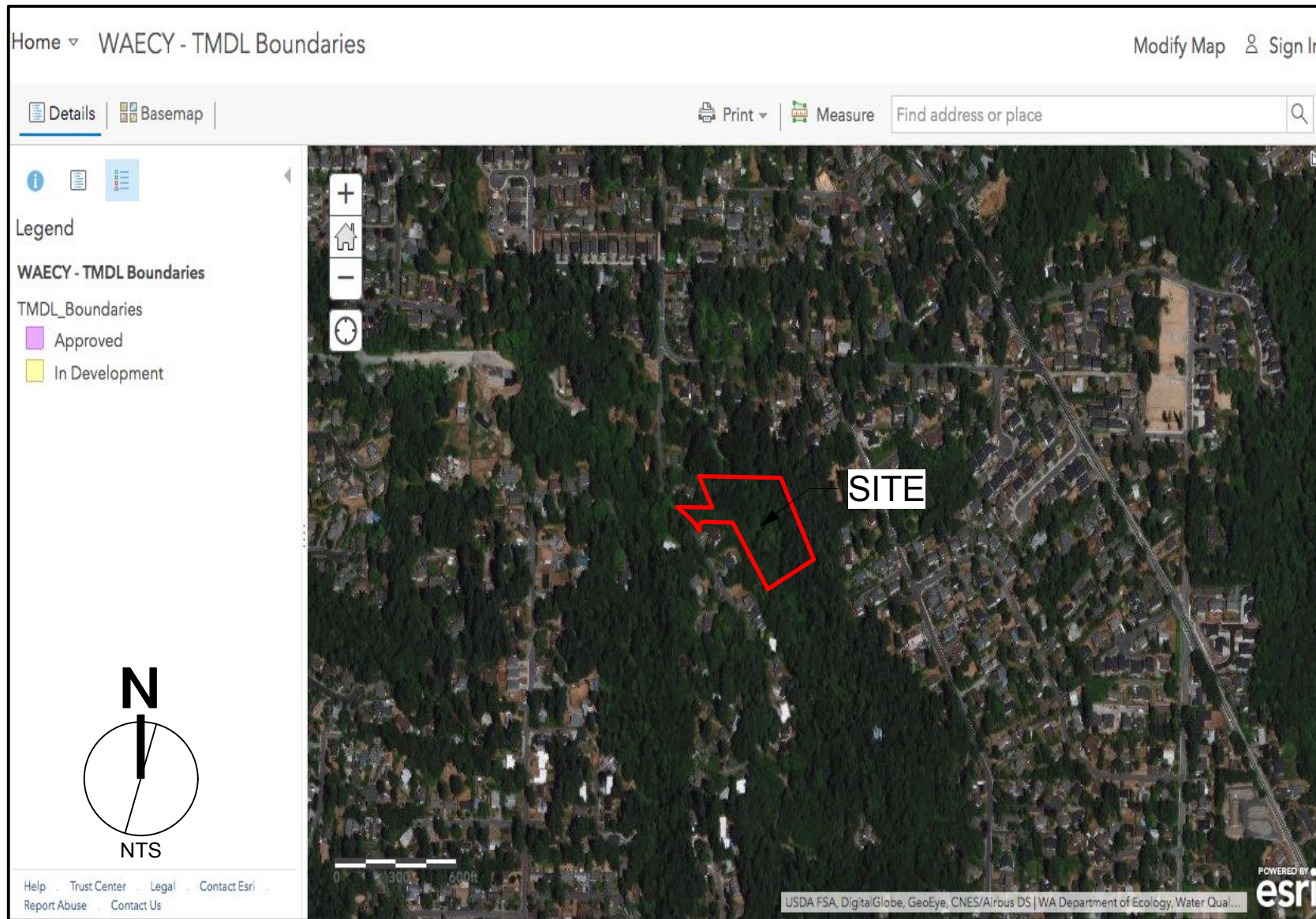
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S3.1 The subject wetland drains directly (within 1 mile) of the Sammamish River listed on the 303(d) list.

S3.2 The subject wetland is located in a basin or sub-basin with an aquatic resource listed on the 303(d) list.





S3.3 Based on the Department of Ecology's TMDL Boundaries webpage, no TMDL's have been identified for Lake Washington or the Sammamish River Basin in which this wetland rating unit is found.



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TMDL'S FOR WR1A 8 (Screen Capture)  
FINNEY - 76TH PLACE NE  
KENMORE, WA  
TAX PARCEL NOS. 563150-0685, 563150-0681, & 563150-0678.

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Figure 4 of 4  
Date: 08.19.2019  
Rev #: