



July 12, 2021

H3D LLC  
Hoa Hoang  
7929 E Mercer Way  
Mercer Island, WA 98040

**RE: Wetland and Stream Determination Report for King County Parcel  
3024059176, Located at 7929 East Mercer Way**

Wetland Resources, Inc. (WRI) performed a site investigation of the property located at 7929 East Mercer Way, Mercer Island, Washington on June 30, 2021. The site investigation included detailed physical inspection within the subject property, and visual inspection from the edge of legal access (rights-of-way and subject property). The purpose of the visit was to identify regulated wetlands, FWHCAs, and watercourses, both on and near the subject property. All other critical areas are outside the scope of this work.

**SITE DESCRIPTION**

The 0.7-acre subject site is in a residential area, located in the southeast area of Mercer Island. A single-family residence and driveway are present on the property. The north and west areas of the site are forested and maintained landscaping is present adjacent to the house. Typical vegetation in the forested areas includes Douglas fir (*Pseudotsuga menziesii*), big leaf maple (*Acer macrophyllum*), beaked hazelnut (*Corylus cornuta*), Himalayan blackberry (*Rubus armeniacus*), dull Oregon grape (*Mahonia nervosa*), and sword fern (*Polystichum munitum*). Topography of the property slopes steeply to the southeast, toward Lake Washington.

**REVIEW OF EXISTING RESOURCES**

Prior to conducting the site reconnaissance, public resource information was reviewed to gather background information on the subject property and the surrounding area in regards to wetlands, streams, and other critical areas. These sources included the included the following:

- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory

The National Wetlands Inventory shows Lake Washington to the southeast of the property. No wetlands or streams are shown on the property.

- USDA/Natural Resources Conservation Service (NRCS) Web Soil Survey

USDA/NRCS Web Soil Survey maps the soils underlying the site Kitsap silt loam 15 to 30 percent slopes.

- WDFW Priority Habitat and Species (PHS) Interactive Map

WDFW PHS Mapper does not identify any priority habitats or species on the parcel. The closest documented habitat/species is Lake Washington, approximately 700 feet to the southeast. The lake is documented as habitat for multiple species of salmonids.

- WDNR Forest Practices Application Mapping Tool (FPAMT)

WA DNR FPAMT shows Lake Washington as a “Shoreline of the State” and does not show any streams within the vicinity of the site.

- City of Mercer Island GIS Portal

This resource does not show any watercourses on the property. The closest watercourse is a Type Np stream located to the northeast of the site and the 60-foot buffer shown does not extend onto the subject parcel. The property is mapped as a Landslide Area and a Protected Slope Area.

## **WETLAND AND STREAM DETERMINATION METHODOLOGY**

The ordinary high water marks (OHWM) of streams and waterbodies, if present, were identified using the methodology described in: *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson et al 2016).

Wetland areas, if present, were determined using the routine determination approach described in the *Corps of Engineers 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)* (U.S. Army Corps of Engineers 2010). Under the routine methodology, the process for making a wetland determination is based on three steps:

- 1.) Examination of the site for hydrophytic vegetation (species present and percent cover);
- 2.) Examination of the site for hydric soils;
- 3.) Determining the presence of wetland hydrology

## **BOUNDARY DETERMINATION FINDINGS**

Vegetation on the site consists of installed ornamental plants within the landscaped areas near the house. The forested areas consist of: Douglas fir (*Pseudotsuga menziesii*), big leaf maple (*Acer macrophyllum*), beaked hazelnut (*Corylus cornuta*), Himalayan blackberry (*Rubus armeniacus*), dull Oregon grape (*Mahonia nervosa*), and sword fern (*Polystichum munitum*). Soils on the site are generally black (10YR 2/1) in the upper layer and dark brown (10YR 4/1) in the sublayer. Soils are typically a sandy loam throughout the profile and no redoximorphic features were observed in sampled soils. Soils were dry during the June 2021 site visit and no indications of prolonged inundation, saturation, or high water table were observed. Dominant vegetation communities were distinctly upland, soils do not meet hydric indicators, and evidence of wetland hydrology was not observed within 20 inches of the ground surface. The site conditions do not meet the criteria for wetlands as described above. No wetlands are present on the site.

During the site investigation, no surface water or flow paths were observed. No evidence of any scoured soils, sorted material, defined bed or bank, debris wracking, or other indications of regularly occurring surface flow were observed. No watercourses are present on the site.

### **USE OF THIS REPORT**

This Wetland and Stream Determination Report has been prepared for H3D, LLC to assist with identifying on-site and nearby critical areas. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

This report conforms to the standard of care employed by ecologists. No other representation or warranty is made concerning the work or this report, and any implied representation or warranty is disclaimed.

*Wetland Resources, Inc.*



Meryl Kamowski, PWS  
*Senior Ecologist*

Enclosures: Wetland Determination Data Form  
Existing Conditions Map (Sheet 1/1)

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

Project/Site: 7929 E Mercer Way City/County: Mercer Island/King Sampling Date: 6/30/21  
 Applicant/Owner: H3D, LLC State: WA Sampling Point: S1  
 Investigator(s): MK Section, Township, Range: S30, T24, R05E  
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): ~30%  
 Subregion (LRR): LRR A Lat: 47°31'53.57"N Long: 122°13'15.56"W Datum: \_\_\_\_\_  
 Soil Map Unit Name: Kitsap silt loam 15 to 30 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Near toe of steep slope, above driveway.	

### VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: _____)				
1. <u>Pseudotsuga menziesii</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. <u>Acer macrophyllum</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	<u>100</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: _____)				
1. <u>Corylus cornuta</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B)  Prevalence Index = B/A = _____
2. <u>Mahonia nervosa</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Rubus armeniacus</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____	<u>60</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: _____)				
1. <u>Polystichum munitum</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 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.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____	<u>25</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____	_____	= Total Cover		
<b>% Bare Ground in Herb Stratum</b> _____				

Remarks:

**SOIL**

Sampling Point: S1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-4	10YR 2/1	100					SL	
4-18	10YR 3/3	100					SL	

<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.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<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.

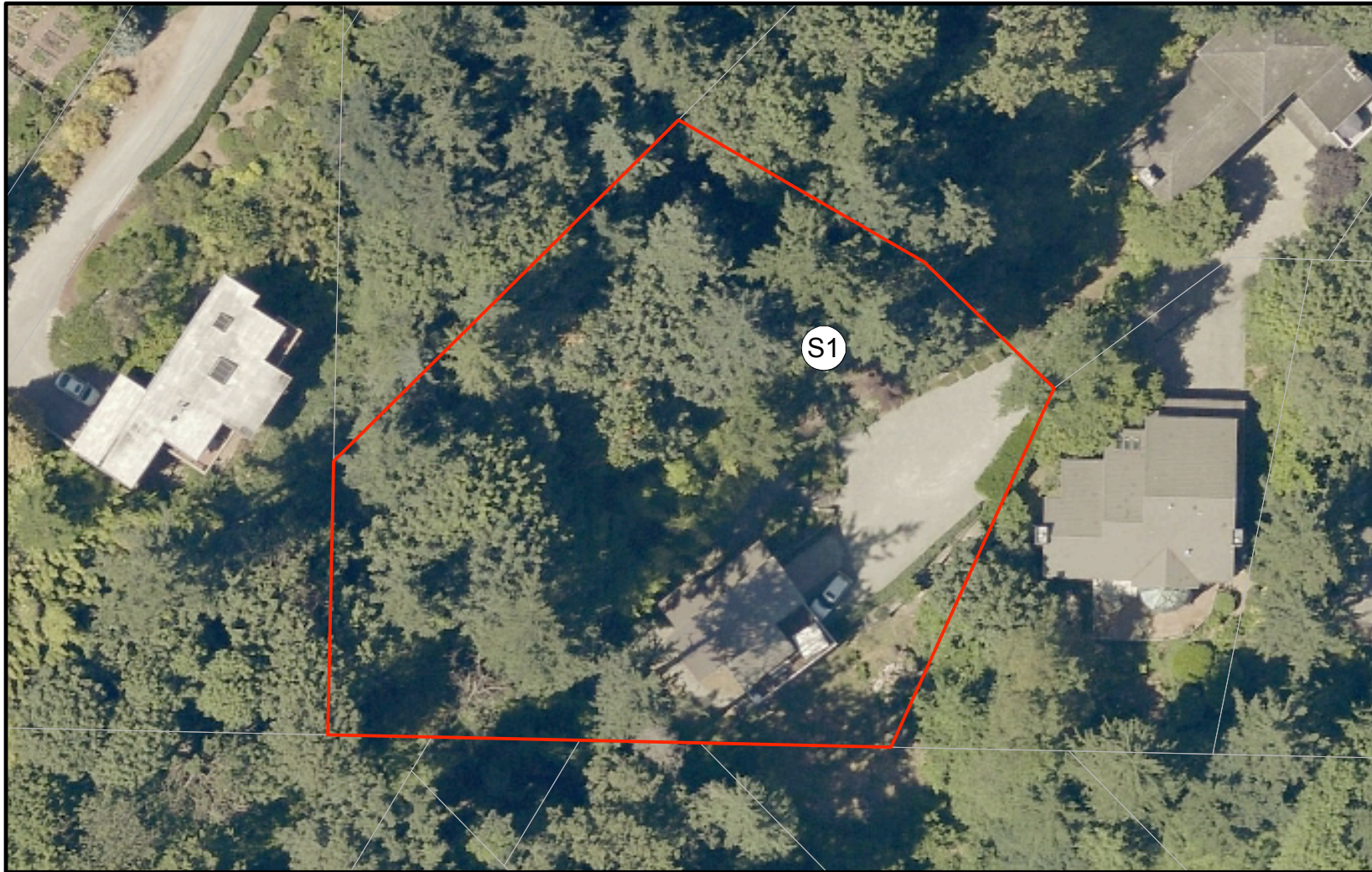
<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <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) (LRR A) <input type="checkbox"/> Frost-Heave Hummocks (D7)
<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?         Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**EXISTING CONDITIONS MAP**  
**H3D LLC - E MERCER WAY**

PORTION OF SECTION , TOWNSHIP N, RANGE E, W.M.



**PLEASE NOTE:** THIS MAP IS **APPROXIMATE** FOR PLANNING AND DISCUSSION PURPOSES ONLY. THIS DOES NOT REPRESENT A SURVEY. THE DATA SITE AND PROPERTY LINE LOCATIONS ARE **APPROXIMATE**. THE LOCATIONS SHOWN ON THIS MAP SHOULD **NOT** BE USED TO CREATE A FORMAL SITE LAYOUT.

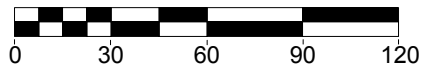
**LEGEND**

 PROPERTY BOUNDARY

 DATA SITE



**Scale 1" = 60'**



*Wetland Resources, Inc.*  
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EXISTING CONDITIONS MAP  
**H3D, LLC - E MERCER WAY**  
CITY OF MERCER ISLAND

H3D, LLC  
Hoa Hoang  
7929 E Mercer Way  
Mercer Island, WA 98040

Sheet 1/1  
WRI #: 21190  
Drawn by: MK  
Date: 07/12/2021