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AOA

Environmental
Planning &
Landscape
Architecture



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AOA-7057

Matt Mamiya
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**SUBJECT: Wetland Reconnaissance for Wellmon Remodel - 6333 – 77th Ave. SE
Parcel 409710-0010, Mercer Island, WA (Revised)**

Dear Matt:

We have updated this report to address the comments presented in the August 14, 2023 memorandum from ESA, peer review consultant for the City of Mercer Island. As part of ESA's review they requested additional information regarding how the site is in compliance with the City's Shoreline Master Program (MICC 19.13), specifically how there will be no net loss of ecological shoreline function associated with an increase in impervious surface.

Background

On February 28, 2023 I conducted a wetland reconnaissance on the subject property located on Lake Washington 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)*. No wetlands or streams were identified on or adjacent to the property during the field investigation. The no wetlands or streams determination has been confirmed by ESA.

The site is currently entirely developed with a single-family residence and associated maintained yard. A rock wall is located along the entire shoreline except for a small gravel beach in the northwest portion of the property in the vicinity of an existing dock.

No intact native plant communities are located on the site and no vegetation was observed below the rock wall within the lake. Plant species on the property are generally limited to scattered ornamental tree and shrub plantings and mowed grass, Himalayan blackberry (*Rubus armeniacus*) and English ivy (*Hedera helix*) to the water's edge. No definitive hydrophytic plant communities were observed on or adjacent to the property.

Borings taken on the site revealed higher chroma non-hydric soils and there was no evidence of ponding or prolonged soil saturation anywhere in the vicinity of the property above the rock wall and beach. **Attachment A** contains a data sheet prepared for a representative location in the upland on the site. This data sheet documents the vegetation, soils, and hydrology information that aided in the no wetland determination for the property.

Shoreline Ecological Function

The City of Mercer Island requires that there is no net loss of ecological shoreline function as part of a proposed project within shoreline jurisdiction.

Per MICC19.13.020.C: No net loss standard and mitigation sequencing. No development shall be approved unless the applicant demonstrates to the code official's satisfaction that the shoreline development will not create a net loss of ecological function in the shorelands.

1. Standards presumed to meet no net loss. When all individual development standards that apply to a development project do not explicitly require a determination of no net loss and the project conforms with all such standards, there is a rebuttable presumption that the project does not create a net loss of ecological function to the shorelands.

2. No net loss plan. Whenever an applicant seeks a variance or conditional use permit or an applicable development standard explicitly requires a determination of no net loss of ecological function, the applicant shall provide the city with a plan that demonstrates the proposed project will not create a net loss in ecological function to the shorelands. The plan shall accomplish no net loss of ecological function by avoiding adverse ecological impacts that are not reasonably necessary to complete the project, minimizing adverse ecological impacts that are reasonably necessary to complete the project, and mitigating or offsetting any adverse impacts to ecological functions or ecosystem-wide processes caused by the project. The code official may require the plan to include reports from qualified professionals with expertise in ecological function. The plan's compliance with the no net loss requirement may be considered through the SEPA process.

i. Off-site mitigation permitted. While on-site mitigation is preferred, off-site mitigation may be permitted at the discretion of the code official.

ii. Demonstration of no net loss supported by a qualified professional. The code official may require any applicant to provide reports by qualified professionals that demonstrate to the code official's satisfaction that the applicant's proposed plan avoids a net loss in ecological function.

Currently the area adjacent to the shoreline is primarily lawn and scattered ornamental plantings that do not provide a significant functional benefit to the shoreline. The area does not provide significant functional habitat or stormwater filtration. Although there will be an increase in impervious surface on the site over

existing conditions, this new impervious surface will occur away from the shoreline and outside of the 50-foot setback from the Ordinary High Water.

As mitigation for the increased impervious surface, a shoreline enhancement plan has been prepared by ANR Landscape Design. The planting plan has been designed to increase the habitat value of the area adjacent to the shoreline by increasing the plant species and structural diversity over existing conditions. Native vegetation would be planted directly adjacent to the bulkhead to provide some natural shade and cover adjacent to the lake edge. The plantings will also contribute detritus and other desirable allochthonous inputs into the aquatic environment.

In addition, the native plantings should also increase stormwater functions through infiltration and pollutant removal.

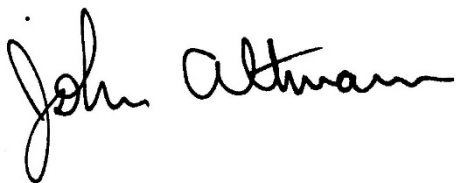
Conclusion

No wetlands were identified on or immediately adjacent to the site. This determination is based on a field investigation during which no definitive hydrophytic plant communities, hydric soils, or evidence of wetland hydrology were observed. In addition, the proposed project includes a shoreline planting plan that will increase the habitat and infiltration functions of the area adjacent to the shoreline over current conditions.

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.

John Altmann
Ecologist

Attachment



Typical view of shoreline looking south.

Datasheet Map



King County, EagleView Technologies, Inc.

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 3/2/2023

Notes:



King County

ATTACHMENT A

DATA SHEETS

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

Project Site: Parcel 409710-0010 City/County: Mercer Island/ Sampling Date: 2-28-23
 Applicant/Owner: Mamiya State: WA Sampling Point: DP#1
 Investigator(s): John Altmann, Dain Altmann Section, Township, Range: S24, T24N, R4E
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 47.54595 Long: -122.23632 Datum: _____
 Soil Map Unit Name: KpB NWI classification: _____
 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 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"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Upland Plot, see map for location.					

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: 8)																				
1. <u>Rubus armeniacus</u>	15	yes	FAC																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = 7.5, 20% = 3	15	= Total Cover																		
Herb Stratum (Plot size: 8)																				
1. <u>UNID grass</u>	100	yes	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = 50, 20% = 20	100	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____																				

Hydrophytic Vegetation Indicators:

1 – Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

5 - Wetland Non-Vascular Plants¹

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes No

Remarks: Vegetation mowed lawn with mowed Himalayan blackberry. Use Soils and Hydrology for wetland determination.

SOIL

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 ¹	Loc ²		
0-15	<u>10YR2/2</u>	<u>100</u>	_____	_____	_____	_____	<u>GSL</u>	<u>gravelly sandy loam</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
¹ Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<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)					
Restrictive Layer (if present):					Hydric Soils Present?			
Type: _____					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Depth (inches): _____								
Remarks: No redoximorphic features								

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-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
			<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
			<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
			<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
Field Observations:			Wetland Hydrology Present?		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: dry					