

AQUATICA

Environmental Consulting, LLC
PO Box 308
Duvall, Washington 98019

October 26, 2017

#17-312

Mr. Mike Walsh, Principal
Terrene Homes
2630 116th AVE NE, Ste 200
Bellevue, WA 98004

REFERENCE: Wetland Reconnaissance
SUBJECT: Parcel #1246700141, Kirkland/Redmond Area

Dear Mike:

On October 26, 2017, I visited the 2.4-acre parcel located at 10201 134th Avenue NE (**Figure 1**), to evaluate the property and surrounding area for wetlands and streams.

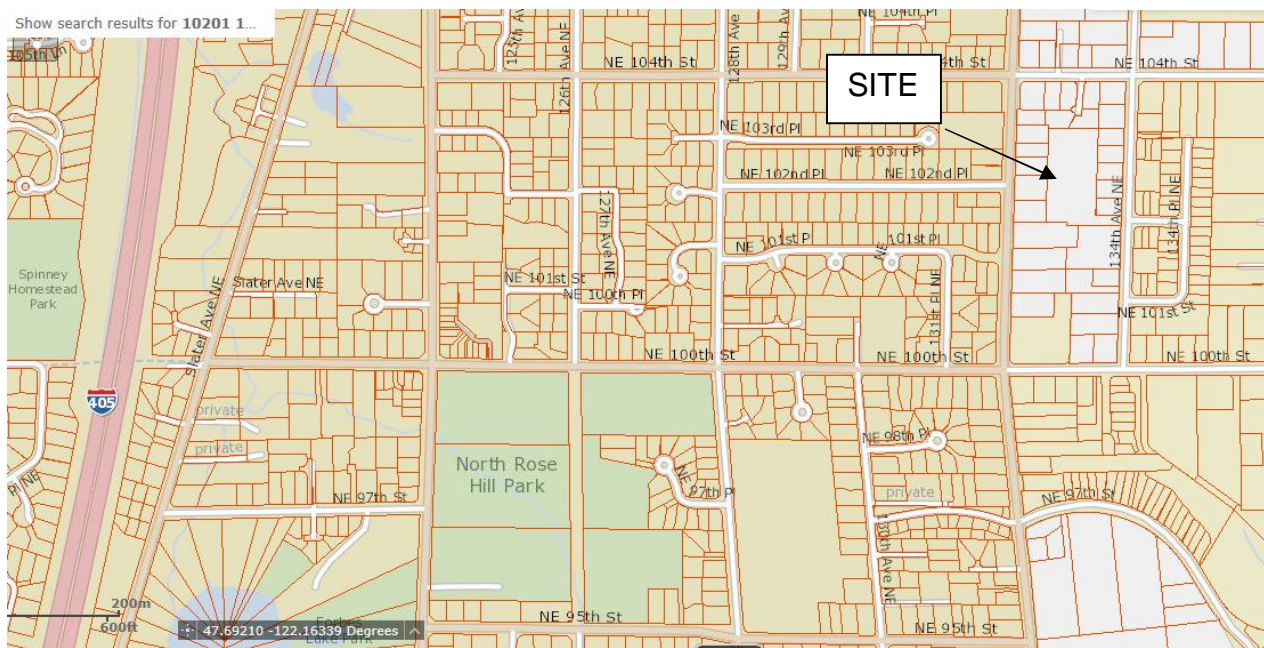


Figure 1. Vicinity Map (Source: King County 2017)

Prior to the site visit, background information reviewed included weather data, the King County iMAP and the Natural Resources Conservation Service (NRCS) soil maps.

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After an unusually dry summer, the Seattle area has had a wet fall. September had three times the average rainfall for the month, and as of the date of this site visit, October had already had almost a half an inch more rainfall than what is usually recorded for the month.

iMAP, does not depict any wetlands or streams on the subject property (**Figure 2**). The NRCS has mapped the subject property and the surrounding area as Alderwood sandy, gravelly loam, 0-8 percent slopes. Alderwood soils are typically upland soils although may contain inclusions of small areas of hydric soils in depressions and drainageways not included at the mapped scale.



Figure 2. King County iMAP (Source: King County 2017)

The subject property is located within an area of single family houses, which surround the property on all sides. The property has been maintained as lawn, with a few scattered western red cedar (*Thuja plicata*) and Douglas fir (*Pseudotsuga menziesii*) trees. The lawn is mowed and is made up of common

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lawn grasses such as bentgrass (*Agrostis stolonifera.*), rye grass (*Lolium perenne*) with cat's ear (*Hypochaeris radicata*) common in the lawn areas. The soil was not hydric, and was observed to be a 10YR 4/3 sandy loam. No evidence of wetland hydrology was observed on the property. There was no evidence of wetlands on or near the subject property. Data from a sample plot from one of the lower elevation portions of the lawn is attached.

There is a roadside ditch along 134th Avenue NE, that crosses a small portion of the property. This ditch was reviewed north of the property and does not appear to convey natural waters, but rather runoff from developed areas. The bottom of the ditch was predominantly vegetated and there was little sorting of substrate materials. Despite recent heavy rainfall there was no water in the ditch. This ditch appears to function as a stormwater conveyance, and not as a stream.

Should you have any questions, please call me at (425) 802-8988.

Sincerely,

Aquatica Environmental Consulting, LLC

A handwritten signature in black ink, appearing to read "Teresa Opolka". The signature is written in a cursive, flowing style.

Teresa Opolka
Wetland Ecologist, PWS

Attachment

ATTACHMENT 10

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

Project/Site: 1246700141 City/County: Redmond/King Sampling Date: 10/26/17
 Applicant/Owner: Terrene Homes State: WA Sampling Point: DP#1
 Investigator(s): T. Opolka Section, Township, Range: SW 34/26/5
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): none Slope (%): <5
 Subregion (LRR): A Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Alderwood sandy gravelly loam, 0-8% slopes NWI classification: upland lawn

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? N Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? N (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 _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks: <p style="text-align: center; font-size: 1.2em;">abnormally wet year</p>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>15'rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
<u>0</u> = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>6'dia</u>)					
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
2. _____	_____	_____	_____	OBL species _____ x 1 = _____	
3. _____	_____	_____	_____	FACW species _____ x 2 = _____	
4. _____	_____	_____	_____	FAC species _____ x 3 = _____	
5. _____	_____	_____	_____	FACU species _____ x 4 = _____	
<u>0</u> = Total Cover				UPL species _____ x 5 = _____	
Herb Stratum (Plot size: <u>6'rad</u>)					
1. <u>Hypochaeris radicata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Column Totals: _____ (A) _____ (B)	
2. <u>Agrostis stolonifera</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
3. <u>Lolium perenne</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
4. _____	_____	_____	_____		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
5. _____	_____	_____	_____		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
6. _____	_____	_____	_____		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
7. _____	_____	_____	_____		<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
8. _____	_____	_____	_____		<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
9. _____	_____	_____	_____		<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
10. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
11. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
<u>100</u> = Total Cover					
Woody Vine Stratum (Plot size: <u>6' rad.</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0</u> = Total Cover					
% Bare Ground in Herb Stratum <u>0</u>					
Remarks:					

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		
0-7	10YR4/3	100					sandy	
7-15	10YR4/4	100					sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

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

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (**except MLRA 1**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

- Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (**LRR A**)
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): _____
 Saturation Present? Yes _____ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks: