J. S. Jones and Associates, Inc.

Critical Area Study

of the

HGL Investment Properties
102XX 124th Avenue N.E.

Tax Parcel Numbers: 663990-0250
Northeast Quarter of Section 33, Township 26 N, Range 5 E

Prepared for:
HGL Investment Properties
16507 S.E. 4th Ct.
Bellevue, WA 98006
919=961-3155
elinazh@gmail.com

Dated:
October 12, 2015

Prepared by:
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Attachments

Vicinity Map
King County Assessor's Property Information
Routine Field Data Forms
Wetland Assessment Unit Map
City of Kirkland Wetland Rating Forms
National Wetland Inventory
DNR FPARS Map
Adolfson, Kinney Place Approval Let Nov 2002
Wetland Sketch

1.0 Project Description

The applicant, HGL Investment Properties, proposes to short plat the property into two single-family parcels and a sensitive area tract. This wetland assessment has been prepared for the purpose of obtaining land use approval from the City of Kirkland.

2.0 Parcel Identification and Directions

The subject parcel is located in the Northeast quarter of Section 33, Township 26 North, Range 5 East, of the Willamette Meridian. The tax parcel numbers are 936060-3025.

Directions from downtown Kirkland are as follows: head east on NE 85th St.; turn north onto 124th Ave. N.E.; proceed to 10200 block and park on the east side of 124th Ave. N.E. (see attached Vicinity Map).

3.0 Summary of the Methodology

The wetland assessment and delineation were performed using the Routine Determination methodology as described in Part IV, Section D of the Corps of Engineers Wetlands Delineation Manual (USACOE, 1987), the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (USACOE, 2008), and the Washington State Wetlands Identification and Delineation Manual (WA State DOE, 1997). The Routine Determination method was used with considerations for "Problem Areas". The Routine Determination methodology is "used when the project area is small, plant communities are homogeneous, plant community boundaries are abrupt, and the project is not controversial." Soils on-site have been considerably disturbed and the Atypical Situations method was considered. The Atypical Method was not used because the fill material on-site was placed prior to wetland regulations.

The Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region data forms were used for this wetland determination (USACOE, 2008). "The regional supplement is designed for use with the current version of the Corps Manual and all subsequent versions." Where differences in the two documents occur, and there are significant differences, the Regional Supplement takes precedence over the Corps Manual (USACOE, 2008).

The assessment included a review of the City of Kent Wetland Inventory and the DNR FPARS mapping. Two wetland boundaries, flagged series A and B, were delineated for one wetland. Flag series A is the east side of the wetland. Flag series B is the south side of the wetland. The wetland delineated was flagged by Jeffery Jones on October 9, 2015. The wetland boundary was previously delineated and three of the prior wetland flags were found.

4.0 Professional Survey

The wetland flag locations will be surveyed by a licensed land surveyor upon approval of the wetland delineation.

5.0 Site Description

The site is a rectangular 1.4 acre parcel (see Figure 1). The uplands are mixed deciduous-coniferous forest. There have been no changes to the site for at least twenty five years. Historically the site was logged several times 30-100 years ago.

The west half of the site is identified as wetland on the City of Kirkland wetland inventory. USFWS wetland classifications present on and off-site are Palustrine forest (PFO) and scrub/shrub (PSS)(Cowardin, 1979). Red alder snags are present in various stages, which provide food and nesting habitat for a large number of wildlife species.

Single-family residences are located south of the site. 124th Ave. N.E. is located east of the site. The parcels to the north and west are undeveloped.

6.0 Wetland Determination

There is one wetland on the subject properties (see attached data sheets and wetland sketch). The wetland is in the drainage pattern. It is subject to periodic flooding from a seasonal non-fish bearing stream, see attached DNR FPARS map. Standing water is seasonally present. The soils have a black one-chroma "A" horizon that is seasonally saturated. At least 50% of the dominant plant species have a FAC or wetter indicator status.

7.0 Wetland Rating and Buffers

The wetland rates as a Type 2 and is in a primary basin, Forbes Creek. The total point score is 30 (see attached rating form). According to the Kirkland Municipal Code, Chapter 90.45, the wetland buffer requirement is 75 feet.

The wetland was previously rated for the adjoining plat to the south, Kinney Place. It was approved as a Type 2 wetland by Adolfson Associates, Inc. in 2002 (see attached approval letter). The approved buffer a 75-foot buffer. We concur with the rating of a Type 2 wetland and 75-foot buffer.

8.0 Off-Site Stream

A tributary of Forbes Creek is located west and north of the subject property, in the off-site wetland. According to the DNR FPARS water typing map, no streams are mapped in the inventoried wetland. However, city mapping identifies a stream that is probably seasonal and non-fish bearing. Forbes Creek and its' tributaries are a classified as a "primary basin" by the city and have a 75-foot buffer requirement. The stream buffer does not extend beyond the wetland buffer.

9.0 Impacts

No impacts to the wetland, stream or their associated buffers are proposed.

10.0 Authority

This wetland and stream determination is in accordance with Section 404 of the Clean Water Act, the objective of which is to "maintain and restore the chemical, physical, and biological integrity of the waters of the United States" (DOE, 1997). Wetlands are "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (EPA, 40 CFR 230.3 and CE, 33 CFR 328.3)".

11.0 Limitations

Wetland determinations, delineations and buffer sizes are not final until approved by federal, state and local regulatory agencies and jurisdictions. *J. S. Jones and Associates, Inc.* does not guarantee acceptance or approval by regulatory agencies, or that any intended use will be achieved.

12.0 References

Cowardin, Lewis M. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. Jamestown, North Dakota.

Federal Register. 1980. 40 CFR Part 230: Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material. Vol. 45, No. 249, 85352-85353. U.S. Government Printing Office, Washington D.C.

Federal Register. 1982. Title 33: Navigation and Navigable Waters; Chapter II, Regulatory Programs of the Corps of Engineers. Vol. 47, No. 138, p 31810. U.S. Government Printing Office, Washington D.C.

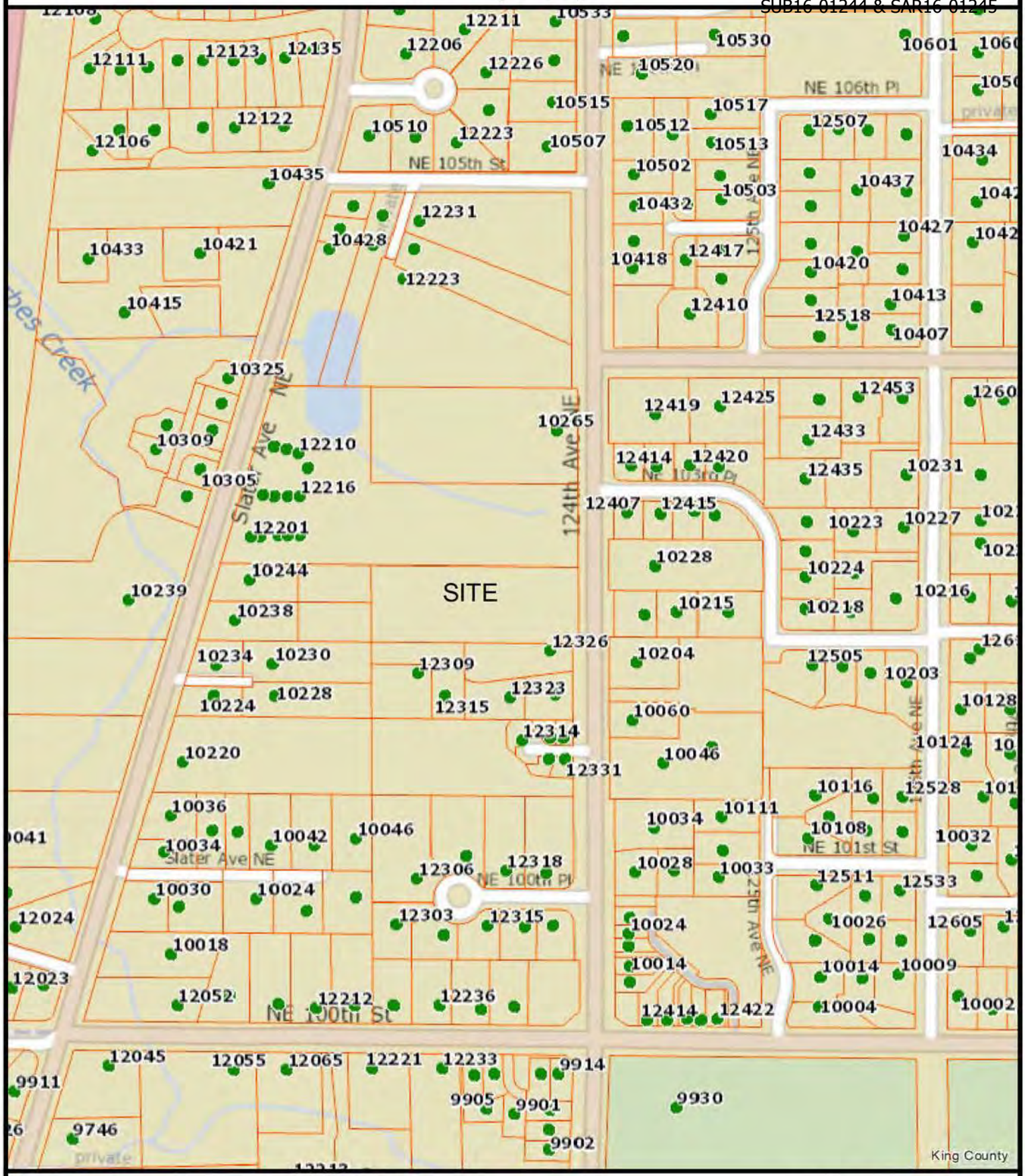
USACOE. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Environmental Laboratory, Vicksberg, MS.

USACOE. 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. U.S. Army Engineer Research and Development Center, Environmental Laboratory, ERDC/EL TR-08-13, Vicksberg, MS.

WA State DOE. 1997. WA State Wetlands Id. and Delineation Manual. Publication # 96-94.

Attachments

Vicinity Map



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PARCEL DATA

Parcel	663990-0250
Name	LARSON ARNOLD N
Site Address	
Residential Area	093-007 (NE Appraisal District)
Property Name	

Jurisdiction	KIRKLAND
Levy Code	1700
Property Type	R
Plat Block / Building Number	
Plat Lot / Unit Number	25
Quarter-Section-Township-Range	SW-33-26-5

Legal Description

PARISHS GARDEN TRS UNREC
PLat Block:
Plat Lot: 25

LAND DATA

Highest & Best Use As If Vacant	SINGLE FAMILY
Highest & Best Use As Improved	(unknown)
Present Use	Vacant(Single-family)
Land SqFt	60,984
Acres	1.40

Percentage Unusable	0
Unbuildable	NO
Restrictive Size Shape	NO
Zoning	RSX 7.2
Water	WATER DISTRICT
Sewer/Septic	(none)
Road Access	PUBLIC
Parking	ADEQUATE
Street Surface	PAVED

Views

Rainier	
Territorial	
Olympics	
Cascades	
Seattle Skyline	
Puget Sound	
Lake Washington	
Lake Sammamish	
Lake/River/Creek	
Other View	

Waterfront

Waterfront Location	
Waterfront Footage	0
Lot Depth Factor	0
Waterfront Bank	
Tide/Shore	
Waterfront Restricted Access	
Waterfront Access Rights	NO
Poor Quality	NO
Proximity Influence	NO

Designations

Historic Site	
Current Use	(none)
Nbr Bldg Sites	
Adjacent to Golf Fairway	NO
Adjacent to Greenbelt	NO
Other Designation	NO
Deed Restrictions	NO
Development Rights Purchased	NO
Easements	NO
Native Growth Protection Easement	NO
DNR Lease	NO

Nuisances

Topography	
Traffic Noise	MODERATE
Airport Noise	
Power Lines	NO
Other Nuisances	YES

Problems

Water Problems	YES
Transportation Concurrency	NO
Other Problems	NO

Environmental

Environmental	YES

Environmental Type	Information Source	Delineation study	Percentage Affected
Wetland	JURISDICTION	N	25

BUILDING

Reference Links:

- King County Tax Links
- Property Tax Advisor
- Washington State Department of Revenue (External link)
- Washington State Board of Tax Appeals (External link)
- Board of Appeals/Equalization
- Districts Report
- iMap
- Recorder's Office
  - Scanned images of surveys and other map documents
  - Scanned images of plats

Notice mailing date: 09/03/2015

TAX ROLL HISTORY

Account	Valued Year	Tax Year	Omit Year	Levy Code	Appraised Land Value ($)	Appraised Imps Value ($)	Appraised Total Value ($)	New Dollars ($)	Taxable Land Value ($)	Taxable Imps Value ($)	Taxable Total Value ($)	Tax Value Reason
663990025004	2015	2016		1700	326,000	0	326,000	0	326,000	0	326,000	
663990025004	2014	2015		1700	307,000	0	307,000	0	307,000	0	307,000	
663990025004	2013	2014		1700	274,000	0	274,000	0	274,000	0	274,000	
663990025004	2012	2013		1700	236,000	0	236,000	0	236,000	0	236,000	
663990025004	2011	2012		1700	424,000	0	424,000	0	424,000	0	424,000	
663990025004	2010	2011		1700	436,000	0	436,000	0	436,000	0	436,000	
663990025004	2009	2010		1700	580,000	0	580,000	0	580,000	0	580,000	
663990025004	2008	2009		1700	683,000	0	683,000	0	683,000	0	683,000	
663990025004	2007	2008		1700	594,000	0	594,000	0	594,000	0	594,000	
663990025004	2006	2007		1700	517,000	0	517,000	0	517,000	0	517,000	
663990025004	2005	2006		1800	193,000	0	193,000	0	193,000	0	193,000	
663990025004	2004	2005		1800	190,000	0	190,000	0	190,000	0	190,000	
663990025004	2003	2004		1800	173,000	0	173,000	0	173,000	0	173,000	
663990025004	2002	2003		1800	173,000	0	173,000	0	173,000	0	173,000	
663990025004	2001	2002		1800	158,000	0	158,000	0	158,000	0	158,000	
663990025004	2000	2001		1800	138,000	0	138,000	0	138,000	0	138,000	
663990025004	1999	2000		1800	123,000	0	123,000	0	123,000	0	123,000	
663990025004	1998	1999		1800	113,000	0	113,000	0	113,000	0	113,000	
663990025004	1997	1998		1801	0	0	0	0	104,000	0	104,000	
663990025004	1996	1997		1801	0	0	0	0	104,000	0	104,000	
663990025004	1994	1995		1801	0	0	0	0	104,000	0	104,000	
663990025004	1992	1993		1801	0	0	0	0	99,300	0	99,300	
663990025004	1990	1991		1801	0	0	0	0	74,100	0	74,100	
663990025004	1988	1989		7360	0	0	0	0	48,600	0	48,600	
663990025004	1986	1987		7360	0	0	0	0	54,000	0	54,000	
663990025004	1984	1985		7360	0	0	0	0	27,400	0	27,400	
663990025004	1982	1983		7360	0	0	0	0	27,400	0	27,400	

SALES HISTORY

Excise Number	Recording Number	Document Date	Sale Price	Seller Name	Buyer Name	Instrument	Sale Reason
2390521	20090515000110	4/6/2009	$0.00	DINKEL MARGARET E	LARSON ARNOLD N	Deed of Personal Representative	Estate Settlement

REVIEW HISTORY

PERMIT HISTORY

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Environmental Solutions

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BY

November 26, 2002

Ms. Dawn Nelson
City of Kirkland
123 Fifth Avenue
Kirkland, Washington 98033

Subject: Kinney Place Wetland Review, 10223 124th Avenue NE, Kirkland, Washington

Dear Dawn:

Adolfson Associates, Inc. (Adolfson) is pleased to present this letter based on our review of materials submitted for the approximately 1.4-acre site located at 10223 124th Avenue NE in Kirkland, Washington. Puget Sound Properties is proposing to develop this parcel. Our review comments are based on wetland regulatory requirements as presented in the City of Kirkland (City) Chapter 90 – Drainage Basin Regulations.

Review of Documents

Adolfson has reviewed the *Wetland Assessment and Delineation Report* prepared by Chad Armour, LLC (Armour) on August 12, 2002. This report presents the results of a wetland study conducted on the subject site on February 15, 2002. Included in the report is a Wetland Field Data Form that Armour used to determine the wetland type. In addition, Adolfson reviewed wetland information that was collected by Armour for projects occurring in the vicinity of Forbes 9 wetland. Armour obtained off-site project information from City files. Information collected by Armour and forwarded to Adolfson includes:

- Letter prepared by Adolfson for Steve Rice Short Plat, dated April 28, 2000;
- Letter prepared by Adolfson for Steve Rice Short Plat, dated April 11, 2000;
- Wetland Report prepared by Ecology Northwest for Pan-Terra, Inc., dated April 25, 1995;
- Wetland Mitigation Plan for Storm Property prepared by Cantrell & Associates, dated February 24, 1995; and
- Wetland Analysis Report prepared by B-Twelve for Kirkland Development Company, dated April 15, 1997.

Site Evaluation

Adolfson biologists Donna Frostholm and Beth Larsen conducted a wetland verification on November 12, 2002 and November 20, 2002. The site slopes down to the west and a single-family house is located in the eastern portion of the property. Much of the site is forest and shrub habitats. Vegetation in the on-site portion of the wetland is dominated by salmonberry, Himalayan blackberry, and lady fern. Much of the

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Tel 206 789 9658 Fax 206 789 9684 adolfson@adolfson

ENCLOSURE 8
SEP05-00022

wetland was saturated to the surface at the time of the site visit. Upland habitats on the site are composed of such species as big-leaf maple, Himalayan blackberry, salmonberry, trailing blackberry, and sword fern.

Review Comments

On-site Wetland. Four flags were used to delineate the wetland boundary on the north side of the property. While Adolfson agrees with the location of wetland boundary flags 1 and 2, we disagree with the wetland boundary line along the easternmost edge of the wetland (wetland boundary flags 3 and 4). It is our opinion that the area east of the delineated boundary, which is dominated by Himalayan blackberry, is wetland based on the presence of wetland hydrology and hydric soils. We recommend that the applicant re-delineate the eastern boundary line based on guidance in Appendix E of the *Washington State Wetlands Identification and Delineation Manual*. Guidance presented in the 23 May 1994 Public Notice, which is included in Appendix E, pertains to wetlands dominated by Facultative Upland vegetation. It is our opinion that some areas dominated by Himalayan blackberry on the site qualify as jurisdictional wetland. The revised wetland boundary should be submitted to the City for review.

While on-site, it is not possible to confidently determine the northern limits of the subject site. For this reason, we are not able to confirm if wetland and/or wetland buffer occur in the northwestern portion of the site. We recommend that the property corners be clearly marked in the field. It is our opinion that areas dominated by Himalayan blackberry on or near the northwestern portion of the subject site are wetland and that wetland buffer likely extends onto the subject site. However, without knowing the exact limits of the site boundary, we cannot say conclusively if wetland or wetland buffer occurs on that portion of the site.

Based on wetland delineation information for properties in the vicinity of Forbes 9 wetland and information in the Kirkland's Streams, Wetlands, and Wildlife Study (The Watershed Company 1998), we estimate the wetland area to be approximately 7.5 acres (see attached figure). Wetland area just south of the Forbes 9 wetland is estimated to be nearly 1.5 acres. These two wetland areas are hydrologically connected by a Class B stream. The entire wetland stream complex is appears to be about nine acres in size.

Adolfson has reviewed the Wetland Field Data Form prepared by Armour, and we agree with the rating results. We also agree with the applicant that this wetland is a Type 2 wetland requiring a 75-foot buffer. Although the wetland area appears to be less than the 10 acres necessary to qualify as a Type 1 wetland, it is our opinion that this wetland/stream complex is a high quality system in the City of Kirkland that merits the maximum buffer protection allowed under the Code. Figure 2 of the report shows a 50-foot-wide buffer on this wetland. The applicant must demonstrate compliance with section 90.60 (Wetland Buffer Modification) of the City's regulation in order to reduce the standard buffer width by one-third from 75 feet to 50 feet.

On-site Stream. We agree with the applicant that the on-site stream is a Class B stream. However, the standard buffer width for Class B streams in a Primary Basin is 60 feet instead of the 40-foot buffer shown on Figure 2. The applicant must demonstrate compliance with section 90.100 (Stream Buffer Modification) in order to reduce the standard buffer width by one-third from 60 feet to 40 feet.

Off-site Wetland. Adolfson agrees with the wetland boundary delineated on the parcel immediately south of the subject site and that the off-site wetland is a Type 2 wetland. However, this wetland occurs within the Forbes Creek watershed, which is considered a Primary Basin by the City. Therefore, this wetland is required to have a 75-foot buffer instead of the 50-foot buffer shown on Figure 2. The applicant must

demonstrate compliance with section 90.60 (Wetland Buffer Modification) of the City's regulations in order to reduce the standard buffer by one-third from 75 feet to 50 feet.

Limitations. Within the limitations of schedule, budget, and scope-of-work, we warrant that this study was conducted in accordance with generally accepted environmental science practices, including the technical guidelines and criteria in effect at the time this study was performed. The results and conclusions expressed herein represent our best professional judgment, based upon information provided by the project proponent in addition to that obtained during the course of this assessment. No other warranty, expressed or implied, is made.

Thank you for the opportunity to prepare this for you. If you have any questions, please call me at (206) 789-9658.

Sincerely,

ADOLFSON ASSOCIATES, INC.

Donna Frostholm

Donna Frostholm
Senior Wetland Biologist

reams

- Wetlands
- Streams
- Culverts
- Basin Boundary

N

700 0 700 1400 Fee

Note: Boundaries of features shown are approximate, based on aerial photos and field observations. These lines have not been surveyed.

Ma

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

Project/Site: 663990-0250 City/County: Kirkland Sampling Date: 10/9/15
Applicant/Owner: HGL Investments State: WA Sampling Point: SL-1
Investigator(s): Jeff Jones Section, Township, Range: SW 33, T 26N, R5E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 2
Subregion (LRR): NW Forests Lat: Long: Datum:
Soil Map Unit Name: Alderwood 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 ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer macrophyllum	40	Y	FACU
2.			
3.			
4.			
	40 = Total Cover		

Sapling/Shrub Stratum (Plot size: 10')			
1. Corylus cornuta	20	Y	FACU
2. Oemleria cerasiformis	5	Y	FACU
3. Rubus spectabilis	15	Y	FAC
4.			
5.			
	40 = Total Cover		

Herb Stratum (Plot size: 10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		

Woody Vine Stratum (Plot size: 10')			
1. Hedera helix	60	Y	NL
2. Rubus ursinus	20	Y	FACU
	80 = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: NL - not listed

SOIL

Sampling Point: 5-7

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR2/2	100					grsl	
4-16"	10YR3/3	100					grsl	

[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.)

- ___ 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 Soils[3]:

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

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

Restrictive Layer (if present): None

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes ___ No ✓

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 ✓ 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

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

Project/Site: 663990-0250 City/County: Kirkland Sampling Date: 10/9/15
Applicant/Owner: HGL State: WA Sampling Point: SL-2
Investigator(s): Jeff Jones Section, Township, Range: SW33, T26N, R5E
Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR): NW Forests Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Norma NWI classification: PFO
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 ✓ No ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus emarginata	20	Y	FACU
2.			
3.			
4.			
	____ = Total Cover		

Sapling/Shrub Stratum (Plot size: 10')			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		

Herb Stratum (Plot size: 10')			
1. Rubus spectabilis	60	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	____ = Total Cover		

Woody Vine Stratum (Plot size: 10')			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ 5 - Wetland Non-Vascular Plants[1]
__ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No ____

Remarks:

SOIL

Sampling Point: SL-2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16"+	10YR 3/1	100					SL	

[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.)

- ___ 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 Soils[3]:

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

[3]Indicators 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 ___

Remarks: transitional soil at edge of wetland

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 ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

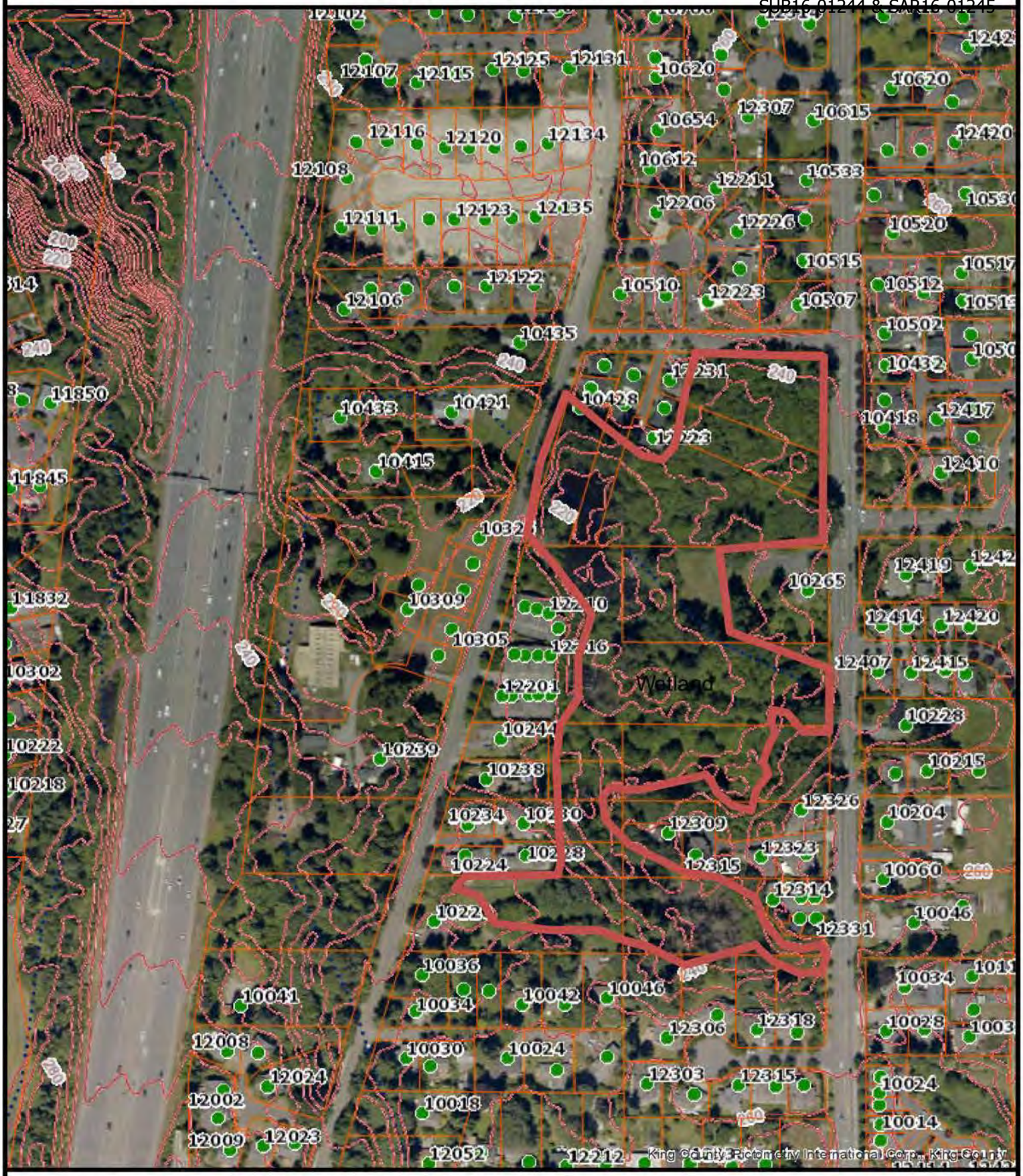
Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 12

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

Wetland AU Sketch



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King County
GIS Center

Date: 10/12/2015 Notes:

Plate 26 WETLAND FIELD DATA FORM SHARE

(Note: Applicable to Chapter 90 KZC, but not Chapter 83 KZC)

WETLAND FIELD DATA FORM

BEGIN BY CHECKING ANY OF THE FOLLOWING (a. – e.) THAT APPLY:

a. The wetland is contiguous to Lake Washington; No

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils;
No peat bog. wetland soils sandy loam

c. The wetland is equal to or greater than 10 acres in size and having three or more wetland classes, as defined by the U.S. Fish & Wildlife Service (Cowardin et al., 1979), one of which is open water;
≈ 8 acres

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or No

e. The wetland contains state or federally listed threatened or endangered plant species. No

IF ANY OF THE CRITERIA LISTED ABOVE ARE MET, THEN THE WETLAND IS CONSIDERED TO BE TYPE 1. IF THAT IS THE CASE, PLEASE CONTINUE TO COMPLETE THE ENTIRE FORM, BUT DO NOT ASSIGN POINTS.

IF THE WETLAND DOES NOT MEET THE CRITERIA LISTED ABOVE FOR TYPE 1, COMPLETE THE ENTIRE FORM, USING THE ASSIGNED POINTS TO DETERMINE IF IT IS A TYPE 2 OR TYPE 3 WETLAND.

Type 2 wetlands typically have at least two wetland vegetation classes, are at least partially surrounded by buffers of native vegetation, connected by surface water flow (perennial or intermittent) to other wetlands or streams, and contain or are associated with forested habitat.

1. Total wetland area

Estimate wetland area and score from choices	Acres		Point Value	Points
	>20.00	=	6	
	10-19.99	=	5	
	5-9.99	=	4	4
	1-4.99	=	3	
	0.1-0.99	=	2	
	<0.1	=	1	

2. Wetland classes: Determine the number of wetland classes that qualify, and score according to the table.

	# of Classes		Points
Open Water: if the area of open water is >1/3 acre or >10% of the total wetland area	1	=	1
Aquatic Beds: if the area of aquatic beds is >10% of the **open water** area **or** >1/2 acre	2	=	3
Emergent: if the area of emergent class is >1/2 acre **or** >10% of the total wetlandarea	3	=	5
Scrub-Shrub: if the area of scrub-shrub class is >1/2 acre **or** >10% of the totalwetland area	4	=	7
Forested: if the area of forested class is >1/2 acre or >10% of the total wetland area	5	=	10

3. Plant species diversity.

For all wetland classes which qualified in 2 above, count the number of different plant species and score according to the table below. You do not have to name them.

e.g., if a wetland has an aquatic bed class with 3 species, and emergent class with 4 species and a scrub-shrub class with 2 species, you would circle 2, 2, and 1 in the second column (below).

Class	# of Species		Point Value	Class	# of Species		Point Value
Aquatic Bed	1-2	=	1	Scrub-Shrub	1-2	=	1

	3	=	2
	>3	=	3
Emergent	1-2	=	1
	3-4	=	2
	>4	=	3

	3-4	=	2
	>4	=	3
Forested	1-2	=	1
	3-4	=	2
	>4	=	3

4. Structural diversity.

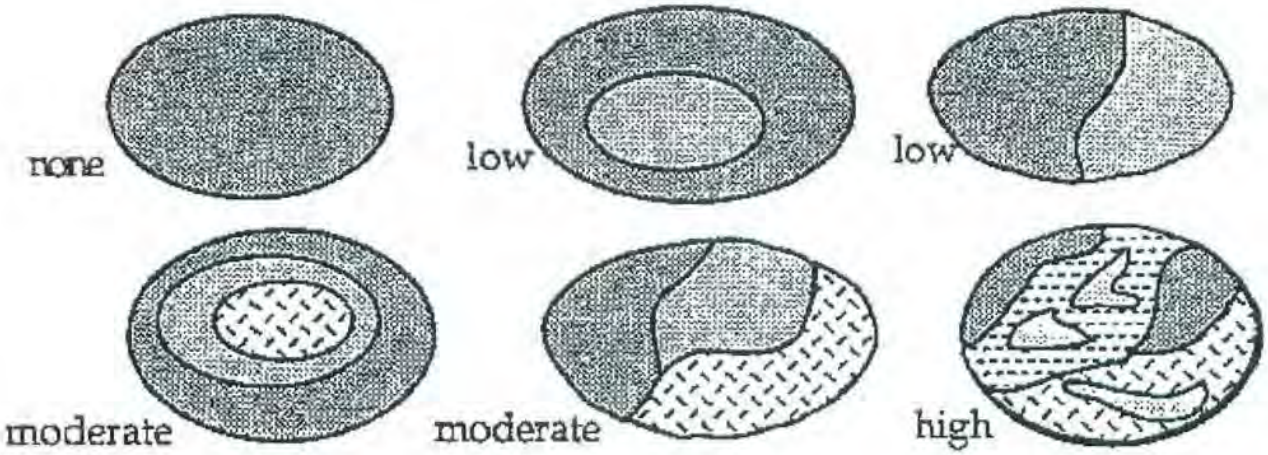
If the wetland has a forested class, add 1 point for each of the following attributes present:

Trees >50' tall	=	1
Trees 20' to 49' tall	=	1
shrubs	=	1
Herbaceous ground cover	=	1

5. Interspection between wetland classes.

Decide from the diagrams below whether interspection between wetland classes is high, moderate, low or none

3	=	High
2	=	Moderate
1	=	Low
0	=	None



6. Habitat features

Add points associated with each habitat feature listed:	=	3
Is there evidence of current use by beavers?	=	2
Is a heron rookery located within 300'?	=	1
Are raptor nest(s) located within 300'?	=	1
Are there at least 2 standing dead trees (snags) per acre?2	=	1
Are there any other perches (wires, poles, or posts)?	=	1
Are there at least 3 downed logs per acre?	=	1

7. Connection to streams

Is the wetland connected at any time of the year via surface water? (score one answer only)

Is the wetland connected at any time of the year via surface water?

To a perennial stream or a seasonal stream *with* fish	=	5
To a seasonal stream *without* fish	=	3

Is not connected to any stream = 0

8. Buffers

Step 1: Estimate (to the nearest 5%) the percentage of each buffer or land-use type (below) that adjoins the wetland boundary. Then multiply these percentages by the factor(s) below and enter result in the column to the right.

	% of Buffer	Step 1	Width Factor	Step 2
Roads, buildings or parking lots	30 % X 0 =	~~30~~ 0 X 1	= 0	
Lawn, grazed pasture, vineyards or annual crops	40 % X 1 =	40 X 1	= 40	
Ungrazed grassland or orchards	% X 2 =		=	
Open water or native grasslands	% X 3 =		=	
Forest or shrub	30 % X 4 =	~~8~~ 120	1 = 120	
		~~160~~	Add buffer total	160

Step 2: Multiply result(s) of step 1:

By 1 if buffer width is 25-50'

By 2 if buffer width is 50-100'

By 3 if buffer width is >100'

Enter results and add subscores

Step 3: Score points according to the following table:

Buffer Total

900-1200 = 4

600-899 = 3

300-599 = 2

100-299 = 1

9. Connection to other habitat areas:

Is there a riparian corridor to other wetlands within 0.25 of a mile, or a corridor >100' wide with good forest or shrub cover to any other habitat area? = 5

Is there a narrow corridor <100' wide with good cover or a wide corridor >100' wide with low cover to any other habitat area? = 3

Is there a narrow corridor <100' wide with low cover or a significant habitat area within 0.25 mile but no corridor? = 1

Is the wetland and buffer completely isolated by development and/or cultivated agricultural land? = 0

10. Scoring

Add the scores to get a total: 30

Question: Is the total greater than or equal to 22 points?

Answer:

Yes = Type 2

No = Type 3

U.S. Fish and Wildlife Service

National Wetlands Inventory

Oct 13, 2015

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

Riparian Status

- Digital Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

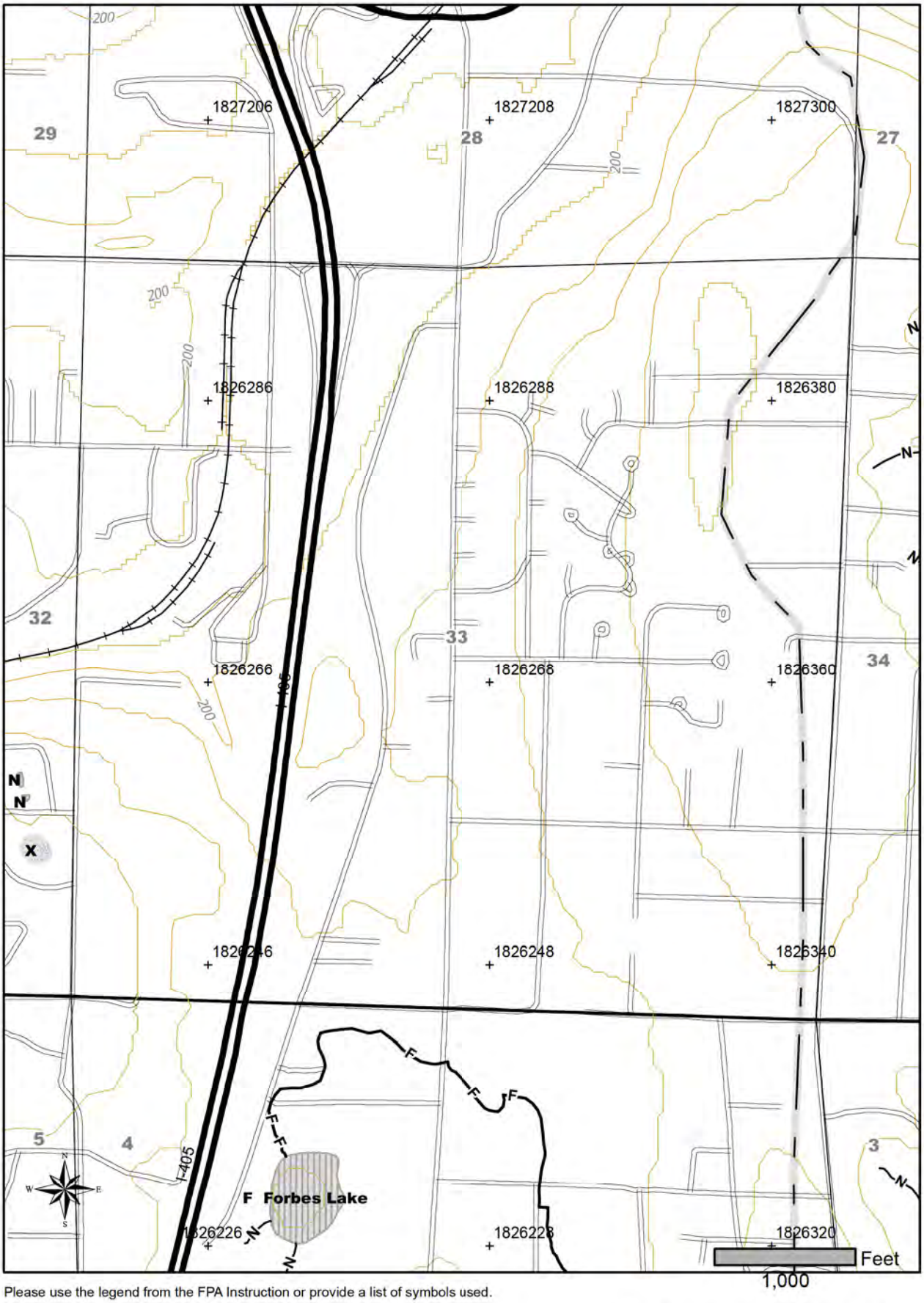
User Remarks:

FOREST PRACTICE ACTIVITY MAP

TOWNSHIP 26 NORTH HALF 0, RANGE 05 EAST (W.M.) HALF 0, SECTION 33

Application #: _____

Attachment 6
Zhang
SUB16-01244 & SAR16-01245



Please use the legend from the FPA Instruction or provide a list of symbols used.

Date: 10/12/2015 Time: 6:15:05 PM
NAD 83
Contour Interval: 40 Feet

Wetland Sketch

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Date: 10/12/2015 Notes:

King County
GIS Center

THE WATERSHED COMPANY

November 20, 2015

Kaelene Nobis
City of Kirkland
Planning and Community Development
123 5th Avenue
Kirkland, WA 98033

Re: Larson Property, Wetland Delineation Review
The Watershed Company Reference Number: 140622.21

Dear Kaelene:

We are pleased to present to you the findings of a wetland delineation review for the Larson property located in the 102nd block of 124th Ave NE in the City of Kirkland (parcel number 6639900250). The delineation study was performed by Jeffrey S. Jones of J. S. Jones and Associates (JSJA) on October 9, 2015. The findings of that study are summarized in the delineation report entitled *Critical Area Study*, dated October 12, 2015. You provided us with the report for our review.

Both the delineation report and field conditions were reviewed for this letter. I made a brief site visit on November 10, 2015 to evaluate all of the on-site wetland and data point flags and to review the Kirkland Data Form while viewing the wetland.

I agree with the main conclusions of the delineation study and report. The JSJA field flagging accurately marks the on-site wetland boundaries of the Forbes 9 wetland. I concur with the Type 2 wetland classification and the 75-foot standard buffer.

A professional land survey-based figure did not accompany the submittal. Please note that the Kirkland Zoning Code (Section 90.40.3) requires this. However, as the field flagging was examined on-site, a map was not essential to evaluate the delineation. The report states that a survey will be completed after the delineation review; the delineation figure should be submitted to the City upon completion. Provided all flags are located and depicted accurately, the figure should be acceptable.

A few minor discrepancies that appear to be from an old report template should be corrected. A reference to "considerably disturbed soils" in the methods section does not seem to reflect site conditions. A parcel number on report page 1 is inaccurate, and a reference to the City of Kent

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

should be removed. Although these small items do not affect the overall findings of the study, the report should be revised in the interest of accurate documentation.

Thank you again for the opportunity to review this delineation study. Feel free to call me if you have any questions at (425) 822-5242.

Sincerely,

Mike Foster
Ecologist