



**CRITICAL AREAS STUDY
WESTHILL, INC. (LEAHY PROPERTY)
CITY OF MERCER ISLAND TAX PARCEL #004610-0152**

PREPARED FOR:

Westhill, Inc.

Attn: Mr. Chuck Russell

P.O. Box 306

Woodinville, WA 98072

PREPARED BY:

Wetlands & Wildlife, Inc.

19410--179th Court NE

Woodinville, WA 98077

(425) 337-6450

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ATTACHMENTS:

1. **WETLAND DETERMINATION DATA FORMS (6 DATA POINTS)**
2. **WETLAND RATING FORMS--WESTERN WASHINGTON (3 FORMS WITH REQUIRED FIGURES)**
3. **CRITICAL AREAS OVERVIEW MAP** **MAP SHEET CA1.00**

INTRODUCTION AND BRIEF SITE DESCRIPTION

The subject property is located at 4340 East Mercer Way in the City of Mercer Island, Washington. The King County tax parcel number for the property follows: 004610-0152. Per the King County Assessor's office, the site encompasses approximately 0.49 acres and is currently owned by William Leahy. Vehicular site access to the subject property is gained by travelling west from a private road onto an existing concrete driveway located among the eastern portion of the property. The subject property is currently developed with a single-family residence and associated infrastructure normal to single-family residential properties in the region.

Wetlands & Wildlife, Inc. was retained by *Westhill, Inc.* to conduct detailed Critical Areas evaluations of the subject property and vicinity pursuant to the requirements outlined in Chapter 19.07 (Environment) of the Mercer Island City Code (MICC). Specifically, *Wetlands & Wildlife, Inc.* was retained to determine if any wetlands, streams, or associated protective buffer areas regulated by the MICC exist on or near the property. *Wetlands & Wildlife, Inc.* conducted detailed Critical Areas multiple site visits to the subject property during 2020. Please review the RESULTS AND FINDINGS OF CRITICAL AREAS EVALUATION section of this report for further information. Please also see the attached Critical Areas Overview Map (Map Sheet CA1.00).

STATEMENT OF QUALIFICATIONS TO CONDUCT THIS CRITICAL AREAS EVALUATION

Per requirements outlined in Chapter 19.07 (Environment) of the MICC, a Critical Areas Study shall be prepared by a qualified professional using guidance based on the best available science consistent with the standards in Chapter 365-195 of the Washington Administrative Code (WAC). Therefore, the following provides a brief overview of my experience and credentials to conduct the detailed evaluations on the subject property. I am the Founder, Owner, and Principal Wetland and Wildlife Ecologist of *Wetlands & Wildlife, Inc.* I attended the University of Montana where I graduated cum laude with a degree in Wildlife Biology. As of 2021, I have 20 years of direct experience as a professional Biologist / Ecologist in western Washington and 24 years of overall experience completing natural resource assessments among many different ecosystems across the western United States. I have worked as a professional Biologist / Ecologist for federal, state, and county environmental agencies, as well as several private environmental consulting firms with specialties in wetlands, streams, rivers, lakes, and wildlife habitat. In my 24 years of biological / ecological experience, I have specialized in evaluations of proposed land use and building development permit applications as they pertain to Critical Areas (wetlands, rivers, streams, lakes, and habitats of protected fish and wildlife species). My professional employment experience includes working as a Senior Reviewing Ecologist for King County DDES / DPER and a Regulatory Biologist for Snohomish County PDS.

I am listed on several Preferred / Qualified Consultant Rosters throughout western Washington. I am highly experienced with the required U.S. Army Corps of Engineers and Washington State wetland delineation methods. In addition to the wetland delineation certification, I am trained by the Washington Department of Ecology and have 16 years of experience in the use of the required Wetland Rating Form for western Washington (since its inception). I am trained by the Washington Department of Ecology to determine

Ordinary High Water Mark (OHWM) locations for rivers, streams, and lakes. In addition to my expertise related to wetlands and streams, I have 24 years of experience conducting wildlife habitat assessments and / or wildlife surveys of special-status wildlife species and species of local importance in the western U.S. I received certifications from the Washington Department of Fish and Wildlife for terrestrial wildlife habitat assessments and wildlife surveys of special-status wildlife species.

I have conducted over 2,000 biological / ecological assessments in different capacities on properties with many habitat types and zoning designations, from small, urban properties (0.25 acres) to large, rural properties (up to 2,000 acres in size). I have been selected by several local city jurisdictions to provide on-call 3rd-party environmental reviews of proposed development projects for compliance with local Critical Areas Ordinances and the FEMA Floodplain Habitat Assessment and Mitigation document.

PURPOSE OF THIS REPORT AND DESCRIPTION OF THE PROPOSED PROJECT

This report is intended to be submitted to the City of Mercer Island Permitting Division for the purpose of providing information related to any regulated wetlands, streams, and associated buffers that are located on or near the subject property. The property owner is proposing to construct a 2nd-story addition on the property, entirely located within the building footprint associated with the existing house. Lauren Anderson, Planner for the City of Mercer Island, wrote a letter dated March 31, 2021. In that letter, Ms. Anderson requested for the project team to provide information as to how the proposed is exempt from SEPA review per Washington Administrative Code (WAC) section 197-11-800. In accordance with WAC section 197-11-800(1), the proposed project is categorically exempt from SEPA review because the project includes minor new construction associated with a proposed 2nd-story addition to an existing single-family residence. The proposed 2nd-story addition will be located entirely within the building footprint of the existing single-family residence. Single-family residential projects are categorically exempt from SEPA review as long as none of the proposed project "Is undertaken wholly or partly on lands covered by water". As detailed later in this report, no proposed project activities are located among areas that are wholly or partly on lands covered by water. All proposed project activities are located more than 45 feet from the on-site stream and / or off-site wetlands. Therefore, the proposed single-family residential addition project meets all criteria to be considered categorically exempt from SEPA review.

Please see the attached Map Sheet CA1.00 for a general depiction of the proposed 2nd-story addition in relation to the existing site features. Per information obtained from Cindy Larsen, Architect from *Bassett Larsen Design, LLC*, the proposed 2nd-story addition would provide approximately 1,000 square feet of additional living space. The City of Mercer Island code section 19.16.010 defines the term "building footprint" as follows: "That portion of the lot that is covered by buildings." The proposed 2nd-story addition will be located entirely within the bounds of the existing roofline / overhangs associated with the existing house. Therefore, the proposed 2nd-story addition will not result in any increase to the existing "building footprint" as defined in the City's code section 19.16.010.

The proposed 2nd-story addition has been very carefully examined in accordance with the mitigation sequencing requirements outlined in MICC section 19.07.100. Due to the size of the property, location of the existing house, property line setbacks, and / or the site constraints associated with the on-site Critical

Areas detailed in this report, there is no opportunity to construct the 2nd-story addition outside of the standard 60-foot buffer width associated with the Type Ns stream located near the southern property line and / or the standard 60-foot buffer associated with Off-site Wetland C. Therefore, the property owner is proposing to construct the proposed 2nd-story addition partially within the standard stream and wetland buffer in accordance with MICC section 19.07.130 (Modifications). As stated in MICC section 19.07.130, "The activities in this section are exempt from the development standards in subsequent sections within this chapter; provided that additional measures to protect life and property or to protect environmental quality may be required." Please view the report section below titled DISCUSSION REGARDING THE PROPOSED ADDITION WITHIN STANDARD CRITICAL AREA BUFFERS which details how the proposed project adheres to the Mercer Island City Code.

Based on this information and our detailed evaluations related to the proposed project, it is the professional opinion that the proposed project meets the intent and requirements of the MICC. Please view the remainder of this report for more information regarding our findings and determinations.

METHODOLOGIES OF CRITICAL AREAS EVALUATION

Wetlands & Wildlife, Inc. used methodologies described in Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State and definitions outlined in MICC19.16.010 to make a determination regarding any potential regulated streams, lakes, or rivers on or near the subject property in accordance with the MICC regulations.

Wetlands & Wildlife, Inc. also used the routine methodologies described in the Washington State Wetlands Identification and Delineation Manual (Washington State Department of Ecology Publication #96-94, March 1997) to make a determination regarding the presence of any regulated wetlands. In addition, *Wetlands & Wildlife, Inc.* evaluated the site using the U.S. Army Corps of Engineers Wetland Delineation Manual produced in 1987 and the U.S. Army Corps of Engineers Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region produced in May 2010 (hereinafter referred to as the "Regional Supplement"). The Regional Supplement is designed for concurrent use with the 1987 Corps Wetland Delineation Manual and all subsequent versions. The Regional Supplement provides technical guidance and procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction under Section 404 of the Clean Water Act. Where differences in the two documents occur, this Regional Supplement takes precedence over the Corps Manual for applications in the Western Mountains, Valleys, and Coast Region.

According to the federal and state methodologies described above, identification of wetlands is based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soils, and presence or evidence of persistent hydrology. Except where noted in the manuals, the three-factor approach discussed above requires positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to make a determination that an area is a regulated wetland. Using the aforementioned manuals, the site characteristics for making a wetland determination include the following:

- 1.) Examination of the site for hydrophytic vegetation (species present/percent cover);

- 2.) Examination for the presence of hydric soils in areas where hydrophytic vegetation is present; and
- 3.) Examination to determine if adequate hydrology exists for sufficient durations during the early part of the growing season in the same locations as the previous two steps.

Per City of Mercer Island requirements, *Wetlands & Wildlife, Inc.* examined the entire subject site and rated wetlands using the Washington State Wetland Rating System for Western Washington (Revised, Publication No. 14-06-029, October 2014). In addition to assessing the site characteristics on the subject property, *Wetlands & Wildlife, Inc.* also visually assessed the surrounding properties within approximately 300 feet of the subject property to the maximum extent practical without accessing adjacent private properties due to a lack of legal site access onto those other private properties. While a detailed assessment of Critical Areas on adjacent private properties was not possible due to lack of legal access, *Wetlands & Wildlife, Inc.* conducted a review of all readily available information to assess the potential presence of any off-site Critical Areas in close proximity to the subject site. The evaluation of adjacent properties is necessary to determine if any regulated Critical Areas exist off-site which would cause associated protective buffers to extend onto the property and potentially affect a future development proposal on the subject property.

In addition to on-site field evaluations, we also examined the Web Soil Survey maps produced by the Natural Resources Conservation Service (NRCS), National Wetlands Inventory (NWI) maps produced by the U.S. Fish and Wildlife Service (USFWS), SalmonScape fish distribution maps produced by the Washington Department of Fish and Wildlife (WDFW), and StreamNet fish distribution maps produced by Pacific States Marine Fisheries Commission.

RESULTS AND FINDINGS OF CRITICAL AREAS EVALUATION

Based on our detailed evaluations of the subject property, one stream (Stream A) is located on-site among the southwest corner of the subject property and the stream is located in close proximity to the southern property boundary. In addition to the stream, three separate regulated wetlands are located off-site to the south of the property near the southern property line. Please view the attached Map Sheet CA1.00 for the location of the Critical Areas described above. No other regulated wetlands or streams were located on or near the subject site that would affect the proposed development

Cowardin Classifications:

According to the Cowardin System, as described in Classification of Wetlands and Deepwater Habitats of the United States, the classifications for the subject stream and wetlands follow:

- Stream A: Riverine, Intermittent, Streambed, Cobble-Gravel (R4SB3)
- Off-site Wetland A: Palustrine, Emergent, Persistent, Saturated (PEM1B)
- Off-site Wetland B: Palustrine, Forested, Broad-Leaved Evergreen, Saturated (PFO3B)
- Off-site Wetland C: Palustrine, Emergent, Persistent, Saturated (PEM1B)

Classifications Pursuant to the City of Mercer Island Critical Areas Regulations:

Pursuant to Chapter 19.07 of the MICC, the classifications and regulations related to the stream and off-site

wetlands are described below.

Stream A transports hydrology generally from west to east. This stream is located on-site among the southwestern portion of the property, and then extends off-site but is located in close proximity to the southern property line as shown on Map Sheet CA1.00. Stream A is classified on the City of Mercer Island GIS Portal as a non-fish bearing stream and appears to be a seasonal / intermittent stream. Therefore, the stream is considered a Type Ns stream. Per MICC section 19.07.180.C.1, Type Ns streams in the City of Mercer Island typically receive 60-foot protective buffers. **Therefore, the standard buffer width required for this stream on this site equals 60 feet.** Please see the discussion below regarding overlapping buffer widths. Please also see the attached Map Sheet CA1.00 for a depiction of Stream A.

Off-site Wetland A is located off-site to the south of the property, near the southwest property corner as depicted on the attached Map Sheet CA1.00. Per the City of Mercer Island code requirements, Wetland A was rated using the Washington State Wetland Rating System for Western Washington (Revised, Publication No. 14-06-029, October 2014). The wetland slopes from south to north toward Stream A and was therefore rated as a "Slope" wetland on the Wetland Rating Form. Using the Wetland Rating Form, the subject wetland scored a total of 14 points (6 points for Water Quality Functions, 4 points for Hydrologic Functions, and 4 points for Habitat Functions) and is therefore considered a **Category IV wetland**. The rating form is attached to this report for viewing. Per the table shown MICC 19.07.090.C.1, Category IV wetlands typically require a protective buffer width of 40 feet to be applied parallel to the wetland boundary. **Therefore, the standard buffer width required for Wetland A equals 40 feet.** Please view the discussion below regarding overlapping buffer widths and the attached Map Sheet CA1.00 for a depiction of Wetland A and its associated protective buffer.

Off-site Wetland B is located off-site to the south of the property, south of the existing residence as depicted on the attached Map Sheet CA1.00. Per the City of Mercer Island code requirements, Wetland B was rated using the Washington State Wetland Rating System for Western Washington (Revised, Publication No. 14-06-029, October 2014). The wetland slopes from toward Stream A and was therefore rated as a "Slope" wetland on the Wetland Rating Form. Using the Wetland Rating Form, the subject wetland scored a total of 13 points (6 points for Water Quality Functions, 3 points for Hydrologic Functions, and 4 points for Habitat Functions) and is therefore considered a **Category IV wetland**. The rating form is attached to this report for viewing. Per the table shown MICC 19.07.090.C.1, Category IV wetlands typically require a protective buffer width of 40 feet to be applied parallel to the wetland boundary. **Therefore, the standard buffer width required for Wetland B equals 40 feet.** Please view the discussion below regarding overlapping buffer widths and the attached Map Sheet CA1.00 for a depiction of Wetland B and its associated protective buffer.

Off-site Wetland C is located just off-site to the south of the property, south of the existing concrete driveway and near the existing asphalt road as depicted on the attached Map Sheet CA1.00. Per the City of Mercer Island code requirements, Wetland C was rated using the Washington State Wetland Rating System for Western Washington (Revised, Publication No. 14-06-029, October 2014). The wetland slopes from north to south toward Stream A and was therefore rated as a "Slope" wetland on the Wetland Rating Form. Using the Wetland Rating Form, the subject wetland scored a total of 16 points (7 points for Water

Quality Functions, 4 points for Hydrologic Functions, and 5 points for Habitat Functions) and is therefore considered a **Category III wetland**. The rating form is attached to this report for viewing. Per the table shown MICC 19.07.080(C)(1), Category III wetlands which receive 5 points on the habitat section of the Wetland Rating Form typically require a protective buffer width of 60 feet to be applied parallel to the wetland boundary. **Therefore, the standard buffer width required for Wetland C equals 60 feet.** Please view the discussion below regarding overlapping buffer widths and the attached Map Sheet CA1.00 for a depiction of Wetland C and its associated protective buffer.

Discussion Regarding Geologic Hazard Assessment:

Wetlands & Wildlife, Inc. does not conduct geologic hazard assessments to determine if project sites contain any regulated geologic hazard areas. However, the property owners retained *Associated Earth Sciences, Inc.* to evaluate the property for potential geologic hazard areas on the subject property in accordance with the City of Mercer Island's code requirements. Please view the letter dated January 22, 2021 which was prepared by Timothy Peter, Senior Engineering Geologist of *Associated Earth Sciences, Inc.* Per the geologic hazard assessments conducted by *Associated Earth Sciences, Inc.*, the southwestern portion of the subject property contains a regulated steep slope / landslide hazard area per the definitions in the City of Mercer Island's code. Based on the conditions present, *Associated Earth Sciences, Inc.* recommends a 25-foot buffer from the steep slope / landslide hazard area. Please view Map Sheet CA1.00 which depicts the steep slope / landslide hazard area and the recommended 25-foot buffer associated with the slope. Please also see the discussion below regarding overlapping buffers.

Discussion Regarding Overlapping Critical Areas Buffers:

As mentioned above, the subject properties contain multiple Critical Areas which are regulated pursuant to Chapter 19.07 of the MICC. When two or more Critical Area buffers overlap, the more restrictive buffer typically applies. On these particular properties, the resulting standard buffer line from overlapping buffer widths is shown on the attached Map Sheet CA1.00.

Discussion Regarding Building Setback Line:

In addition to the protective buffer widths described above, MICC section 19.07.180.C.7 states "...buildings and other structures shall be set back a minimum of ten feet from the edges of a watercourse buffer." However, per previous detailed email correspondence between Robin Proebsting (Senior Planner at the City of Mercer Island's Community Planning and Development Department) and Cindy Larsen of *Bassett Larsen Design, LLC*, an additional 10-foot building setback line is not required to accommodate the proposed 2nd-story addition in this scenario due to the existing residence in the buffer. Further, the proposed 2nd-story addition will be located farther from the stream and wetland than the existing residence and the addition will be constructed entirely within the building footprint associated with the existing residence. The attached Map Sheet CA1.00 depicts the standard 10-foot building setback line.

On-site Vegetation and Soils Data:

Wetlands & Wildlife, Inc. collected detailed vegetation and soils data at six (6) different locations to gain representative data regarding vegetative characteristics. *Wetlands & Wildlife, Inc.* did not have legal access to assess soils or hydrology for the off-site wetland data points because the wetlands are located off-site to the south of the property on an adjacent privately-owned property. However, per professional ecological standards and requirements, visual assessments were conducted while standing on the southern property

line to determine that the required wetland parameters are likely met among the off-site wetlands. Please view the six Wetland Determination Data Forms (produced by the Army Corps of Engineers) which describe the determinations at each data point location. The data forms are attached to this report, and are labeled as DP1 through DP6. Please also view the location of these data points (labeled as DP) shown on the attached Map Sheet CA1.00.

Natural Resource Conservation Service Soils Description:

The Natural Resources Conservation Service (NRCS) mapped the soil on the entire subject property as Kitsap Silt Loam (15 to 30 percent slopes). Kitsap Silt Loam (15 to 30 percent slopes) is typically formed on Terraces with a parent material of Lacustrine deposits with minor amount of volcanic ash. The depth to restrictive feature is typically more than 80 inches below the soil surface. This soil type is moderately well drained and the frequency of flooding and ponding is none. Available water capacity is high. The typical soil profile is ashy silt loam from 0 to 40 inches below the surface and stratified silt to silty clay loam from 40 to 60 inches below the surface. Minor components include Bellingham soil series (1 percent), Seattle soil series (1 percent) and Tukwila soil series (1 percent).

EXISTING ECOLOGICAL FUNCTIONS AND VALUES ASSESSMENT

The methodologies for this functions and values analysis are based on professional opinion developed through past field analyses and interpretations. This analysis pertains specifically to the subject wetlands, stream and buffer characteristics, but is typical for assessments of similar systems throughout the Puget Sound region of western Washington.

The three main functions provided by wetlands include water quality, stormwater / hydrologic control, and wildlife habitat. These functions become increasingly important in an urbanizing environment. The subject wetlands are dominated by shrub and emergent vegetation. Established vegetation serves to intercept rainfall before it strikes the soil, thereby preventing erosion and improving water quality. In addition, a dense herbaceous layer provides greater resistance to surface water flow, thereby allowing more time for pollutants to settle out. The vegetation and adsorbent soils serve to trap sediment and pollutants and provide increased water quality functions to aid in a reduction of suspended sediment in surface water flows which results in cleaner water leaving the site. Among areas of steep gradient topography, the function of these characteristics is particularly important to decrease the water velocity of the associated down-gradient systems, which can reduce peak flood stages during heavy rainfall and increase water retention during dry periods. Water retained within the wetlands slowly infiltrates into the ground, thus recharging groundwater and helping to moderate groundwater levels and reduce down-gradient flows.

Wetlands often contain necessary habitat components such as hiding cover, thermal cover, water, and forage opportunities in close proximity. As evidenced by the scores of 4 and 5 for Habitat Functions on the attached Wetland Rating Forms, each of the subject wetlands provides a low level of habitat for wildlife species. The subject wetlands evaluated for this proposed project contain limited vegetation classes and water regimes and contain few special habitat features except for undercut banks, which provide limited functional habitat for wildlife because of the isolated characteristic and sizes of the off-site wetlands. The surrounding landscape also provides a low level of opportunity to support the potential for wildlife habitat

based on the proximity to undisturbed habitat and disturbed areas such as residential land use and roadways that support daily human traffic. The overall habitat functions among the wetlands is significantly reduced due to the residential land-use in the vicinity and proximity to roadways that support daily human-induced traffic.

Although the Type Ns stream located on and near the property does not provide habitat for fish species, the stream provides other important ecological functions to the surrounding environment such as hydrological transport and transport of solids (suspended and dissolved), among other functions. The portions of the site adjacent to the stream (vegetated wetland and associated upland buffers, etc.) are increasingly important to manage appropriately as these areas aid in water quality and hydrologic control, resulting in cleaner water entering the stream's channel. The adjacent wetlands have limited established vegetation among this riparian corridor and therefore provide diminished habitat for wildlife species. However, any overhanging vegetation present among the riparian corridor aids in the potential future recruitment of large woody debris and organic matter to the stream channel.

DISCUSSION REGARDING THE PROPOSED ADDITION WITHIN STANDARD CRITICAL AREA BUFFERS

Mercer Island City Code section 19.07.130.A states that one type of allowed modification is an "Addition to or reconstruction of an existing legally established structure or building within a critical area and/or buffer constructed on or before January 1, 2005, provided the following criteria are met:

1. The seasonal limitations on land clearing, grading, filling, and foundation work described in MICC 19.07.160(F)(2) shall apply.
2. Additions shall be allowed if all of the following criteria are met:
 - a. The structure is enlarged not more than a cumulative total of 200 square feet larger than its footprint as of January 1, 2005;
 - b. If the existing, legally established structure is located over or within a wetland or watercourse, no further expansion within the wetland or watercourse is allowed;
 - c. If the existing legally established structure is located within a wetland or watercourse buffer, the addition may be no closer to the wetland or watercourse than a distance equal to 75 percent of the applicable standard buffer and must also be no closer to the watercourse or wetland than the existing structure;
 - d. A critical area study approved by the city demonstrates that impacts have been avoided or minimized and mitigated consistent with MICC 19.07.100, Mitigation sequencing;
 - e. If the modification or addition is proposed within a geologically hazardous area or associated buffer, a qualified professional provides a statement of risk consistent with MICC 19.07.160(B)(3).

The proposed 2nd-story addition clearly meets all of the required criteria listed in MICC section 19.07.130.A. The proposed 2nd-story addition will not enlarge the existing building footprint at all, as it will be constructed entirely within the building footprint of the existing single-family residence. The existing, legally established residence is not located over or within a wetland or watercourse. The existing legally established residence is located partially within the standard 60-foot buffer associated with Stream A and partially within the standard 60-foot buffer associated with Off-site Wetland C. However, the proposed addition has been specifically designed to be no closer to the wetland or watercourse than a distance equal

to 75 percent of the applicable standard buffer (see the attached Map Sheet CA1.00 for specific distances which are indicated with arrows and text labels). Furthermore, the proposed 2nd-story addition is no closer to the watercourse or wetland than the existing structure, as depicted on the attached Map Sheet CA1.00. This Critical Areas Study demonstrates that the proposed 2nd-story addition will not result in any increase in impervious surfaces and would not adversely impact any of the primary ecological functions provided by streams and wetlands (water quality, hydrologic control, or wildlife habitat). Therefore, due to the proposed project avoiding any adverse ecological impacts, no compensatory mitigation is proposed or required. The proposed 2nd-story addition is not proposed within a geologically hazard area or its associated buffer. Please view the letter dated January 22, 2021 which was prepared by Timothy Peter, Senior Engineering Geologist of *Associated Earth Sciences, Inc.* for more information regarding the geological hazard assessments, and view Map Sheet CA1.00 which depicts the steep slope / landslide hazard area and the recommended 25-foot buffer associated with the slope. The proposed 2nd-story addition is located outside of the geologically hazardous area and its associated 25-foot buffer.

DISCUSSION REGARDING POTENTIAL TEMPORARY BUFFER IMPACTS AND RELATED RESTORATION

Any potential temporary buffer impacts created during the construction efforts associated with the proposed 2nd-story addition will avoid impacts to any trees or shrubs and would only occur among existing maintained lawn / landscaping or on top of existing hard surfaces such as concrete driveway surrounding the existing residence. The applicant will install temporary erosion and sediment control (TESC) best management practices (BMPs) prior to construction as required by the City of Mercer Island, and the soil stockpile will be located outside of the standard overriding Critical Area buffer line depicted on Map Sheet CA1.00 (likely near the NE corner of the existing house).

Any temporarily impacted buffer areas will be quickly and effectively restored to pre-disturbance vegetative conditions and soils among any temporarily impacted buffer areas will be stabilized by spreading grass seed among existing maintained lawn or landscaping that gets temporarily impacted during construction efforts. The following seed mixtures (or similar if these exact seed mixtures are not readily available) will be used among the temporary buffer impact areas / restoration areas:

Proposed Grass / Herb Seed Mixture for Buffer (Non-Wetland) Restoration Areas

<u>Common Name</u>	<u>Latin Name</u>	<u>lbs./1,000 s.f.</u>
Annual ryegrass	<i>Lolium multiflorum</i>	0.5
White clover	<i>Trifolium repens</i>	0.5
Timothy	<i>Phleum pratense</i>	0.5
Orchard grass	<i>Dactylis glomerata</i>	0.5
Tall fescue	<i>Festuca arundinacea</i>	0.5

Following the proposed grass / herb mixtures being spread, weed-free straw shall be placed on top of the seed to aid in soil stabilization and erosion reduction while the seed mixture germinates and begins root growth. All TESC BMP's will remain in place until the soil is sufficiently stabilized to prevent erosion of soil in close proximity to Critical Areas and associated buffers.

PROJECT'S IMPACT DETERMINATIONS RELATED TO CRITICAL AREAS

As previously described in this report, the proposed 2nd-story addition will not result in any increase in impervious surfaces and will not adversely impact any of the primary ecological functions provided by streams and wetlands (water quality, hydrologic control, or wildlife habitat as discussed above in this report). The proposed 2nd-story addition will be located entirely within the building footprint of the existing legally established single-family residence. As detailed in this report, the proposed 2nd-story addition meets all code criteria listed in MICC section 19.07.130(A) related to proposed modifications to an existing structure located within a standard Critical Area buffer. Based on this information, it is the professional opinion that the proposed project meets the intent and requirements of Chapter 19.07 of the Mercer Island City Code. Therefore, no compensatory mitigation efforts are proposed or required for this project, since no adverse ecological impacts will result from the project proposal to add a 2nd-story addition entirely within the building footprint of the existing single-family residence.

LIMITATIONS AND USE OF THIS REPORT

This Critical Areas Study is supplied to *Westhill, Inc.* as a means of determining whether any wetlands, streams, and / or wildlife habitat conservation areas regulated by City of Mercer Island Critical Areas Regulations exist on the site or within close proximity of the site which would affect the permit requirements of the proposed development on the site. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the codes and regulations currently in effect.

The work for this report has conformed to the standard of care employed by professional ecologists in the Puget Sound region. No other representation or warranty, expressed or implied, is made concerning the work or this report. 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. If hidden or concealed conditions arise, the information contained in this report may change based upon those conditions.

The laws applicable to Critical Areas are subject to varying interpretations. While *Wetlands & Wildlife, Inc.* upheld professional industry standards when completing this review, the information included in this report does not guarantee approval by any federal, state, and/or local permitting agencies. Therefore, the work associated with this proposal shall not commence until permits have been obtained from all applicable agencies.

If any questions arise, please contact me directly at (425) 337-6450.

Wetlands & Wildlife, Inc.



Scott Spooner
Owner / Principal Wetland & Wildlife Ecologist

REFERENCES AND LITERATURE REVIEWED

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SalmonScape. Interactive Mapping website administered by the Washington Department of Fish and Wildlife. <http://wdfw.wa.gov/mapping/salmonscape/index.html>.

StreamNet. Fish Data for the Northwest. Administered by the Pacific States Marine Fisheries Commission. <http://www.streamnet.org/>.

U.S. Army Corps of Engineers (2010). "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)," ERDC/EL TR-10-3, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Washington State Wetlands Identification and Delineation Manual. Washington State Department of Ecology. Publication #96-94. March 1997.

Web Soil Survey. United States Department of Agriculture. Natural Resources Conservation Service. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>.

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

Project/Site: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP1
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567802° Long: -122.211259° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: PEM1B

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"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology 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"/>
Remarks: DATA POINT 1 (DP1) WAS VISUALLY ASSESSED ONLY AND IS LOCATED OFF-SITE; SEE MAP SHEET CA1.00	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus spectabilis</u>	<u>5</u>	<u>YES</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>10 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Urtica dioica</u>	<u>40</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Equisetum pratense</u>	<u>20</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Convolvulus arvensis</u>	<u>5</u>	<u>NO</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>10 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 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:

SOIL

Sampling Point: DP1

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		

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.) <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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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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 <input checked="" type="checkbox"/> No _____
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Remarks:

SOILS COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply) <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)	Secondary Indicators (2 or more required) <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)

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

HYDROLOGY COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

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

Project/Site: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP2
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567920° Long: -122.211191° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: N/A

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:	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer macrophyllum</u>	40	YES	FACU	
2. _____				
3. _____				
4. _____				
	40	= Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>30 feet</u>)			
1. <u>Prunus laurocerasus</u>	40	YES	FACU	
2. <u>Gaultheria shallon</u>	20	YES	FACU	
3. <u>Rubus spectabilis</u>	10	NO	FAC	
4. <u>Sambucus racemosa</u>	5	NO	FACU	
5. _____				
	75	= Total Cover		
Herb Stratum	(Plot size: <u>10 feet</u>)			
1. <u>Polystichum munitum</u>	30	YES	FACU	
2. <u>Hedera helix</u>	30	YES	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	60	= Total Cover		
Woody Vine Stratum	(Plot size: <u>10 feet</u>)			
1. <u>Rubus armeniacus</u>	5	YES	FAC	
2. <u>Rubus ursinus</u>	5	YES	FACU	
	10	= 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: 7 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 14 (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:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 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:

SOIL

Sampling Point: DP2

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		
0-3	2.5Y 3/3	100					SALO	MOIST DURING INVESTIGATION
3-12	2.5Y 4/3	70	2.5Y 4/4	30			SALO	MOIST DURING INVESTIGATION

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.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	

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 <input checked="" type="checkbox"/>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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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: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP3
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567881° Long: -121.211175° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: PFO3B

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"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology 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"/>
Remarks: DATA POINT 3 (DP3) WAS VISUALLY ASSESSED ONLY AND IS LOCATED OFF-SITE; SEE MAP SHEET CA1.00	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Thuja plicata</u>	15	YES	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86</u> (A/B)
2. <u>Prunus emarginata</u>	10	YES	FACU	
3. _____				
4. _____				
<u>25</u> = Total Cover				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 = _____
Sapling/Shrub Stratum (Plot size: <u>30 feet</u>)				
1. <u>Rubus spectabilis</u>	20	YES	FAC	
2. <u>Acer circinatum</u>	10	YES	FAC	
3. _____				
4. _____				
5. _____				
<u>30</u> = Total Cover				
Herb Stratum (Plot size: <u>10 feet</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 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.
1. <u>Ranunculus repens</u>	15	YES	FAC	
2. <u>Lysichiton americanus</u>	15	YES	OBL	
3. <u>Athyrium cyclosorum</u>	15	YES	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10 feet</u>)				
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks:

SOIL

Sampling Point: DP3

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		

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.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	Other (Explain in Remarks)
<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)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 SOILS COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

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"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<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)	

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

Wetland Hydrology Present? Yes No

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

Remarks:
 HYDROLOGY COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

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

Project/Site: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP4
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567881° Long: -122.211165° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: N/A

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:	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Thuja plicata</u>	30	YES	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>22</u> (A/B)
2. <u>Acer macrophyllum</u>	30	YES	FACU	
3. _____				
4. _____				
<u>60</u> = Total Cover				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 = _____
Sapling/Shrub Stratum	(Plot size: <u>30 feet</u>)			
1. <u>Prunus laurocerasus</u>	30	YES	FACU	
2. <u>Ilex aquifolium</u>	15	YES	FACU	
3. <u>Corylus cornuta</u>	15	YES	FACU	
4. <u>Rubus spectabilis</u>	5	NO	FAC	
5. _____				
<u>65</u> = Total Cover				
Herb Stratum	(Plot size: <u>10 feet</u>)			
1. <u>Hedera helix</u>	40	YES	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 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.
2. <u>Polystichum munitum</u>	20	YES	FACU	
3. <u>Trillium ovatum</u>	5	NO	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>65</u> = Total Cover				
Woody Vine Stratum	(Plot size: <u>10 feet</u>)			
1. <u>Ranunculus repens</u>	5	YES	FAC	
2. <u>Rubus ursinus</u>	5	YES	FACU	
<u>10</u> = Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks:

SOIL

Sampling Point: DP4

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		
0-6	10YR 3/2	100					SALO	DRY DURING INVESTIGATION
6-12	2.5Y 5/5	50	2.5Y 4/4	50			SALO	DRY DURING INVESTIGATION

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.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	

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

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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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: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP5
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567872° Long: -122.210714° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: PEM1B

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"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology 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"/>
Remarks: DATA POINT 5 (DP5) WAS VISUALLY ASSESSED ONLY AND IS LOCATED OFF-SITE; SEE MAP SHEET CA1.00	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>10 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ranunculus repens</u>	<u>20</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Nasturtium officinale</u>	<u>20</u>	<u>YES</u>	<u>OBL</u>	
3. <u>Lysichiton americanus</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
4. <u>Agrostis capillaris</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>55</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>10 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 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:

SOIL

Sampling Point: DP5

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		

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.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Other (Explain in Remarks)
<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)	

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

Remarks:

SOILS COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

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"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

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

Wetland Hydrology Present? Yes No

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

 Remarks:

HYDROLOGY COULD NOT BE ASSESSED SINCE WETLAND IS OFF-SITE; ASSUMED PER OTHER PARAMETERS

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

Project/Site: 4340 E Mercer Way (Tax Parcel #004610-0152) City/County: City of Mercer Island Sampling Date: 10/29/2020
 Applicant/Owner: Westhill, Inc. (Leahy Property) State: WA Sampling Point: DP6
 Investigator(s): Scott Spooner (Wetlands & Wildlife, Inc.) Section, Township, Range: S18, T24N, R05E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 3
 Subregion (LRR): LRR-A Lat: 47.567919° Long: -122.210795° Datum: WGS84
 Soil Map Unit Name: Kitsap silt loam (15 to 30 percent slopes) NWI classification: N/A

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:	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer macrophyllum</u>	<u>60</u>	<u>YES</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
	<u>60</u>	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 feet</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10 feet</u>)				
1. <u>Hedera helix</u>	<u>30</u>	<u>YES</u>	<u>FACU</u>	
2. <u>Polystichum munitum</u>	<u>10</u>	<u>YES</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>40</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>10 feet</u>)				
1. _____				
2. _____				
		= Total Cover		
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (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:
 Dominance Test is >50%
 Prevalence Index is ≤3.0¹
 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 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:

SOIL

Sampling Point: DP6

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		
0-6	10YR 2/2	100					SALO	SLIGHTLY MOIST DURING INVESTIGATION
6-12	2.5Y 4/3	80	2.5Y 3/3	20			SALO	DRY DURING INVESTIGATION

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.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
<input type="checkbox"/> Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	

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

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland name or number Off-Site Wetland A

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Off-Site Wetland A (Westhill Inc.--Leahy Property) Date of site visit: 2/12/2020

Rated by Scott Spooner (Wetlands & Wildlife, Inc.) Trained by Ecology? Yes No Date of training 10/05 & 4/15

HGM Class used for rating Slope Wetland has multiple HGM classes? Y N

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY IV (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

 Category I – Total score = 23 - 27

 Category II – Total score = 20 - 22

 Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
<i>Circle the appropriate ratings</i>										
Site Potential	H	M	(L)	H	M	(L)	H	M	(L)	
Landscape Potential	H	(M)	L	H	(M)	L	H	M	(L)	
Value	(H)	M	L	H	M	(L)	H	(M)	L	TOTAL
Score Based on Ratings	6			4			4			14

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

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,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
Interdunal	I II III IV
None of the above	<input checked="" type="checkbox"/>

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	D 2.2, D 5.2	
Map of the contributing 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 undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1
Hydroperiods	H 1.2	2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	3
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to figure above</i>)	S 4.1	3
Boundary of 150 ft buffer (<i>can be added to another figure</i>)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	6

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: <i>(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)</i>		
Slope is 1% or less	points = 3	1
Slope is > 1%-2%	points = 2	
Slope is > 2%-5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic <i>(use NRCS definitions)</i> : Yes = 3 No = 0		0
S 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. <i>Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.</i>		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	1
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1	Add the points in the boxes above	2

Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?		
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources _____	Yes = 1 No = 0	0
Total for S 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: 1-2 = M 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?		
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? <i>At least one aquatic resource in the basin is on the 303(d) list.</i>	Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES if there is a TMDL for the basin in which unit is found.</i>	Yes = 2 No = 0	2
Total for S 3	Add the points in the boxes above	3

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number Off-Site Wetland A

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?

S 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. <i>Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.</i> Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	0
---	---

Rating of Site Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = 1 No = 0	1
---	---

Rating of Landscape Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?

S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther down-gradient points = 1 No flooding problems anywhere downstream points = 0	0
S 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	0
Total for S 6 Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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 Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- Aquatic bed 4 structures or more: points = 4
 - Emergent 3 structures: points = 2
 - Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1
 - Forested (areas where trees have > 30% cover) 1 structure: points = 0
- If the unit has a Forested class, check if:*
- The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- Permanently flooded or inundated 4 or more types present: points = 3
- Seasonally flooded or inundated 3 types present: points = 2
- Occasionally flooded or inundated 2 types present: points = 1
- Saturated only 1 type present: points = 0
- Permanently flowing stream or river in, or adjacent to, the wetland
- Seasonally flowing stream in, or adjacent to, the wetland
- Lake Fringe wetland** **2 points**
- Freshwater tidal wetland** **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft².

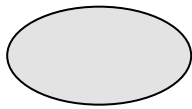
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle

- If you counted: > 19 species points = 2
- 5 - 19 species points = 1
- < 5 species points = 0

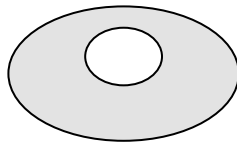
1

H 1.4. Interspersion of habitats

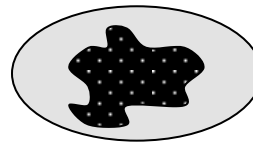
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



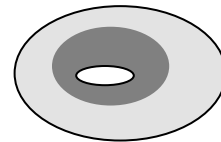
None = 0 points



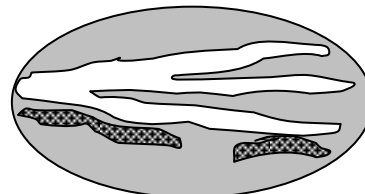
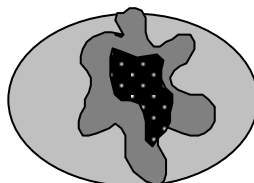
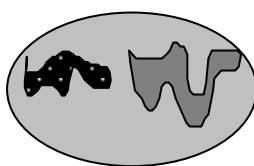
Low = 1 point



Moderate = 2 points



All three diagrams in this row are **HIGH** = 3points



1

Wetland name or number Off-Site Wetland A

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i></p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh > 4 in) within the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>		2
Total for H 1	Add the points in the boxes above	5

Rating of Site Potential If score is: 15-18 = H 7-14 = M 0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?			
<p>H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>).</p> <p><i>Calculate:</i> % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0</u> = <u>0</u> %</p> <p>If total accessible habitat is:</p> <p>> 1/3 (33.3%) of 1 km Polygon points = 3</p> <p>20-33% of 1 km Polygon points = 2</p> <p>10-19% of 1 km Polygon points = 1</p> <p>< 10% of 1 km Polygon points = 0</p>			0
<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0.75</u> = <u>0.75</u> %</p> <p>Undisturbed habitat > 50% of Polygon points = 3</p> <p>Undisturbed habitat 10-50% and in 1-3 patches points = 2</p> <p>Undisturbed habitat 10-50% and > 3 patches points = 1</p> <p>Undisturbed habitat < 10% of 1 km Polygon points = 0</p>			0
<p>H 2.3. Land use intensity in 1 km Polygon: If</p> <p>> 50% of 1 km Polygon is high intensity land use points = (- 2)</p> <p>≤ 50% of 1 km Polygon is high intensity points = 0</p>			-2
Total for H 2	Add the points in the boxes above	-2	

Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?			
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: points = 2</p> <p><input type="checkbox"/> It has 3 or more priority habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW priority species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p><input checked="" type="checkbox"/> Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1</p> <p>Site does not meet any of the criteria above points = 0</p>			1

Rating of Value If score is: 2 = H 1 = M 0 = L *Record the rating on the first page*

WDFW Priority Habitats

Priority 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://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are within 330 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 Stands:** 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*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/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, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – 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.
- **Westside Prairies:** 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 p. 161 – see web link above*).
- ✓ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats 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 soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ✓ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Off-Site Wetland B (Westhill Inc.--Leahy Property) Date of site visit: 2/12/2020

Rated by Scott Spooner (Wetlands & Wildlife, Inc.) Trained by Ecology? Yes No Date of training 10/05 & 4/15

HGM Class used for rating Slope Wetland has multiple HGM classes? Y N

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY IV (based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

Category II – Total score = 20 - 22

Category III – Total score = 16 - 19

Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
<i>Circle the appropriate ratings</i>										
Site Potential	H	M	(L)	H	M	(L)	H	M	(L)	
Landscape Potential	H	(M)	L	H	M	(L)	H	M	(L)	
Value	(H)	M	L	H	M	(L)	H	(M)	L	TOTAL
Score Based on Ratings	6			3			4			13

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

9 = H,H,H

8 = H,H,M

7 = H,H,L

7 = H,M,M

6 = H,M,L

6 = M,M,M

5 = H,L,L

5 = M,M,L

4 = M,L,L

3 = L,L,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
Interdunal	I II III IV
None of the above	<input checked="" type="checkbox"/>

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	D 2.2, D 5.2	
Map of the contributing 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 undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1
Hydroperiods	H 1.2	2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	3
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to figure above</i>)	S 4.1	3
Boundary of 150 ft buffer (<i>can be added to another figure</i>)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	6

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?			
S 1.1. Characteristics of the average slope of the wetland: <i>(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)</i>			
Slope is 1% or less	points = 3		1
Slope is > 1%-2%	points = 2		
Slope is > 2%-5%	points = 1		
Slope is greater than 5%	points = 0		
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic <i>(use NRCS definitions)</i> : Yes = 3 No = 0			0
S 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. <i>Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.</i>			
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6		1
Dense, uncut, herbaceous plants > ½ of area	points = 3		
Dense, woody, plants > ½ of area	points = 2		
Dense, uncut, herbaceous plants > ¼ of area	points = 1		
Does not meet any of the criteria above for plants	points = 0		
Total for S 1		Add the points in the boxes above	1

Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?			
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?			
	Yes = 1 No = 0		1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?			
Other sources _____	Yes = 1 No = 0		0
Total for S 2		Add the points in the boxes above	1

Rating of Landscape Potential If score is: 1-2 = M 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?			
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?			
	Yes = 1 No = 0		0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? <i>At least one aquatic resource in the basin is on the 303(d) list.</i>			
	Yes = 1 No = 0		1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES if there is a TMDL for the basin in which unit is found.</i>			
	Yes = 2 No = 0		2
Total for S 3		Add the points in the boxes above	3

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

Wetland name or number Off-Site Wetland B

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?

S 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. <i>Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.</i> Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	0
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Rating of Site Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = 1 No = 0	0
---	---

Rating of Landscape Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?

S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther down-gradient points = 1 No flooding problems anywhere downstream points = 0	0
S 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	0
Total for S 6 Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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 Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- Aquatic bed 4 structures or more: points = 4
 - Emergent 3 structures: points = 2
 - Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1
 - Forested (areas where trees have > 30% cover) 1 structure: points = 0
- If the unit has a Forested class, check if:*
- The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

1

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- Permanently flooded or inundated 4 or more types present: points = 3
- Seasonally flooded or inundated 3 types present: points = 2
- Occasionally flooded or inundated 2 types present: points = 1
- Saturated only 1 type present: points = 0
- Permanently flowing stream or river in, or adjacent to, the wetland
- Seasonally flowing stream in, or adjacent to, the wetland
- Lake Fringe wetland** **2 points**
- Freshwater tidal wetland** **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft².

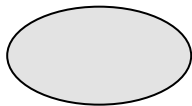
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle

- If you counted: > 19 species points = 2
- 5 - 19 species points = 1
- < 5 species points = 0

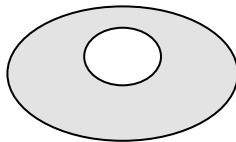
1

H 1.4. Interspersion of habitats

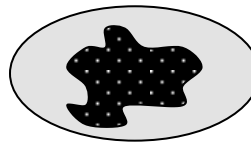
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



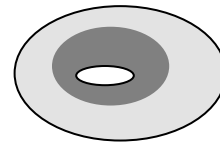
None = 0 points



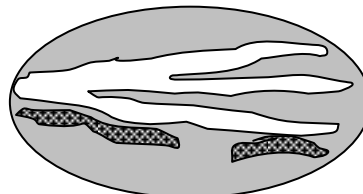
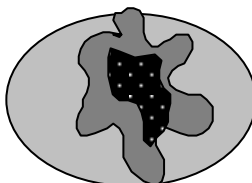
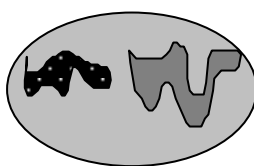
Low = 1 point



Moderate = 2 points



All three diagrams in this row are **HIGH** = 3points



1

Wetland name or number Off-Site Wetland B

<p>H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> <input type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). <input type="checkbox"/> Standing snags (dbh > 4 in) within the wetland <input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>) <input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>		2
Total for H 1	Add the points in the boxes above	6

Rating of Site Potential If score is: 15-18 = H 7-14 = M 0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>		
<p>H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). Calculate: % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0</u> = <u>0</u> % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0</p>		0
<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0.75</u> = <u>0.75</u> % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0</p>		0
<p>H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0</p>		-2
Total for H 2	Add the points in the boxes above	-2

Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i> Site meets ANY of the following criteria: points = 2 <input type="checkbox"/> It has 3 or more priority habitats within 100 m (see next page) <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) <input type="checkbox"/> It is mapped as a location for an individual WDFW priority species <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan <input checked="" type="checkbox"/> Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0</p>		1

Rating of Value If score is: 2 = H 1 = M 0 = L *Record the rating on the first page*

WDFW Priority Habitats

Priority 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://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are within 330 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 Stands:** 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*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/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, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – 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.
- **Westside Prairies:** 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 p. 161 – see web link above*).
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats 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 soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ✓ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Off-Site Wetland C (Westhill Inc.--Leahy Property) Date of site visit: 2/12/2020

Rated by Scott Spooner (Wetlands & Wildlife, Inc.) Trained by Ecology? Yes No Date of training 10/05 & 4/15

HGM Class used for rating Slope Wetland has multiple HGM classes? Y N

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map Google Earth

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

1. Category of wetland based on FUNCTIONS

 Category I – Total score = 23 - 27

 Category II – Total score = 20 - 22

Category III – Total score = 16 - 19

 Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
<i>Circle the appropriate ratings</i>										
Site Potential	H	(M)	L	H	M	(L)	H	M	(L)	
Landscape Potential	H	(M)	L	H	(M)	L	H	M	(L)	
Value	(H)	M	L	H	M	(L)	(H)	M	L	TOTAL
Score Based on Ratings	7		4		5		16			

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

- 9 = H,H,H
- 8 = H,H,M
- 7 = H,H,L
- 7 = H,M,M
- 6 = H,M,L
- 6 = M,M,M
- 5 = H,L,L
- 5 = M,M,L
- 4 = M,L,L
- 3 = L,L,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
Interdunal	I II III IV
None of the above	<input checked="" type="checkbox"/>

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	D 2.2, D 5.2	
Map of the contributing 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 undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1
Hydroperiods	H 1.2	2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	3
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to figure above</i>)	S 4.1	3
Boundary of 150 ft buffer (<i>can be added to another figure</i>)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	6

SLOPE WETLANDS**Water Quality Functions** - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: <i>(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)</i>		
Slope is 1% or less	points = 3	1
Slope is > 1%-2%	points = 2	
Slope is > 2%-5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic <i>(use NRCS definitions)</i> : Yes = 3 No = 0		0
S 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. <i>Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.</i>		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	6
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1	Add the points in the boxes above	7

Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?		
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources _____	Yes = 1 No = 0	0
Total for S 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: 1-2 = M 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?		
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? <i>At least one aquatic resource in the basin is on the 303(d) list.</i>	Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES if there is a TMDL for the basin in which unit is found.</i>	Yes = 2 No = 0	2
Total for S 3	Add the points in the boxes above	3

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?

S 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. <i>Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.</i> Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions	points = 1 points = 0	0
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Rating of Site Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff?	Yes = 1 No = 0	1
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Rating of Landscape Potential If score is: 1 = M 0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?

S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream	points = 2 points = 1 points = 0	0
S 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	0
Total for S 6	Add the points in the boxes above	0

Rating of Value If score is: 2-4 = H 1 = M 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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 Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- Aquatic bed 4 structures or more: points = 4
 - Emergent 3 structures: points = 2
 - Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1
 - Forested (areas where trees have > 30% cover) 1 structure: points = 0
- If the unit has a Forested class, check if:*
- The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- Permanently flooded or inundated 4 or more types present: points = 3
- Seasonally flooded or inundated 3 types present: points = 2
- Occasionally flooded or inundated 2 types present: points = 1
- Saturated only 1 type present: points = 0
- Permanently flowing stream or river in, or adjacent to, the wetland
- Seasonally flowing stream in, or adjacent to, the wetland
- Lake Fringe wetland** **2 points**
- Freshwater tidal wetland** **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft².

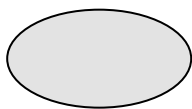
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle

- If you counted: > 19 species points = 2
- 5 - 19 species points = 1
- < 5 species points = 0

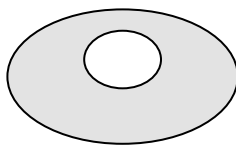
1

H 1.4. Interspersion of habitats

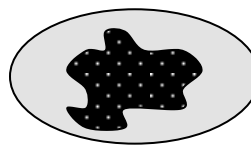
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



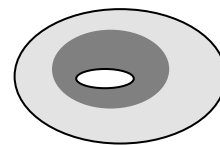
None = 0 points



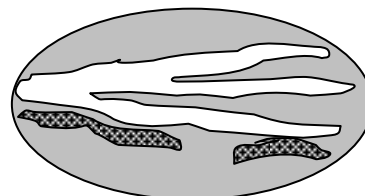
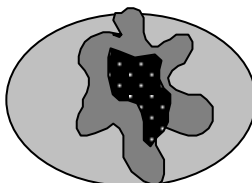
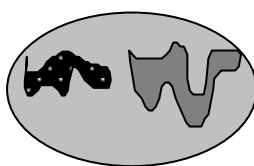
Low = 1 point



Moderate = 2 points



All three diagrams in this row are **HIGH** = 3points



1

Wetland name or number Off-Site Wetland C

<p>H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> <input type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). <input type="checkbox"/> Standing snags (dbh > 4 in) within the wetland <input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>) <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>		1
Total for H 1	Add the points in the boxes above	4

Rating of Site Potential If score is: 15-18 = H 7-14 = M 0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>		
<p>H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). Calculate: % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0</u> = <u>0</u> % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0</p>		0
<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0.75</u> = <u>0.75</u> % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0</p>		0
<p>H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0</p>		-2
Total for H 2	Add the points in the boxes above	-2

Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i> Site meets ANY of the following criteria: points = 2 <input checked="" type="checkbox"/> It has 3 or more priority habitats within 100 m (see next page) <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) <input type="checkbox"/> It is mapped as a location for an individual WDFW priority species <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0</p>		2

Rating of Value If score is: 2 = H 1 = M 0 = L *Record the rating on the first page*

WDFW Priority Habitats

Priority 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://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are within 330 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 Stands:** 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*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/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, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – 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.
- **Westside Prairies:** 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 p. 161 – see web link above*).
- ✓ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats 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 soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ✓ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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



LEGEND

- WETLAND
- STREAM
- BOUNDARY OF AREA WITHIN 150 FEET OF WETLAND
- SCRUB-SHRUB CLASS
- EMERGENT CLASS
- FORESTED CLASS



BOUNDARY OF AREA WITHIN 150-FT OF WETLAND A

OFF-SITE WETLAND A (CATEGORY IV)

OFF-SITE WETLAND B (CATEGORY IV)

EMERGENT CLASS

FORESTED CLASS

BOUNDARY OF AREA WITHIN 150-FT OF WETLAND B

EMERGENT CLASS

SCRUB-SHRUB CLASS

BOUNDARY OF AREA WITHIN 150-FT OF WETLAND C

EMERGENT CLASS

OFF-SITE WETLAND C (CATEGORY III)

MAP SHEET: WR1.00

W&W Job: N2004
Drawn By: Matthew Fineman
Date: 5/25/2021
Revision #: 2

WETLAND RATING FORM--FIGURE 1
COWARDIN CLASSES WITHIN WETLANDS
INCORPORATED CITY OF MERCER ISLAND
TAX PARCEL #004610-0152

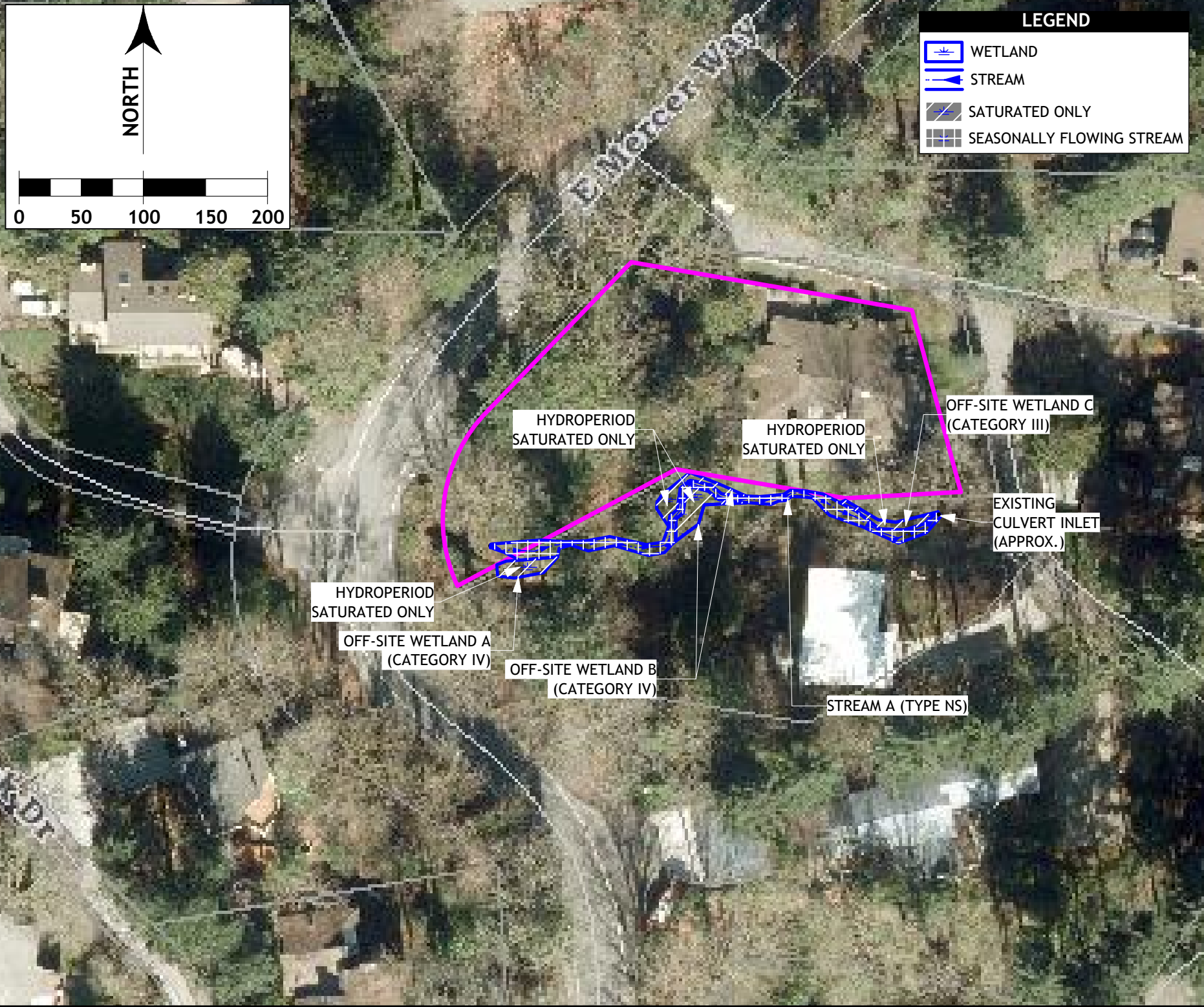
PREPARED FOR:
Westhill, Inc.
(Attn: Chuck Russe II)
P.O. Box 306
Woodinville, WA 98072





LEGEND	
	WETLAND
	STREAM
	SATURATED ONLY
	SEASONALLY FLOWING STREAM

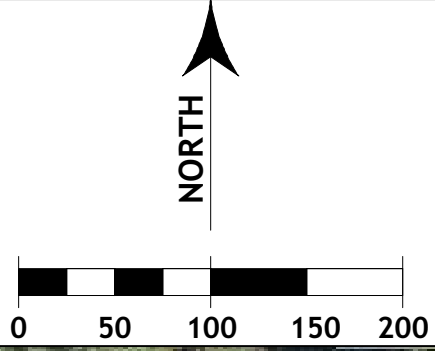
MAP
SHEET: WR2.00
 W&W Job: N2004
 Drawn By: Matthew Fineman
 Date: 5/25/2021
 Revision #: 2



WETLAND RATING FORM--FIGURE 2
 HYDROPERIODS WITHIN WETLANDS
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL #004610-0152

PREPARED FOR:
 Westhill, Inc.
 (Attn: Chuck Russe II)
 P.O. Box 306
 Woodinville, WA 98072





LEGEND

- WETLAND
- DENSE TREES, SHRUBS, AND HERBACEOUS PLANTS

PLEASE NOTE: WETLAND A AND WETLAND B DO NOT HAVE PLANT COVER OF DENSE TREES, SHRUBS, AND HERBACEOUS PLANTS OR PLANT COVER OF DENSE, RIGID TREES, SHRUBS AND HERBACEOUS PLANTS



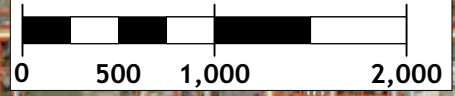
MAP SHEET: WR3.00

W&W Job: N2004
 Drawn By: Matthew Fineman
 Date: 5/25/2021
 Revision #: 2

WETLAND RATING FORM--FIGURE 3
 PLANT COVER WITHIN WETLANDS
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL #004610-0152

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 Westhill, Inc.
 (Attn: Chuck Russe II)
 P.O. Box 306
 Woodinville, WA 98072





LEGEND

- WETLAND
- LOW/MODERATE LAND USE INTENSITY

NOTE: UNHATCHED AREAS ARE CONSIDERED HIGH LAND USE INTENSITY (COMMERCIAL OR RESIDENTIAL <1 ACRE)

PROJECT SITE

WETLAND A (CATEGORY IV)

LOW/MODERATE LAND USE INTENSITY (>1 ACRE PER HOUSE)

THIS DASHED CIRCLE REPRESENTS ~1 KM FROM WETLAND UNIT BOUNDARIES (QUESTION H2 ON RATING FORM)

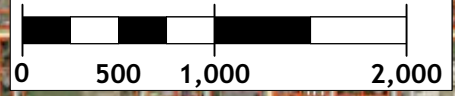
MAP SHEET: WR4.10

W&W Job: N2004
 Drawn By: Matt Fineman
 Date: 5/25/2021
 Revision #: 2

WETLAND RATING FORM--FIGURE 4
 HABITAT QUALITY WITHIN 1KM OF WETLAND A
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL #004610-0152

PREPARED FOR:
 Westhill, Inc.
 (Attn: Chuck Russell)
 P.O Box 306
 Woodinville, WA 98072

WETLANDS & WILDLIFE
 Environmental Consulting



LEGEND

- WETLAND
- LOW/MODERATE LAND USE INTENSITY

NOTE: UNHATCHED AREAS ARE CONSIDERED HIGH LAND USE INTENSITY (COMMERCIAL OR RESIDENTIAL <1 ACRE)

PROJECT SITE

WETLAND B (CATEGORY IV)

LOW/MODERATE LAND USE INTENSITY (>1 ACRE PER HOUSE)

Mercer Island

THIS DASHED CIRCLE REPRESENTS ~1 KM FROM WETLAND UNIT BOUNDARIES (QUESTION H2 ON RATING FORM)

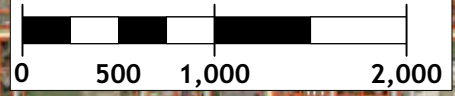
MAP SHEET: WR4.20

W&W Job: N2004
Drawn By: Matt Fineman
Date: 5/25/2021
Revision #: 2

WETLAND RATING FORM--FIGURE 4
 HABITAT QUALITY WITHIN 1KM OF WETLAND B
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL #004610-0152

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 Westhill, Inc.
 (Attn: Chuck Russell)
 P.O Box 306
 Woodinville, WA 98072

WETLANDS & WILDLIFE
 Environmental Consulting



LEGEND

- WETLAND
- LOW/MODERATE LAND USE INTENSITY

NOTE: UNHATCHED AREAS ARE CONSIDERED HIGH LAND USE INTENSITY (COMMERCIAL OR RESIDENTIAL <1 ACRE)

PROJECT SITE

OFF-SITE WETLAND C (CATEGORY III)

LOW/MODERATE LAND USE INTENSITY (>1 ACRE PER HOUSE)

THIS DASHED CIRCLE REPRESENTS ~1 KM FROM WETLAND UNIT BOUNDARIES (QUESTION H2 ON RATING FORM)

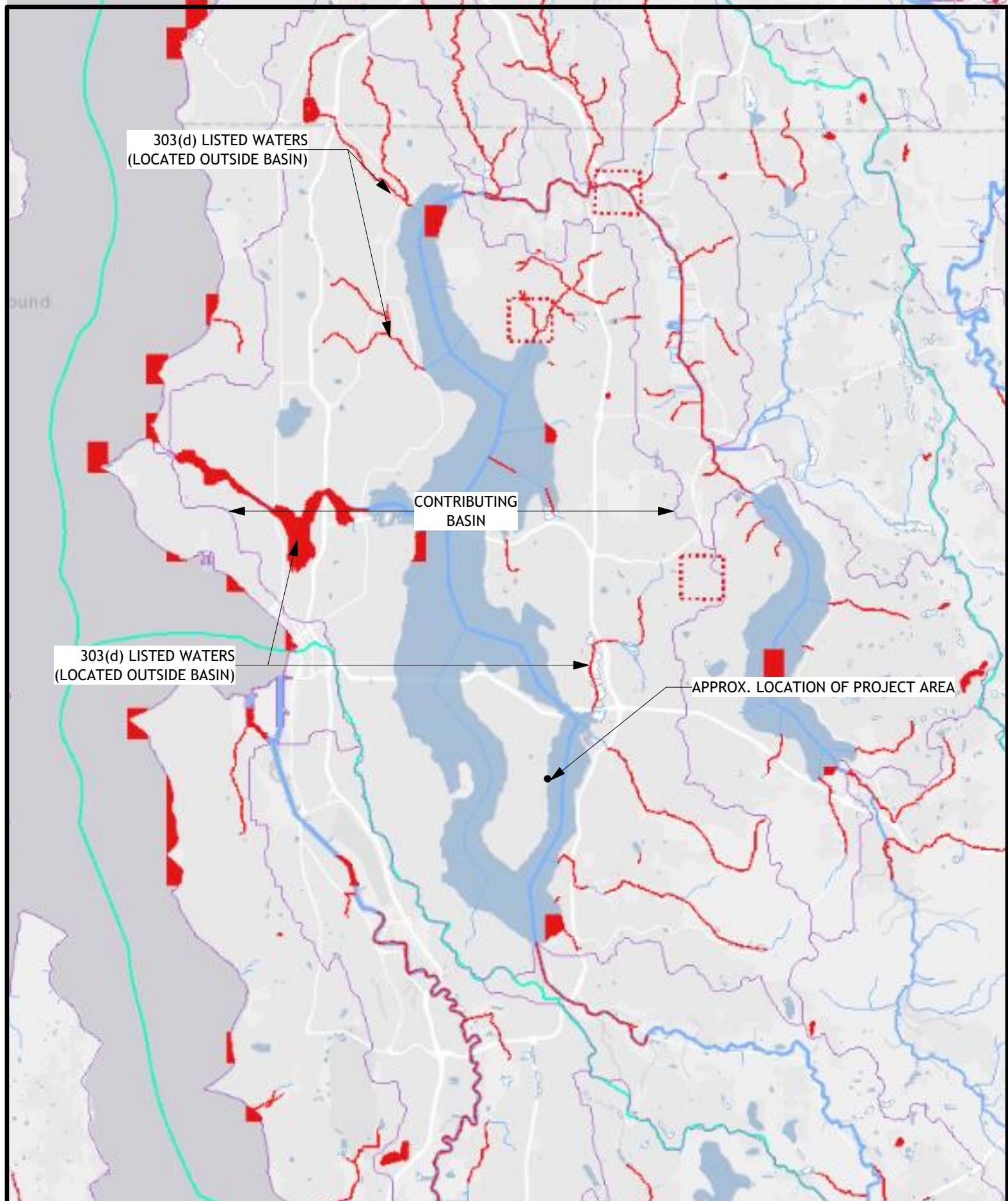
MAP SHEET: WR4.30

W&W Job: N2004
 Drawn By: Matt Fineman
 Date: 5/25/2021
 Revision #: 2

WETLAND RATING FORM--FIGURE 4
 HABITAT QUALITY WITHIN 1KM OF WETLAND C
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL #004610-0152

PREPARED FOR:
 Westhill, Inc.
 (Attn: Chuck Russell)
 P.O Box 306
 Woodinville, WA 98072





303(d) LISTED WATERS
(LOCATED OUTSIDE BASIN)

CONTRIBUTING
BASIN

303(d) LISTED WATERS
(LOCATED OUTSIDE BASIN)

APPROX. LOCATION OF PROJECT AREA

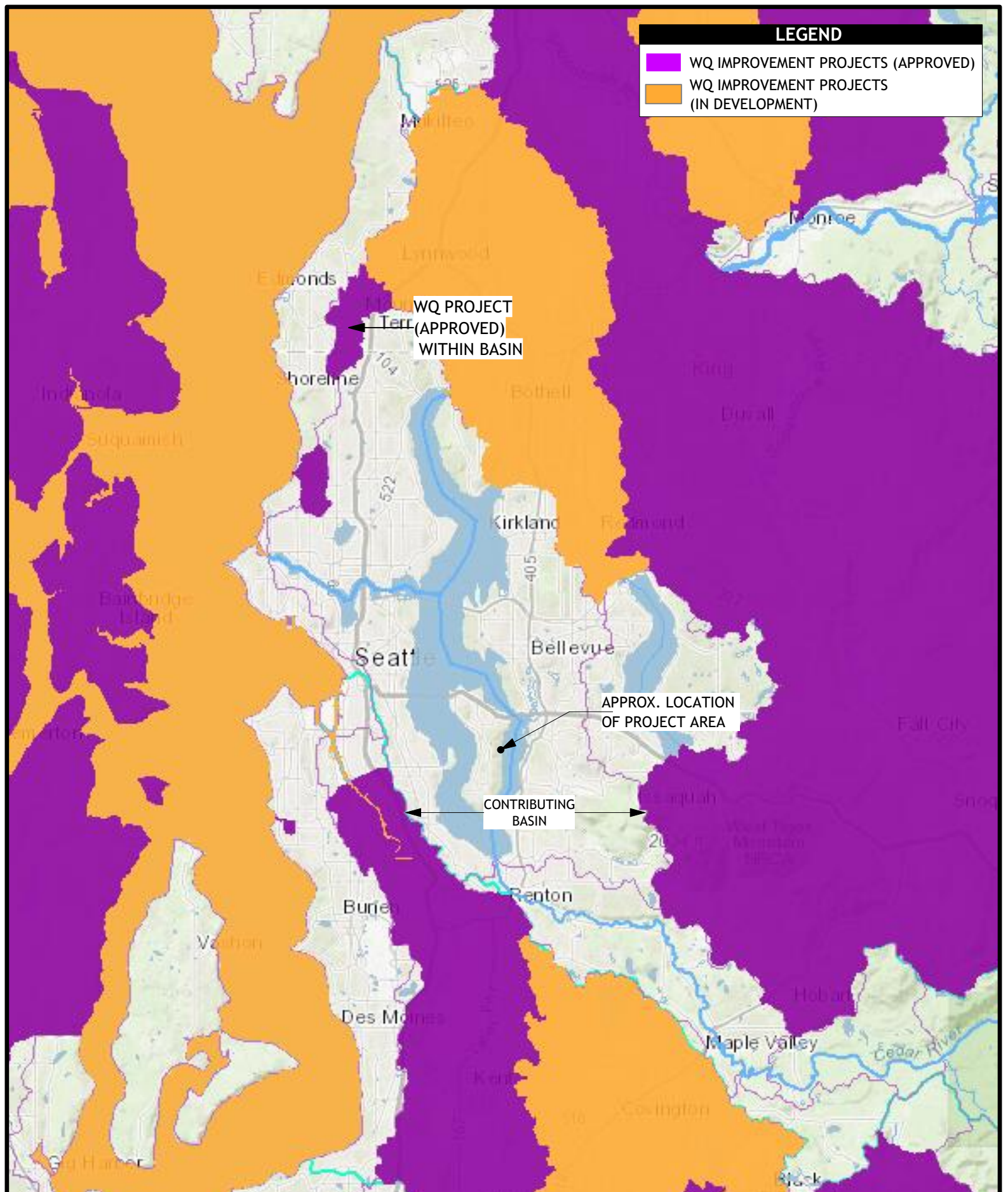


PREPARED FOR:
Westhill, Inc.
(Attn: Chuck Russell)
P.O Box 306
Woodinville, WA 98072

WETLAND RATING FORM--FIGURE 5
SCREEN SHOT OF 303(d) LISTED WATERS
INCORPORATED CITY OF MERCER ISLAND
TAX PARCEL #004610-0152

W&W Job: N2004
Drawn By:
Matthew Fineman
Date: 5/25/2021
Revision #: 2

**MAP
SHEET:
WR5.00**



LEGEND

- WQ IMPROVEMENT PROJECTS (APPROVED)
- WQ IMPROVEMENT PROJECTS (IN DEVELOPMENT)

WQ PROJECT (APPROVED) WITHIN BASIN

APPROX. LOCATION OF PROJECT AREA

CONTRIBUTING BASIN



PREPARED FOR:
Westhill, Inc.
(Attn: Chuck Russell)
P.O Box 306
Woodinville, WA 98072

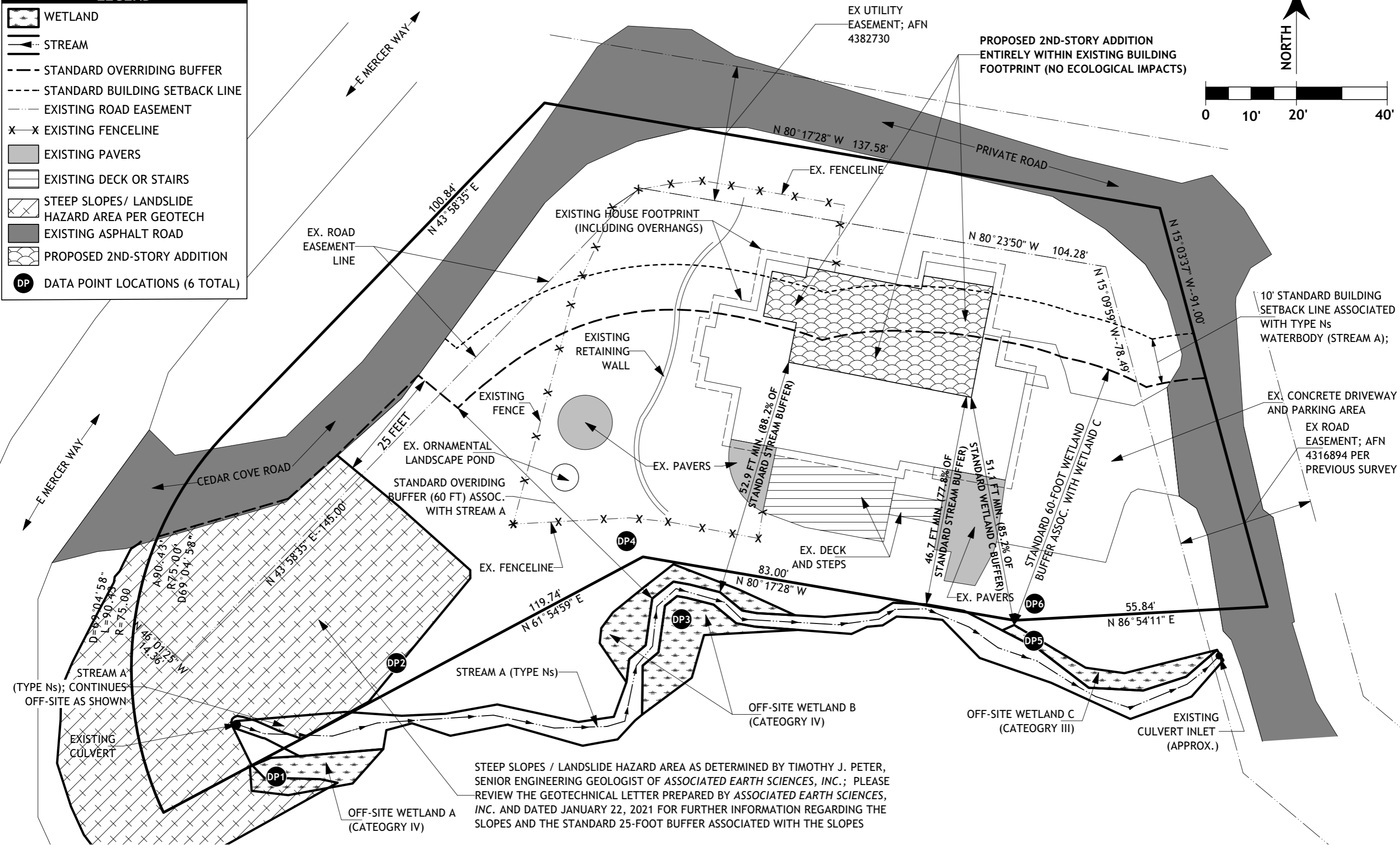
WETLAND RATING FORM--FIGURE 6
SCREEN SHOT OF WATER QUALITY IMPROVEMENT PROJECTS IN PROJECT VICINITY
INCORPORATED CITY OF MERCER ISLAND
TAX PARCEL #004610-0152

W&W Job: N2004
Drawn By: Matthew Fineman
Date: 5/25/2021
Revision #: 2

MAP SHEET: WR6.00

LEGEND

- WETLAND
- STREAM
- STANDARD OVERRIDING BUFFER
- STANDARD BUILDING SETBACK LINE
- EXISTING ROAD EASEMENT
- EXISTING FENCELINE
- EXISTING PAVERS
- EXISTING DECK OR STAIRS
- STEEP SLOPES/ LANDSLIDE HAZARD AREA PER GEOTECH
- EXISTING ASPHALT ROAD
- PROPOSED 2ND-STORY ADDITION
- DATA POINT LOCATIONS (6 TOTAL)



NORTH

NOTES: THE ON-SITE FEATURES / PROPERTY BOUNDARY AS DEPICTED ON THIS MAP IS DERIVED FROM A BOUNDARY SURVEY OBTAINED FROM *ACREAGE LAND SURVYING, LLC*, A LICENSED PROFESSIONAL LAND SURVEY COMPANY. THE ON-SITE ORDINARY HIGH WATER MARKS (OHWM) DEPICTED WERE DELINEATED BY *WETLANDS & WILDLIFE, INC.* USING BRIGHT PINK FLAGS AND THEN LOCATED BY *ACREAGE LAND SURVYING*. FOR PLACEMENT ON THIS MAP. PLEASE VIEW THE ASSOCIATED CRITICAL AREAS STUDY FOR FURTHER DISCUSSION REGARDING THIS CRITICAL AREAS EVALUATION. OFF-SITE CRITICAL AREAS SHOWN ARE, DERIVED FROM A SITEPLAN BY *COUPE ARCHITECTURE*. THIS MAP IS INTENDED FOR SUBMITTAL TO THE CITY OF MERCER ISLAND FOR REVIEW OF THE ASSOCIATED CRITICAL AREAS STUDY. NO OTHER USE IS INTENDED AT THIS TIME. IF ANY QUESTIONS ARISE REGARDING THIS MAP, PLEASE CONTACT *WETLANDS & WILDLIFE, INC.* DIRECTLY.

MAP SHEET: CA 1.00

WEW Job: N2004
 Drawn By: Matthew Fineman
 Date: 5/25/2021
 Revision #: 2

CRITICAL AREAS OVERVIEW MAP
 WESTHILL, INC. -- LEAHY PROPERTY
 INCORPORATED CITY OF MERCER ISLAND
 TAX PARCEL NUMBER 004610-0152

PREPARED FOR:
 Westhill, Inc.
 RE: Leahy Project
 P.O. Box 306
 Woodinville, WA 98072

PREPARED BY:
 Wetlands & Wildlife, Inc.
 19410--179th Court NE
 Woodinville, WA 98077
 Phone: (425) 337-6450
 Email: scott@wetlands-wildlife.com

WETLANDS & WILDLIFE
 Environmental Consulting