



CRITICAL AREAS STUDY & BUFFER ENHANCEMENT PLAN FOR

Margaret Estates - 9706 55th Avenue NE

Tax Parcel No. 30051500301800.

Acre Project #21102

Prepared by:

Acre Environmental Consulting, LLC.

PO Box 55248

Shoreline, WA 98155

(206) 450-7746

For:

2812 Architecture

2812 Colby Avenue

Everett, WA 98201

August 30, 2022

TABLE OF CONTENTS

SITE DESCRIPTION	2
PROJECT DESCRIPTION	2
METHODOLOGIES OF CRITICAL AREAS EVALUATION	3
BOUNDARY DETERMINATION FINDINGS	4
BUILDING SETBACKS	6
EXISTING FUNCTIONS AND VALUES ANALYSIS	6
BUFFER ENHANCEMENT	7
GRASS SEEDING	8
PLANTING NOTES	8
PROJECT SUCCESS AND COMPLIANCE	9
PROJECT MONITORING PROGRAM	10
MAINTENANCE	11
CONTINGENCY PLAN	11
REQUIRED FINANCIAL GUARANTEE	12
POST PROJECT FUNCTIONS AND VALUES	12
TERMS & CONDITIONS	13
REFERENCES	14

ATTACHMENTS:

1. VICINITY MAP
2. WETLAND DETERMINATION DATA FORMS (4 DATA POINTS ON-SITE)
3. CRITICAL AREAS STUDY MAP SHEET CA1.00

SITE DESCRIPTION

On February 8, 2022 *Acre Environmental Consulting, LLC* visited the approximate 4.85-acre site located at 9706 55th Avenue NE in the City of Marysville, Washington. The site is further located as a portion of Section 15, Township 30N, Range 5E, W.M. The parcel number for this property is 30051500301800. The purpose of this site visit was to locate regulated critical areas on and adjacent to the subject site. Surrounding land use is comprised of residential development to the south and west with pasture to the north and forest to the east.

Access to this undeveloped site can be gained from 55th Avenue NE located along the eastern boundary of the property or from 97th Street NE which borders the southwestern corner. This property is comprised of maintained pasture and is generally flat with a slight west aspect. A Category III wetland and associated Type Ns stream are located in the western portion of the property and extend off-site to the north. In the City of Marysville, Category III wetlands receive a 75-foot protective buffer measured from the delineated wetland edge while Type Ns streams receive a 50-foot buffer measured from the ordinary high water mark of the stream. Per MMC22E.010.220(3)b, "any stream adjoined by a wetland or other adjacent habitat area shall have the buffer which applies to the wetland or other habitat area unless the stream buffer requirements are more expansive". In this instance, the 75-foot stream buffer is the more restrictive buffer.

PROJECT DESCRIPTION

The applicant is proposing to construct a multi-unit residential apartment building with associated infrastructure on the eastern portion of the property. No portion of the proposed development will occur within the subject critical areas or buffers and the proposed building will be located greater than fifteen feet from the edge of the buffer (outside of the building setback required by MMC22E.010.380). By designing this project to avoid all impacts to critical areas and buffers, no adverse environmental impacts and no net loss of ecological functions will occur as a result of this proposal.

To comply with MMC 22E.010.220(2)(a - c), the applicant is proposing to enhance the on-site wetland and stream buffer. This will result in a total of 32,400 square feet (0.74 acres) of buffer enhancement. Buffer enhancement will consist of removing all invasive species and planting native trees and shrubs.

Finally, the applicant intends to install a two rail fence and signs around the perimeter of the buffer as required by MMC 22E.010.370. The signs and fencing will serve to demarcate the limits of the development and discourage intrusion in to the adjacent critical areas.

METHODOLOGIES OF CRITICAL AREAS DETERMINATION

On February 8, 2022 *Acre Environmental Consulting, LLC* conducted a site visit to locate wetlands and streams on and adjacent to the subject site. The methods used for delineating, classifying, and rating the critical areas in the project area are consistent with current Federal, State, and City of Marysville requirements. At the time of our February 8, 2022 site investigation, the weather was cloudy with a temperature of 46 degrees Fahrenheit.

The ordinary high water mark of the stream on the subject site was determined using the Washington State Department of Ecology guidance document titled Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State (Publication No. 16-06-029), dated October 2016.

The site was assessed for the presence of wetlands using the routine methodologies described in 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 Corps Regional Supplement”). The Corps Regional Supplement is designed for concurrent use with the 1987 Corps Wetland Delineation Manual and all subsequent versions. The 2010 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, the Corps Regional Supplement takes precedence over the Corps Manual for applications in the Western Mountains, Valleys, and Coast Region.

According to the federal methodologies described above, identification of wetlands is based on a three-factor approach involving indicators of hydrophytic vegetation, hydric soils, and the 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 procedure 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.) The final step is determining if wetland hydrology exists in the area examined under the first two steps.

Per industry standards, *Acre Environmental Consulting, LLC* examined the entire project site. Per current City of Marysville requirements, *Acre Environmental Consulting, LLC* also assessed adjacent properties within 200 feet of the proposed project limits, to the maximum extent possible without entering adjacent properties. While a detailed assessment of Critical Areas on adjacent properties was not possible due to the lack of legal access, *Acre Environmental Consulting, LLC* conducted a review of all available information to assess the presence of off-site Critical Areas within 200 feet of the subject site. This review is necessary to determine if any regulated Critical Areas exist off-site which would cause associated protective buffers to extend onto the property and affect the development proposal.

In addition to on-site field reviews, *Acre Environmental Consulting, LLC* examined aerial photographs and topographical data on Snohomish County's PDS Map Portal system. 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.

BOUNDARY DETERMINATION FINDINGS

The subject wetland and stream were classified according to the U.S. Fish and Wildlife Service (USFWS) Cowardin system Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979) and rated, by categories, according to the Washington State Department of Ecology Wetland Rating Form for Western Washington: 2014 Update, as required by the City of Marysville Municipal Code, Chapter 22E.010 (Critical Areas Management). Buffers are also determined by this chapter.

Wetland A

HGM Class: Depressional

Cowardin: Palustrine, Forested wetland, Broad-leaved Deciduous, Seasonally Flooded /Saturated (PFO1E)

Ecology Rating: Category III

City of Marysville Rating: Category III, 75' Buffer

Wetland A is located in the western portion of the property and extends off-site to the north. This hydrogeomorphic (HGM) class depressional wetland received a total score for functions of 19 points (6 points for Water Quality Functions, 7 points for Hydrologic Functions, and 6 points for Habitat Functions) on the DOE Wetland Rating Form for Western Washington: 2014 Update. Wetlands with scores between 16 and 19 points for all functions are classified as Category III wetlands per MMC 22E.010.060. In the City of Marysville, Category III wetlands typically receive

75-foot protective buffers measured from their delineated edge.

Vegetation in the on-site portion of this wetland is comprised of maintained pasture represented by colonial bentgrass (*Agrostis capillaris*, Fac), creeping buttercup (*Ranunculus repens*, Fac), tall fescue (*Schedonorus arundinaceus*, Fac), reed canarygrass (*Phalaris arundinacea*, FacW), and curly dock (*Rumex crispus*, Fac). Vegetation in the portion of this wetland located north of the subject site is represented by a canopy of black cottonwood (*Populus balsamifera*, Fac) with red osier dogwood (*Cornus alba*, FacW), Sitka willow (*Salix sitchensis*, FacW), hardhack (*Spiraea douglasii*, FacW), and slough sedge (*Carex obnupta*, Obl), in the understory. Typical soils in this wetland have a Munsell color of very dark gray (10YR 3/1) with redoximorphic features of dark yellowish brown (10YR 4/4) and brown (10YR 5/3), and a texture of sandy loam from 0 to 18 inches below the surface. Soils in this wetland were saturated to the surface during our February 8, 2022 site visit.

Stream A – Type Ns

Cowardin: Riverine, Intermittent, Unconsolidated Bottom, Mud (R4UB3)

City of Marysville Rating: Type Ns stream, 50' Buffer

A ditch conveying wetland hydrology drains west along the northern property line and then south through the western portion of Wetland A. Because this feature conveys natural hydrology and is an open watercourse modified by man it meets the definition of a stream in the City of Marysville. This stream is located in the Allen Creek Basin but is not depicted on the [City of Marysville Quilceda-Allen Watershed Marysville Stream Classification March 2007](#) map or on any other mapping resource. In the City of Marysville, Type Ns streams receive a 50-foot protective buffer measured from the delineated ordinary high water mark of the stream.

Non - Wetland

Vegetation in the non-wetland portion of the site is primarily comprised of maintained pasture with a small patch of trees in the northeastern corner. Typical vegetation in the pasture is represented by patches of Himalayan blackberry (*Rubus armeniacus*, Fac) with colonial bentgrass (*Agrostis capillaris*, Fac), creeping buttercup (*Ranunculus repens*, Fac), reed canarygrass (*Phalaris arundinacea*, FacW), oxeye daisy (*Leucanthemum vulgare*, FacU), and English plantain (*Plantago lanceolata*, FacU). Vegetation in the northeastern corner of the site is represented by a canopy of black locust (*Robinia pseudoacacia*, FacU) and paper birch (*Betula papyrifera*, Fac), with Himalayan blackberry (*Rubus armeniacus*, Fac), colonial bentgrass (*Agrostis capillaris*, Fac), and creeping buttercup (*Ranunculus repens*, Fac), in the understory. Typical soils in the non-wetland portions of this site have a Munsell color of very dark grayish brown (10YR 3/2), with a texture of sandy loam from 0 to 18 inches below the surface. Soils were moist throughout the profile during our February 8, 2022 site visit.

NATURAL RESOURCE CONSERVATION SERVICE SOILS DESCRIPTION:

The Natural Resources Conservation Service (NRCS) mapped the subject property as being underlain by Custer fine sandy loam.

The NRSC describes Custer fine sandy loam as a very deep, poorly drained soil in basins on outwash plains. It formed in glacial outwash. Typically, the surface layer is very dark grayish brown fine sandy loam about nine inches thick. The upper part of the subsoil is loamy fine sand about 7 inches thick. Included in this unit are small areas of Indianola soils on terraces, Norma soils in upland drainageways, and Custer soils that have been partially drained. Permeability of this Custer soil is moderately slow in the discontinuous hardpan and very rapid below it. Available water capacity is low. This soil is included on the Hydric Soils List for Washington.

BUILDING SETBACKS

Per MMC22E.010.380 (Building setbacks). “Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the building setback area:

- (1) Landscaping;
- (2) Uncovered decks;
- (3) Building overhangs, if such overhangs do not extend more than 18 inches into the setback area; and
- (4) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to water quality regulations as adopted. (Ord. 2852 § 10 (Exh. A), 2011).”

EXISTING FUNCTIONS AND VALUES ANALYSIS

The methodologies for this functions and values assessment are based on professional opinion developed through past field analyses and interpretation. This assessment pertains specifically to the subject wetland, stream, and associated buffer but is typical for assessments of similar systems common to western Washington. The three main functions provided by wetlands include water quality, stormwater / hydrologic control, and wildlife habitat. Buffers serve to protect and support the functions of wetlands and streams as well as provide their own wildlife habitat, water quality, and erosion control functions.

Wetland A is a hydrogeomorphic class depressional wetland. Due its size and association with an intermittent stream, Wetland A has the potential to retain quantities of stormwater and provide important water quality functions.

Wetlands in western Washington often contain necessary wildlife habitat resources such as food, water, thermal cover, and hiding cover in close proximity. The subject wetland and associated buffer have the potential to provide protected habitat, which becomes increasingly important as areas become further populated with humans and habitat areas become fragmented. The subject wetland provides a moderate level of habitat for wildlife species as evidenced by Habitat Function score of 6 on the Wetland Rating Form for Western Washington: 2014 Update. During our site visit an American robin (*Turdus migratorius*), black-capped chickadee (*Poecile atricapillus*), house finch (*Carpodacus mexicanus*), and song sparrow (*Melospiza melodia*) were noted in the subject wetlands and buffer.

The vegetation within the wetland and associated buffer on this site serves to intercept rain fall before it strikes the soil, thereby reducing erosion and improving water quality. The presence of adsorbent soils and the biological action of the wetland vegetation, serve to remove sediment and pollutants from the water. These materials are bound in the soil and plant material providing increased water quality to downstream systems.

The Type Ns which flows through this wetland provides important functions to the surrounding environment such as hydrological transport, transport of solids (suspended and dissolved), and important fish and wildlife habitat features, among other functions. The portions of the site adjacent to the stream (vegetated wetland and associated 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.

BUFFER ENHANCEMENT

To comply with MMC 22E.010.220(2)(a - c), the applicant is proposing to enhance the wetland and stream buffer on the subject site. The proposed buffer enhancement will result in a total of 32,400 square feet (0.74 acres) of buffer enhancement. The buffer proposed to be enhanced is currently represented by maintained pasture with occasional patches of Himalayan blackberry.

Buffer enhancement is proposed to consist of removing any invasive species (mainly Himalayan blackberry) and planting 60 percent of the mitigation areas with native trees and 40 percent of the mitigation areas with native shrubs. All proposed species are native to the Puget Sound region and have been selected for their benefits to wildlife and their proven success on past mitigation projects. The native trees and shrubs listed below are proposed to be installed in the buffer enhancement areas.

Buffer Enhancement – 32,400 square feet

Common Name	Latin Name	Size	Spacing	Quantity
Western red cedar	<i>Thuja plicata</i>	1 gallon	10'	65
Douglas fir	<i>Pseudotsuga menziesii</i>	1 gallon	10'	65
Red alder	<i>Alnus rubra</i>	1 gallon	10'	65
Vine maple	<i>Acer circinatum</i>	1 gallon	5'	86
Osoberry	<i>Oemleria cerasiformis</i>	1 gallon	5'	86
Salmonberry	<i>Rubus spectabilis</i>	1 gallon	5'	86
Scouler's willow	<i>Salix Scouleriana</i>	1 gallon	5'	86
Snowberry	<i>Symphoricarpos albus</i>	1 gallon	5'	86
Baldhip rose	<i>Rosa gymnocarpa</i>	1 gallon	5'	86

GRASS SEEDING

Any disturbed soil in critical areas or buffers shall be seeded to the recommended grass seed mixtures below, or similar approved mixtures.

Common Name	Latin Name	lbs/1,000 sf
Tall fescue	<i>Festuca arundinacea</i>	0.4
Colonial bentgrass	<i>Agrostis tenuis</i>	0.4
Annual ryegrass	<i>Lolium multiflorum</i>	0.5
Red clover	<i>Trifolium pratense</i>	0.2

PLANTING NOTES

Wetland and buffer mitigation projects are typically more complex to install than can be described in plans. Careful monitoring by a professional wetland scientist for all portions of this project is strongly recommended. Timing and sequencing is important to the success of this type of project.

Plant in the early spring or late fall. Order plants from a reputable nursery. Care and handling of plant materials is extremely important to the overall success of the project. All plant materials recommended in this plan should be available from local and regional sources, depending on seasonal demand. Some limited species substitution may be allowed, only with the agreement of the consulting wetland professional.

The plants shall be arranged with the appropriate numbers, sizes, species, and distribution to achieve the required vegetation coverage. The actual placement of individual plants shall mimic natural, asymmetric vegetation patterns found on similar undisturbed sites in the area.

Colored surveyors ribbon, or other approved marking device shall be placed next to each planted tree and shrub to assist in locating the plants while removing the competing non-native vegetation and to assist in monitoring the plantings.

Wood chips or other suitable material shall be used for mulching in the planting areas. Any existing vegetation is to be removed from a two-foot diameter area at each planting site. Mulch is to be placed in this two-foot diameter area at a depth of three to four inches. A four-inch diameter ring around the base of each plant shall be kept free of mulch.

Water should be provided during the dry season (June 1st through September 30th) for the first three years after installation to insure plant survival and establishment. A temporary above ground irrigation system and/or water truck should provide water. Water should be applied at a rate of 1 inch of water twice per week for year one and 1 inch per week during year two.

PROJECT SUCCESS AND COMPLIANCE

Goals and Objectives of the Proposed Mitigation: The primary goals of the proposed mitigation are as follow:

- Increase the water quality and habitat functions within the buffer;
- Remove non-native, invasive vegetation from the mitigation area;
- Increase the quantity and diversity of native vegetation within the on-site wetland and stream buffer; and
- Allow for responsible residential development and associated infrastructure, while maintaining or improving the ecological functions provided by the subject site.

Definition of Success: The planting areas shall meet the following performance standards:

- a) Year 1: 100 percent survival of newly planted species,
- b) Year 3: at least 80 percent survival of installed plant species,
- c) Year 5: at least 80 percent survival of installed plant species,

This mitigation plan shall support at least 80% of the native plants set forth in the approved mitigation plan by the end of five years. The species mix should resemble that proposed in the planting plans, but strict adherence to obtaining all of the species shall not be a criterion for success.

Performance Standards:

Performance Standard 1: There shall be 100 percent survival of all the plantings after Year 1 or the installation contractor shall replace the material. At least 80 percent of the plant material installed shall survive in Year 5 after installation.

Performance Standard 2: There shall be a minimum of 30 percent cover of woody species (shrub and tree canopy layers considered together) in the buffer after the first year post-installation; and a minimum of 50 percent cover by woody material after the third year post-installation; and a minimum of 80 percent cover by woody material after the fifth year post-installation. Naturally occurring, native plants shall be included in the calculation of vegetation coverage.

Performance Standard 3: There shall be no more than 20 percent cover of weedy/invasive species in the mitigation areas at any time throughout the monitoring period.

If the project meets all of the criteria for success at the end of the five-year monitoring period, no further action will be required and the financial guarantee will be returned to the applicant in full. If the definition of success is not met for any reason at the end of the five-year monitoring period, the maintenance and monitoring period will be extended for one year at a time until the site meets the stated performance standards. If the definitions of success and the accompanying performance standards are met in less than five years, the monitoring may be terminated and the bond released at that point. This mitigation plan and the accompanying maintenance and monitoring will not be considered fully complete until written confirmation is received from the City of Marysville.

PROJECT MONITORING PROGRAM

Requirements for monitoring project:

1. As-built report (At time of construction).
2. 30-day post planting report.
3. Conduct semi-annual site visits in the spring (March) and fall (October) for monitoring Years 1 and 2 with an annual monitoring report submitted to the City of Marysville in the fall of each year.
4. Conduct one site visit in the fall (October) of monitoring Years 3 through 5 with a final monitoring report submitted to the City of Marysville following the site visit.

Criteria for Success: Upon completion of the proposed mitigation project, an inspection by a qualified biologist will be made to determine plan compliance. A compliance report will be prepared by the qualified biologist and supplied to the City of Marysville within 30 days after the completion of planting. The monitoring period will begin once the City receives written

notification confirming the mitigation plan has been implemented and City staff inspects the site and issues approval of the installation.

A qualified professional will perform condition monitoring of the plantings semi-annually in the spring and fall during the first two years of monitoring, and annually in the fall for monitoring years three through five. A written report describing the monitoring results will be submitted to the City of Marysville after the fall inspection for each monitored year. Final inspection will occur five years after completion of this project, or when the definitions of success and performance standards have been met. The purpose for monitoring this mitigation project shall be to evaluate its success. Success will be determined if monitoring shows at the end of five years that the definitions of success and the accompanying performance standards described below are being met. The property owner shall grant access to the mitigation area for inspection and maintenance to the contracted landscaper and/or wetland specialist and the City of Marysville during the period of the bond or until the project is evaluated as successful.

Vegetation Monitoring: Sampling points or transects will be established for vegetation monitoring and photo points will be established from which photos will be taken throughout the monitoring period. Photographs shall be taken from the same photo points during each subsequent monitoring visit to provide visual documentation of the evolution of the mitigation areas over time. Permanent sampling points must be identified on the mitigation site plans in the first monitoring report.

Following each monitoring visit, the contracted biologist will make recommendations for maintenance to the mitigations areas.

MAINTENANCE

The mitigation areas will require periodic maintenance to remove undesirable species and replace plant mortality. The planting areas should be maintained in spring and fall of each year for the five-year monitoring period. Maintenance may include, but will not be limited to, removal of competing grasses and invasive species (by hand if necessary), irrigation, replacement of plant mortality, and the replacement of mulch for each maintenance period. Following each monitoring visit, the project biologist will make recommendations for maintenance.

CONTINGENCY PLAN

If 20% of the plants are severely stressed during any of the inspections, or it appears 20% may not survive, additional plantings of the same species may be added to the planting area. Elements of a contingency plan may include, but will not be limited to: more aggressive weed

control, pest control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation.

REQUIRED FINANCIAL GUARANTEE

The City of Marysville requires a performance bond or other financial guarantee in order to ensure that the proposed mitigation efforts meet the performance standards outlined in this report. Pursuant to MMC Chapter 22G.040, a performance and maintenance bond or other acceptable security device is required to ensure the applicant's compliance with the terms of the approved mitigation plan. The security for performance shall be for a period of five years, but the community development department may agree to reduce the security in phases in proportion to the work successfully completed over the duration of the security. The amount of the performance bond equals 150 percent of the fair market cost of the mitigation project, plus 30 percent of the current fair market cost for performance. For this project the performance bond is calculated as follows:

Quantity of one-gallon plants @ \$11.50/plant	711
Estimated cost of plant material and labor	\$8,176.50
Total estimated costs	\$8,176.50
Total estimated costs x 150%	\$12,264.75
<u>Plus 30% of total estimated costs</u>	<u>\$2,452.95</u>
Total performance bond amount (Project cost x 150% + 30%)	\$14,717.70

POST-PROJECT FUNCTIONS AND VALUES

By designing this project to avoid all impacts to critical areas and buffers, no adverse environmental impacts and no net loss of ecological functions will occur as a result of this proposal. To comply with MMC 22E.010.220(2)(a - c), the applicant is proposing to enhance the on-site wetland and stream buffer. This will result in a total of 32,400 square feet (0.74 acres) of buffer enhancement. Buffer enhancement will consist of removing all invasive species and planting native trees and shrubs. The proposed buffer mitigation will increase vegetative species diversity and vegetative structure. This will improve wildlife habitat as well as increase shade, water quality and stormwater storage functions, within the buffer and is expected to generally increase the overall level of functions and values provided by the subject site.

TERMS & CONDITIONS

The environmental consulting work conducted, including this Critical Areas Study and Buffer Mitigation Plan (collectively the “Services”) is supplied to 2812 Architecture (the “Client”) as a means of determining whether any wetlands, streams, and/or fish and wildlife habitats regulated by the City of Marysville Critical Areas Regulations exist on, or adjacent to the site. The Services are provided in accordance with the following General Terms and Conditions (the “Terms”). In accepting the Services provided by *Acre Environmental Consulting, LLC* (“Acre”), the Client voluntarily enters into and agrees to the binding effect of the following Terms.

This report is intended to provide information deemed relevant in the Client's attempt to comply with the regulations currently in effect. The work for this report has conformed to the standard of care employed by professional ecologists in the Pacific Northwest. All other representations or warranties, whether express or implied, are hereby disclaimed 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 such conditions exist or arise, the information contained in this report may be rendered inaccurate or incomplete based upon those conditions. Acre acts solely as an independent contractor in providing the Services to the Client, and nothing in the provision of such Services shall be construed as creating an agency, partnership, joint venture or other similar legal relationship between Acre and the Client.

The laws applicable to Critical Areas are subject to varying interpretations. While Acre observed 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, all work on this property should not commence until permits have been obtained from all applicable agencies. If there are any questions regarding this report, please contact me at 206.450.7746.

Acre Environmental Consulting, LLC.



Louis Emenhiser
Principal Wetland Ecologist
Professional Wetland Scientist #1680

REFERENCES

Cowardin, et al, 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S.D.I. Fish and Wildlife Service. FWS/OBS-79/31. December 1979.

Environmental Laboratory. (1987). "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Hruby, T. 2014. Washington State wetland rating system for western Washington – 2014 Update. Publication #14-06-029. Olympia, WA: Washington Department of Ecology

Marysville Municipal Code. Chapter 22E.010 (Critical Areas Management) August 29, 2022. Marysville, Washington.

SalmonScape. Interactive Mapping website administered by the Washington Department of Fish and Wildlife. <http://wdfw.wa.gov/mapping/salmonscape/index.html>. Website last visited on August 29, 2022.

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.

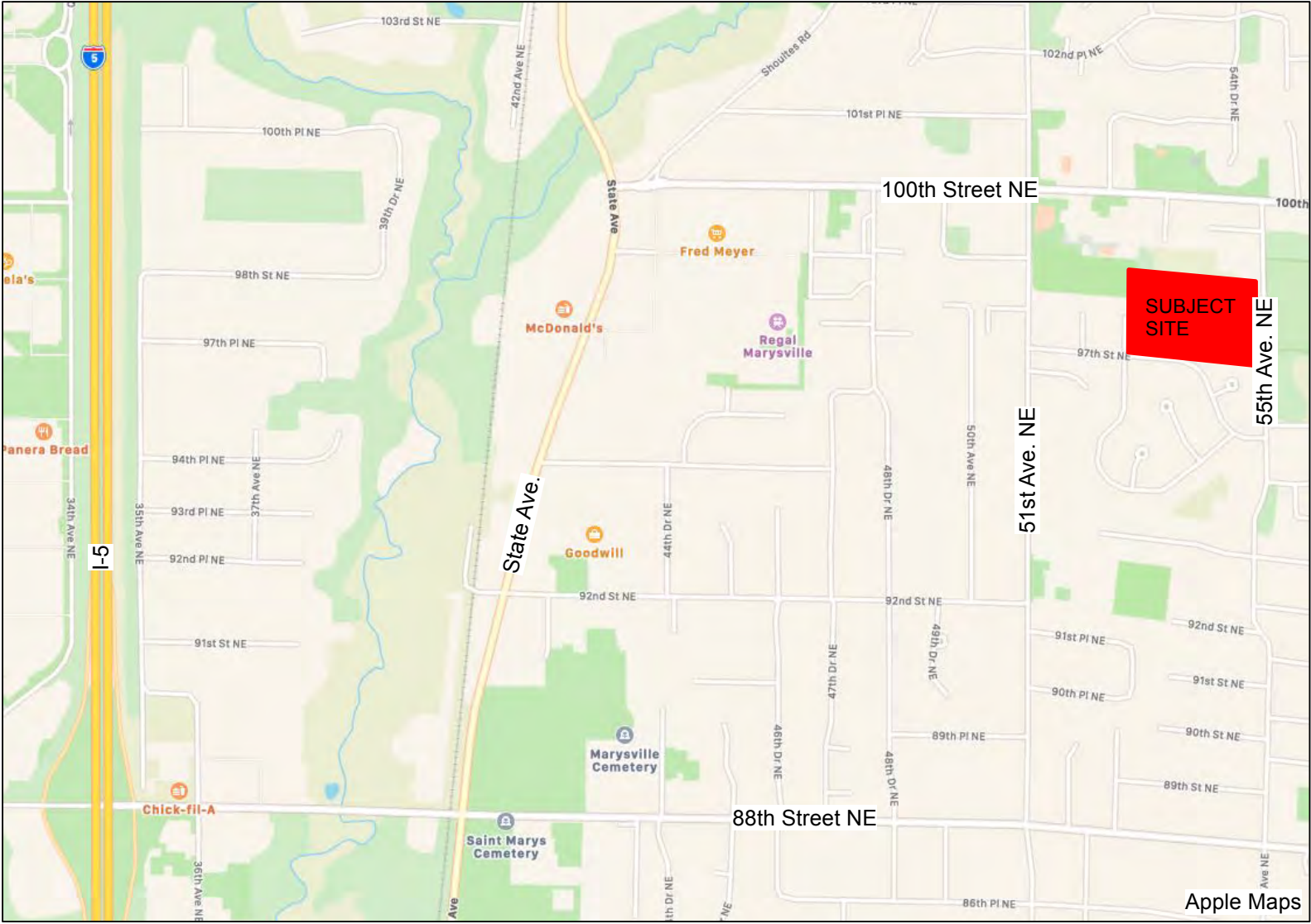
U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5. <http://wetland-plants.usace.army.mil/> U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH.

U.S. Fish and Wildlife Service. National Wetlands Inventory Wetlands Mapper. <http://107.20.228.18/Wetlands/WetlandsMapper.html#>. Website last visited on August 29, 2022.

Web Soil Survey. United States Department of Agriculture. Natural Resources Conservation Service. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Website last visited on August 29, 2022.

Washington State Department of Ecology guidance document titled Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State (Publication No. 16-06-029), dated October 2016.

Web Soil Survey. United States Department of Agriculture. Natural Resources Conservation Service. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Website last visited on August 29, 2022.



MAP SHEET:
Vicinity



PREPARED BY:
Acre Environmental Consulting, LLC
PO Box 55248
Shoreline, WA 98155
Phone: (206) 450-7746
Email: louis@acreenvironmental.com

VICINITY MAP
MARGARET ESTATES
9706 55TH AVE. NE
MARYSVILLE, WA
TAX PARCEL NO. 30051500301800.

PREPARED FOR:
2812 Architecture
c/o Adam Clark
2812 Colby Avenue
Everett, WA 98201

Acre Job: 21102
Drawn By:
L. Emenhiser
Date: 08.30.2022

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

Project/Site: 9706 55th Avenue NE City/County: Marysville / Snohomish County Sampling Date: 02.08.2022
 Applicant/Owner: 2812 Architecture State: WA Sampling Point: DP1
 Investigator(s): Louis Emenhiser Section, Township, Range: S15, T30N, R5E, W.M.
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 1 %
 Subregion (LRR): LRR-A Lat: 48.083525 Long: -122.158615 Datum: _____
 Soil Map Unit Name: Custer fine sandy loam. NWI classification: PFO1E

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 _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Wetland A.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 meters</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				_____ = Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10 meters</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				_____ = Total Cover
<u>Herb Stratum</u> (Plot size: <u>1 meter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Agrostis capillaris</u>	30	Y	Fac	
2. <u>Ranunculus repens</u>	30	Y	Fac	
3. <u>Schedonorus arundinaceus</u>	20	Y	Fac	
4. <u>Phalaris arundinacea</u>	10	N	FacW	
5. <u>Rumex crispus</u>	10	N	Fac	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
				100 = Total Cover
<u>Woody Vine Stratum</u> (Plot size: _____)	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 $\bar{A}3.0^1$
 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		
0-18	10YR 3/1	94	10YR 4/4	4	c	m	sal	
			10YR 5/3	2	c	m		

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) ✓ 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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" 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 checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" 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:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 0 _____	Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	(includes capillary fringe)	

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: 9706 55th Avenue NE City/County: Marysville / Snohomish County Sampling Date: 02.08.2022
 Applicant/Owner: 2812 Architecture State: WA Sampling Point: DP2
 Investigator(s): Louis Emenhiser Section, Township, Range: S15, T30N, R5E, W.M.
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1 %
 Subregion (LRR): LRR-A Lat: 48.083539 Long: -122.158293 Datum: _____
 Soil Map Unit Name: Custer fine sandy loam. NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> _____
Remarks: Non-wetland east of Wetland A.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 meters</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	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>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = 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 = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>10 meters</u>)				
1. <u>Rubus armeniacus</u>	<u>5</u>	<u>Y</u>	<u>Fac</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% Prevalence Index is $\bar{A}3.0^1$ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 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.
<u>Herb Stratum</u> (Plot size: <u>1 meter</u>)				
1. <u>Agrostis capillaris</u>	<u>60</u>	<u>Y</u>	<u>Fac</u>	
2. <u>Leucanthemum vulgare</u>	<u>30</u>	<u>Y</u>	<u>FacU</u>	
3. <u>Plantago lanceolata</u>	<u>10</u>	<u>N</u>	<u>FacU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				

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		
0-18	10YR 3/2	100					sal	

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"/> 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"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) Other (Explain in Remarks)
<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)

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"/>
--	--

Remarks: _____

HYDROLOGY

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

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"/>
---	--

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: 9706 55th Avenue NE City/County: Marysville / Snohomish County Sampling Date: 02.08.2022
 Applicant/Owner: 2812 Architecture State: WA Sampling Point: DP3
 Investigator(s): Louis Emenhiser Section, Township, Range: S15, T30N, R5E, W.M.
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2 %
 Subregion (LRR): LRR-A Lat: 48.083414 Long: -122.156995 Datum: _____
 Soil Map Unit Name: Custer fine sandy loam. NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> _____
Remarks: Non-wetland in the eastern portion of the property.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 meters</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = 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>10 meters</u>)				
1. <u>Rubus armeniacus</u>	<u>20</u>	<u>Y</u>	<u>Fac</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% Prevalence Index is $\bar{A}3.0^1$ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 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.
_____ = Total Cover				
Herb Stratum (Plot size: <u>1 meter</u>)				
1. <u>Ranunculus repens</u>	<u>60</u>	<u>Y</u>	<u>Fac</u>	
2. <u>Phalaris arundinacea</u>	<u>30</u>	<u>Y</u>	<u>FacW</u>	
3. <u>Rumex crispus</u>	<u>10</u>	<u>N</u>	<u>Fac</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
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		
0-18	10YR 3/2	100					sal	

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)	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"/>
--	---

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> 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"/> Other (Explain in Remarks)

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"/>
---	---

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: 9706 55th Avenue NE City/County: Marysville / Snohomish County Sampling Date: 02.08.2022
 Applicant/Owner: 2812 Architecture State: WA Sampling Point: DP4
 Investigator(s): Louis Emenhiser Section, Township, Range: S15, T30N, R5E, W.M.
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 2 %
 Subregion (LRR): LRR-A Lat: 48.083722 Long: -122.157070 Datum: _____
 Soil Map Unit Name: Custer fine sandy loam. NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> _____
Remarks: Non-wetland in the northeastern corner of the property.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 meters</u>)				
1. <u>Robinia pseudoacacia</u>	<u>50</u>	<u>Y</u>	<u>FacU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
2. <u>Betula papyrifera</u>	<u>30</u>	<u>Y</u>	<u>Fac</u>	
3. _____				
4. _____				
	<u>80</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10 meters</u>)				
1. <u>Rubus armeniacus</u>	<u>60</u>	<u>Y</u>	<u>Fac</u>	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 = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>60</u>	= Total Cover		
Herb Stratum (Plot size: <u>1 meter</u>)				
1. <u>Agrostis capillaris</u>	<u>60</u>	<u>Y</u>	<u>Fac</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% Prevalence Index is $\bar{A}3.0^1$ 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>Ranunculus repens</u>	<u>20</u>	<u>Y</u>	<u>Fac</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	<u>80</u>	= Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____				
% Bare Ground in Herb Stratum <u>3</u> _____ = Total Cover				

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		
0-18	10YR 3/2	100					sal	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)			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)					
Restrictive Layer (if present):								
Type: _____								
Depth (inches): _____								
						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)					Secondary Indicators (2 or more required)			
<input type="checkbox"/> Surface Water (A1)			<input type="checkbox"/> 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 <input checked="" type="checkbox"/>	Depth (inches): _____					
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____					
Saturation Present? (includes capillary fringe)	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

Wetland name or number A

RATING SUMMARY - Western Washington

Name of wetland (or ID #): 9706 55th WETA Date of site visit: 2.09.2012
 Rated by: Le. Ehrenhiser Trained by Ecology? X Yes No Date of training: 9.30.2014
 NEM class used for rating: Depressional Wetland has multiple NEM classes? Y X N

NOTE: Form is not complete without the figures requested. Figures can be compiled from source of base aerial photo/map: BDS Map Data, Google Earth

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

1. Category of wetland based on FUNCTIONS

Category I - Total score = 23 - 27
 Category II - Total score = 20 - 22 X
 Category III - Total score = 16 - 19
 Category IV - Total score = 9 - 15

FUNCTION	CHOOSE THE DOMINANT RATING		
	Improving Water Quality	Hydrologic	Habitat
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
Score based on ratings	<u>6</u>	<u>7</u>	<u>6</u>
TOTAL	19		

Score for each function based on three ratings (most important)

9 = H,H,H
 8 = H,H,M
 7 = H,H,L
 6 = H,M,M
 5 = H,L,L
 4 = M,M,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
Marine Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Intertidal	I II III IV
None of the above	<u>X</u>

Wetland name or number A

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D1.3, H1.1, H1.4	1
Hydroperiods	D1.4, H1.2	1
Location of outlet (can be added to map of hydroperiods)	D1.1, D1.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D2.2, D3.2	1
Map of the contributing basin	D4.3, D5.3	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H 2.2, H 2.3	3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D3.1, D 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D3.3	3

Palustrine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H1.1, H 1.4	1
Hydroperiods	H 1.2	1
Ponded depressions	H 1.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	R2.4	1
Plant cover of trees, shrubs, and herbaceous plants	R1.2, R 4.2	1
Width of unit vs. width of stream (can be added to another figure)	R4.1	1
Map of the contributing basin	R2.2, R 2.5, R 5.2	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H1.1, H 2.2, H 2.3	3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R3.3	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R3.2, R 3.3	3

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L1.1, L4.1, H1.1, H1.4	1
Plant cover of trees, shrubs, and herbaceous plants	L1.2	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	H2.1, H 2.2, H 2.3	3
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	L3.1, L3.2	3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L3.3	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L3.3	3

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H1.1, H 1.4	1
Hydroperiods	H1.2	1
Plant cover of stems, shrubs, and herbaceous plants	S1.3	1
Plant cover of stems, shrubs, and herbaceous plants (can be added to figure above)	S4.3	1
Boundary of 150 ft buffer (can be added to another figure)	S2.1, S5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H2.1, H 2.2, H 2.3	3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S3.1, S3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S3.3	3

Wetland name or number A

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO - go to 2

YES - the wetland class is **Tidal Fringe** - go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Saltwater Tidal Fringe it is on Riverine wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO - go to 3

YES - The wetland class is **Plate**

NOTE: wetland can be classified as a Plate wetland, use the form for Depressional wetlands.

3. Does the entire wetland unit meet all of the following criteria?

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac. (8 ha) in size.
At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit meet all of the following criteria?

The wetland is on a slope (slope can be very gradual).
The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
The water leaves the wetland without being impounded.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit meet all of the following criteria?

The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.
The overbank flooding occurs at least once every 2 years.

Wetland name or number A

YES - The wetland class is **Riverine**

NO - go to 6

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding.

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? This means that any outlet, if present, is higher than the interior of the wetland.

NO - go to 7

YES - The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO - go to 8

YES - The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression.	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have more than 2 HGM classes within a wetland boundary, classify the wetland as Depressional for the rating.

Wetland name or number **A**

DEPRESSIONAL AND FLATS WETLANDS
Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch. OR highly constricted permanently flowing outlet. Wetland has an unconfined, or slightly constricted, surface outlet that is permanently flowing.	points = 3 points = 2 points = 1
D 1.2. The soil is below the surface level or level is above clay or loam organic (see MWCA definitions) Yes = 4, No = 0	points = 4
D 1.3. Characteristics and distribution of persistent plants (emergent, scrub shrub, and/or forested Cowardin class): Wetland has persistent, sgrazed, plants > 85% of area Wetland has persistent, unsgrazed, plants > 5% of area Wetland has persistent, unsgrazed plants > 1% of area Wetland has persistent, unsgrazed plants < 1% of area	points = 5 points = 3 points = 1 points = 0
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > 5 total area of wetland Area seasonally ponded is > 5 total area of wetland Area seasonally ponded is < 5 total area of wetland	points = 4 points = 2 points = 0
Total for D 1	5

Rating of Site Potential If score is: **12-16 = H** **6-11 = M** **0-5 = L** Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?	Yes = 1 No = 0
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1, D 2.2, D 2.3?	Yes = 1 No = 0
Total for D 2	2

Rating of Landscape Potential If score is: **3 or 4 = H** **1 or 2 = M** **0 = L** Record the rating on the first page

D 3.0. Is the water quality impairment provided by the site valuable to society?	Yes = 1 No = 0
D 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
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0
D 3.3. Has this site been identified in a watershed or local plan as important for maintaining water quality (watershed WQI if there is a WQI) for the basin in which the site is found?	Yes = 2 No = 0
Total for D 3	3

Rating of Value If score is: **3+4 = H** **1 = M** **0 = L** Record the rating on the first page

Wetland name or number **A**

DEPRESSIONAL AND FLATS WETLANDS
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and stream degradation?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch. OR highly constricted permanently flowing outlet/points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. Wetland has an unconfined, or slightly constricted, surface outlet that is permanently flowing.	points = 4 points = 2 points = 1 points = 0
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Area of ponding are 3 ft or more above the surface or bottom of outlet. Areas of ponding between 2 ft to < 3 ft from surface or bottom of outlet. Areas are at least 0.5 ft to < 2 ft from surface or bottom of outlet. The wetland is a "rainwater" wetland. Wetland is flat but has small depressions on the surface that trap water. Masks of ponding less than 0.5 ft (6 in)	points = 7 points = 5 points = 3 points = 1 points = 0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the area of upstream basin contributing surface runoff to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit. The area of the basin is 10 to 100 times the area of the unit. The area of the basin is more than 100 times the area of the unit. Entire watershed is in the flats class.	points = 5 points = 3 points = 0 points = 5
Total for D 4	7

Rating of Site Potential If score is: **12-16 = H** **6-11 = M** **0-5 = L** Record the rating on the first page

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	Yes = 1 No = 0
D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential or commercial, urban, agricultural, etc.)?	Yes = 1 No = 0
Total for D 5	3









Rating of Landscape Potential If score is: **3 = H** **1 or 2 = M** **0 = L** Record the rating on the first page

D 6.0. Are the hydrologic functions provided by the site valuable to society?	Yes = 1 No = 0
D 6.1. The unit is a hydrologic unit that has floodplain, wetlands, or other features that contribute to flood reduction or other benefits. The wetland captures surface water that would otherwise flow down gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon habitat). Flooding occurs in a sub-basin that is immediately down gradient of unit. Surface flooding problems are in a sub-basin farther down gradient. Flooding from groundwater is an issue in the sub-basin. The existing or potential outflow from the wetland is so constricted by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why _____ There are no problems with flooding downstream of the wetland.	points = 2 points = 1 points = 1 points = 0
D 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
Total for D 6	6

Rating of Value If score is: **3+4 = H** **1 = M** **0 = L** Record the rating on the first page

Wetland name or number **A**

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? Cowardin plant classes in the wetland. Up to 10 practices may be considered for each class to meet the threshold of 4 or more than 10% of the wetland. If a smaller than 2.5 ac. Add the number of structures checked. <input checked="" type="checkbox"/> Emergent <input checked="" type="checkbox"/> Sphagnum (fresh water) thicket have > 30% cover <input checked="" type="checkbox"/> Forested thicket where trees have > 30% cover If the wetland is forested class, check if: <input checked="" type="checkbox"/> The Forested class has a lot of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground cover) that each cover 20% within the forested polygon 4 structures or more: points = 4 3 structures: points = 3 2 structures: points = 2 1 structure: points = 1 No structures: points = 0	2
H 1.1. Hydroperiod: Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 20% of the wetland or 8 ac to count. (See text for descriptions of hydroperiods). <input type="checkbox"/> Permanently flooded or inundated <input type="checkbox"/> Seasonally flooded or inundated <input checked="" type="checkbox"/> Occasionally flooded or inundated <input checked="" type="checkbox"/> Saturated only <input checked="" type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland <input checked="" type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland <input type="checkbox"/> Freshwater tidal wetland 4 or more types present: points = 4 3 types present: points = 3 2 types present: points = 2 1 type present: points = 1 No types present: points = 0	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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, demoygrass, purple loosestrife, Canadian thistle. If you counted: > 19 species: points = 2 5 - 19 species: points = 1 < 5 species: points = 0	1
H 1.4. Invasiveness of habitats Decide from the diagrams below whether an invasion is occurring. Cowardin plant 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 the row are high = 3 points        	1

For Hill Somb-Shrub vegetation is present but comprises less than 1/4 acre or 10%.

Wetland name or number **A**

H 1.5. Special Habitat Features: Check the habitat features that are present in the wetland. The number of classes is the number of points. <input checked="" type="checkbox"/> Large, downy, woody debris, within the wetland (2-4 in diameter and 6 ft long). <input checked="" type="checkbox"/> Standing snags (diameter > 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 checked="" type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 ft long where beaver is exposed). <input checked="" type="checkbox"/> At least 5 ac of shrub-stemmed persistent plants or woody bracken are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians). <input checked="" type="checkbox"/> Invasive plant cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata). Add the points in the boxes above 9	9
Total for H 1 Rating of Site Potential If score is: 15-18 = H 9-14 = M 0-8 = L Record the rating on the first page	
H 2.1. Does the landscape have the potential to support the habitat functions of the site? Accessible habitat (includes only habitat that directly abuts wetland soils). Calculator: % undisturbed habitat (U + I) % moderate and low intensity land uses (L + S) If total accessible habitat is: > 71 (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	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculator: % undisturbed habitat (U + I) % moderate and low intensity land uses (L + S) Undisturbed habitat: 20-50% and in 1-3 patches: points = 3 Undisturbed habitat: 10-50% and > 3 patches: points = 2 Undisturbed habitat < 10% of 1 km Polygon: points = 1 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 land use: points = 0	0
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 land use: points = 0	-2
Total for H 2 Rating of Landscape Potential If score is: 4-6 = H 1-3 = M 0-1 = L Add the points in the boxes above Record the rating on the first page -2	-2
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: - It has 3 or more priority habitats within 100 m (see next page) - It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal list). - It is mapped as a location for an individual WDFW priority species. - It is a Wetland of High Conservation Value as determined by the Department of Natural Resources - 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. Site does not meet any of the criteria above: points = 0 Record the rating on the first page 2	2
Total of Value If score is: 3 = H 1 = M 0 = L Record the rating on the first page	

Wetland name or number A

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats and the samples in which they can be found in: Washington Department of Fish and Wildlife, 2008. Priority Habitat and Species List. Olympia, Washington. http://www.dfw.wa.gov/wdfw/wdfw/priority_habitats_and_species_list.pdf or access the list from here: http://www.dfw.wa.gov/wdfw/wdfw/priority_habitats_and_species_list.pdf)

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.

- **Argem Stand:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Area and Corridor:** Areas of habitat that are relatively important to various species of native fish and wildlife (Full description in WDFW PHS report)
- **Herbaceous Bank:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Old growth/shore forest:** 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/acre (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forest - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 70%; 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/coolfire 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.
- **Wetland Prairie:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (Full description in WDFW PHS report p. 161 - see web link above).
- **Interstream:** The combination of physical, biological, and chemical processes and conditions that contribute to provide interstream fishery requirements for freshwater fish and wildlife resources.
- **Neotone:** Relatively undisturbed occurrence basins. These include Coastal Neotone, Open Coast Neotone, and Puget Sound Neotone. (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 rock, calc, or other geological formations and is large enough to contain a human.
- **Other:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Heterogeneous areas of rock rubble ranging to average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of small, angular, sand- or sedimentary rock, including riprap, slides, and mine tailings. May be associated with dikes.
- **Shrub and Log:** Shrub are considered shrub if they are dead or dying and exhibit sufficient decay characteristics to enable wildlife penetration (see by wildlife). Priority shrub have a diameter at breast height > 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.

Wetland name or number A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<p>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</p> <p>SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> — The dominant water regime is tidal. — Vegetated, and — With a salinity greater than 0.5 ppt. <p>Yes - Go to SC 1.1 No - Not an estuarine wetland</p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuarine Reserve, Wetland Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-50-151? Yes = Category I No - Go to SC 1.2</p>	Cat. I
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> — The wetland is relatively undisturbed (has no skiing, fishing, riding, cultivation, grazing, and has less than 70% cover of non-native plant species. (If non-native species are Sponaria, see page 25) — At least 5% of the shoreline edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. <p>Yes = Category I No = Category II</p>	Cat. II
<p>SC 2.0. Wetlands of High Conservation Value (WHCV)</p> <p>SC 2.1. Has the WA Department of Natural Resources updated their web page http://www.dnr.wa.gov/nr/whcv Wetlands of High Conservation Value?</p> <p>Yes - Go to SC 2.2 No - Go to SC 2.3</p>	Cat. I
<p>SC 2.2. Is the wetland in a section/Township/Range that contains a Natural Heritage wetland?</p> <p>Yes = Category I No = Not a WHCV</p> <p>http://www.dnr.wa.gov/nr/whcv/natural_heritage_wetlands.pdf</p>	Cat. I
<p>SC 2.3. Has WDFW identified the wetland within the S/WMA as a Wetland of High Conservation Value and listed it in their wetland?</p> <p>Yes - Contact WHRP/WHCV and go to SC 2.4 No = Not a WHCV</p> <p>Yes = Category I No = Not a WHCV</p>	Cat. I
<p>SC 3.0. Boats</p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in logs? Use the key below. If you answer YES you will still need to rate the wetland based on its function.</p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that are greater than 10% of the total 20 in of the soil profile?</p> <p>Yes - Go to SC 3.2 No - Go to SC 3.3</p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 10% of the total 20 in of the soil profile, or an impermeable horizon such as clay or volcanic ash, or that are blocking canopy or tree cover?</p> <p>Yes - Go to SC 3.3 No = Not a WHCV</p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mesic or hydric A/D horizons?</p> <p>Yes = Not a Category I bog No - Go to SC 3.4</p> <p>NOTE: If you are uncertain about the extent of mooses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 15 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (50% cover) with Sitka spruce, tubular pine, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelman spruce, or western white pine. AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover within the canopy?</p> <p>Yes = Not a Category I bog No = Not a bog</p>	Cat. I

Wetland name or number A

Wetland name or number A

This page left blank intentionally

<p>SC 4.0. Forested Wetlands Does the wetland have at least 1 substantial acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its function.</p> <ul style="list-style-type: none"> Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). <p>Yes = Category I No = Not a forested wetland for this section</p>	<p>Cat. I</p>
<p>SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbars, gravel banks, shingle, or, less frequently, rocks The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 part) during most of the year. In at least a portion of the lagoon (based on the wetland <u>the lagoon</u>) <p>Yes = Go to SC 5.1 No = Not a wetland in a coastal lagoon</p> <p>EC 5.1. Does the wetland meet all of the following three conditions?</p> <ul style="list-style-type: none"> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). At least 5% of the lagoon edge or the wetland has a 100 ft buffer of shrub, forest, or ungrazed or unmowed grassland. The wetland is larger than 1/4 ac (1,350 ft²) <p>Yes = Category I No = Category II</p>	<p>Cat. I Cat. II</p>
<p>SC 6.0. Intertidal Wetlands Is the wetland west of the 1893 line (also called the Western Boundary of Upland Ownership or WBULO) if you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> Long Beach Peninsula: Lands west of SR 109 Grayland-Wesport: Lands west of SR 105 Ocean Shore-Crescent: Lands west of SR 115 and SR 109 <p>Yes = Go to SC 6.1 No = Not an intertidal wetland for rating</p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (yes H, H/H or H, H/M for the three aspects of function)? Yes = Category I No = Go to SC 6.2</p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No = Go to SC 6.3</p> <p>SC 6.3. Is the wetland between D.1 and E.3c, or 4 ft in a mosaic of wetlands that is between D.1 and 1.4c? Yes = Category III No = Category IV</p>	<p>Cat. I Cat. II Cat. III Cat. IV</p>

Map measurements used to determine answers for H2.0.

1km area - 39,227,609 SF

Moderate & low intensity land use (LU) - 594,709 SF 2%

Accessible moderate & low intensity LU - 310,290 SF 1%

Relatively undisturbed LU - 2,530,266 SF 6%

Accessible relatively undisturbed LU - 0 SF

High Intensity Land Use - 36,100,634 SF 92%

Pollution generating areas (typ.)

Wetland A Rating Unit



RATING ANSWERS FOR WETLAND A

D1.1 & D4.1 Wetland has an intermittently flowing ditch outlet.

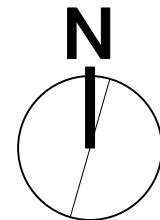
D1.3 Wetland has persistent ungrazed plants > 1/10 of the area.

D1.4 Area that is seasonally ponded is >1/4 total area of the wetland.

D2.2 & D5.2 Greater than 10% of the area within 150' of Wetland A is in land use that generates pollutants and excess runoff (~100%).

H1.1 & H1.4 The wetland contains emergent and forested vegetation. The forested class has 3 out of 5 strata that each cover 20% within the forested polygon; and low interspersions.

H1.2 The wetland contains saturated only and seasonally flowing stream hydroperiods.



SCALE 1" = 200'



Acre Job: 21102
 Drawn By: L. Emenhiser
 Figure 1 of 5
 Date: 05.02.2022
 Rev #:

PREPARED FOR:
 2812 Architecture
 c/o Adam Clark
 2812 Colby Avenue
 Everett, WA 98201

WETLAND RATING MAP
 9706 55TH AVENUE NE
 MARYSVILLE, WA
 TAX PARCEL NO. 30051500301800.

PREPARED BY:
 Acre Environmental Consulting, LLC
 PO Box 55248
 Shoreline, WA 98155
 Phone: (206) 450-7746
 Email: louis@acreenvironmental.com



Contributing Basin for Wetland A

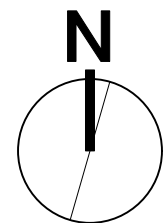
Wetland A Rating Unit



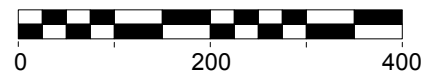
RATING ANSWERS FOR WETLAND A

D4.3 the contributing basin for Wetland A is ~884,982 square feet in size / the ~128,423 square foot wetland rating unit = 6.89 (basin is less than 10 times the area of the unit).

D5.3 Greater than 25% of the contributing basin of Wetland A is covered with intensive land uses (residential at > 1 residence per acre).



SCALE 1" = 200'



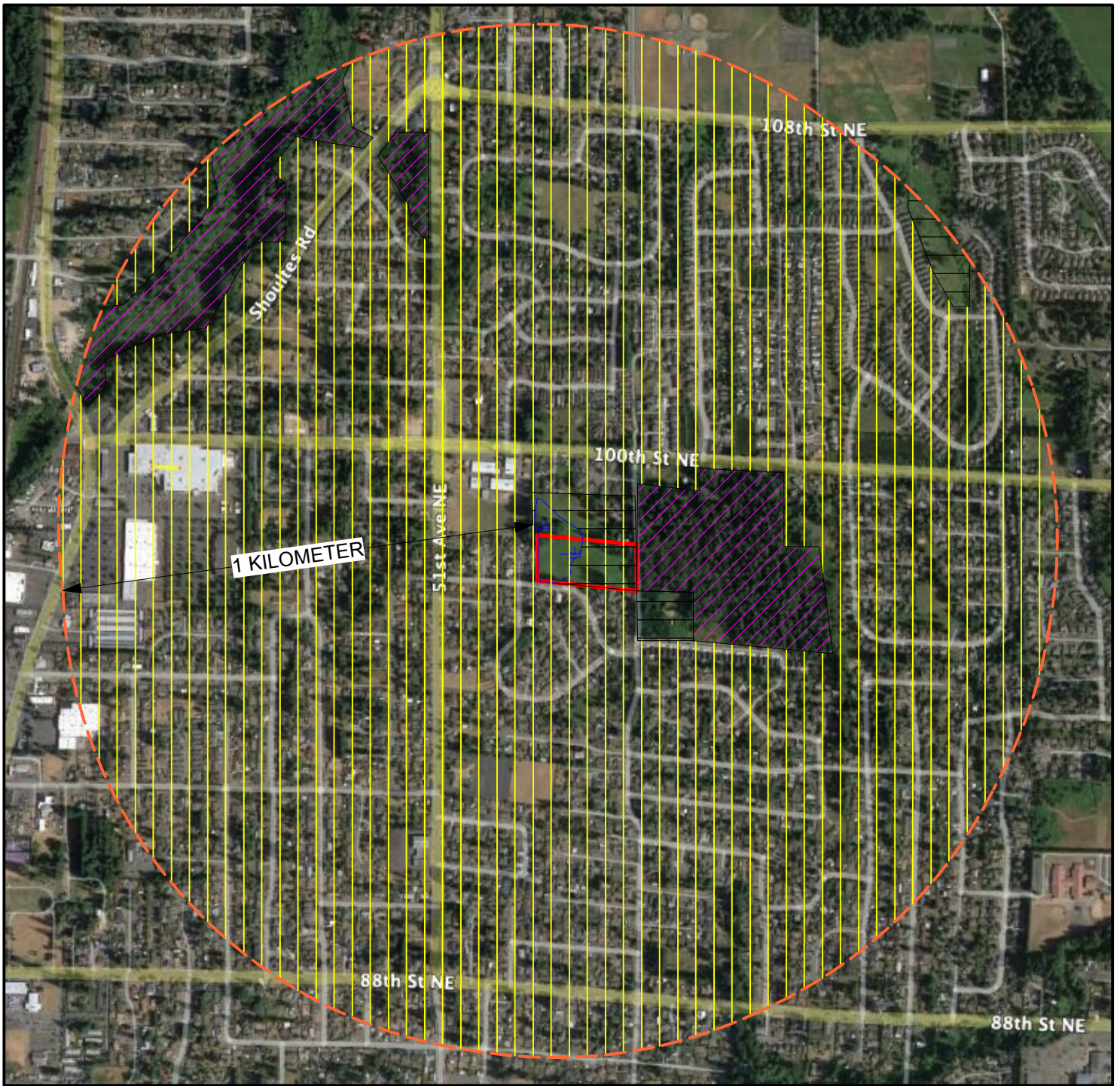
Acre Job: 21102
 Drawn By:
 L. Emenhiser
 Figure 2 of 5
 Date: 05.02.2022
 Rev #:

PREPARED FOR:
 2812 Architecture
 c/o Adam Clark
 2812 Colby Avenue
 Everett, WA 98201

CONTRIBUTING BASIN MAP
 9706 55TH AVENUE NE
 MARYSVILLE, WA
 TAX PARCEL NO. 30051500301800.






PREPARED BY:
 Acre Environmental Consulting, LLC
 PO Box 55248
 Shoreline, WA 98155
 Phone: (206) 450-7746
 Email: louis@acreenvironmental.com





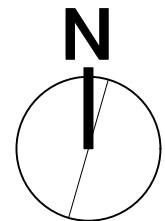
1 KILOMETER

LEGEND

-  SUBJECT WETLANDS
-  HIGH INTENSITY LAND USE
-  MODERATE, AND LOW INTENSITY LAND USE
-  RELATIVELY UNDISTURBED LAND
-  ONE KILOMETER POLYGON LINE

Note: Land use definitions are derived from H2.0 Table 3 of the Wetland Rating System for Western WA: 2014 Update

This map was used to derive answers for questions H2.1, H2.2, and H2.3.



APPROX. SCALE 1" = 1,000'



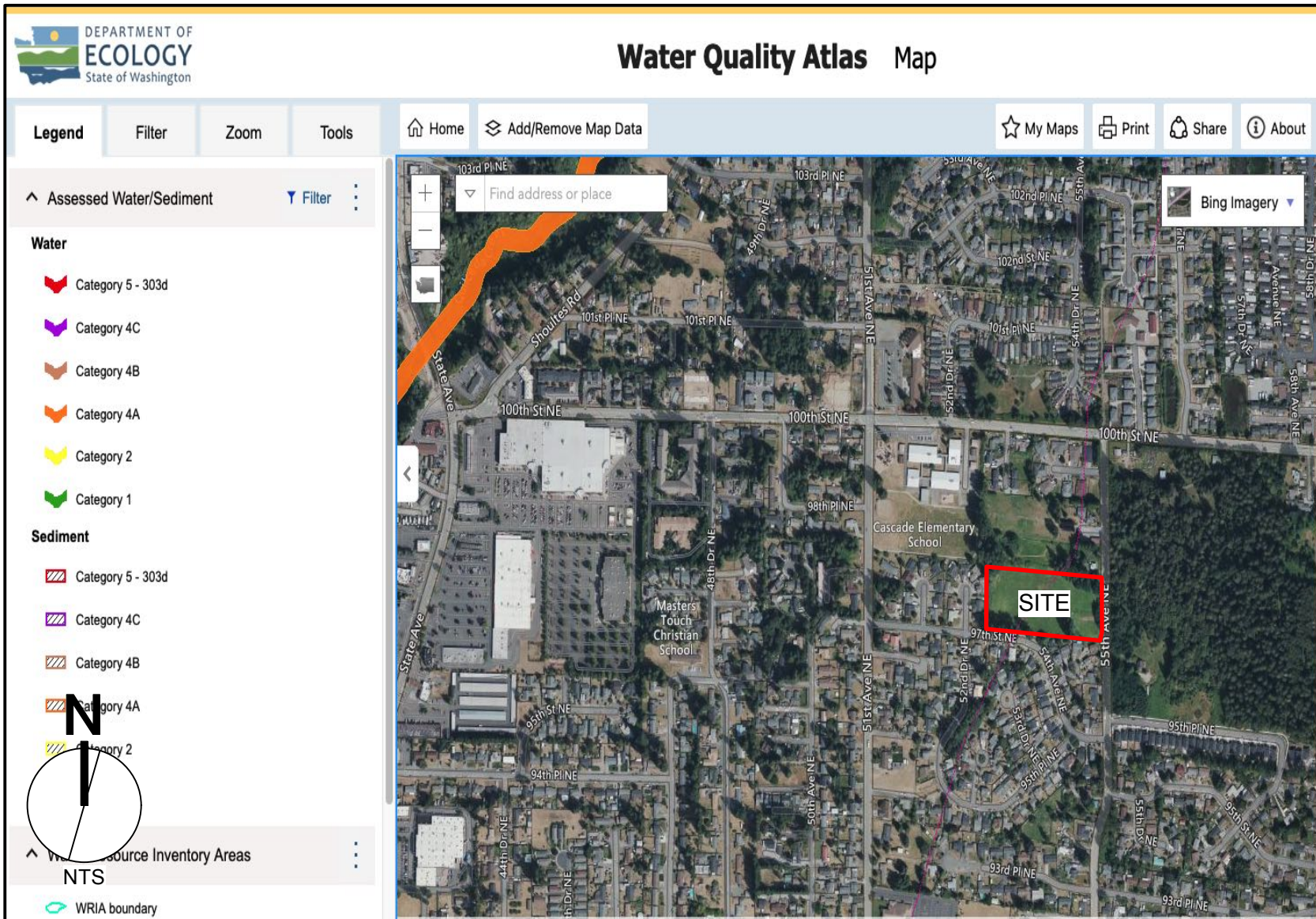
Acre Job: 21102
 Drawn By:
 L. Emenhiser
 Figure 3 of 5
 Date: 05.02.2022
 Rev #:

PREPARED FOR:
 2812 Architecture
 c/o Adam Clark
 2812 Colby Avenue
 Everett, WA 98201

1KM POLYGON MAP (UNDISTURBED & ACCESIBLE HABITAT)
 9706 55TH AVENUE NE
 MARYSVILLE, WA
 TAX PARCEL NO. 30051500301800.

PREPARED BY:
 Acre Environmental Consulting, LLC
 PO Box 55248
 Shoreline, WA 98155
 Phone: (206) 450-7746
 Email: louis@acreenvironmental.com





D3.1 The subject wetland does not drain directly (within 1 mile) of any water listed on the 303(d) list.

D3.2 The subject wetland is located in a basin or sub-basin with an aquatic resource listed on the 303(d) list.

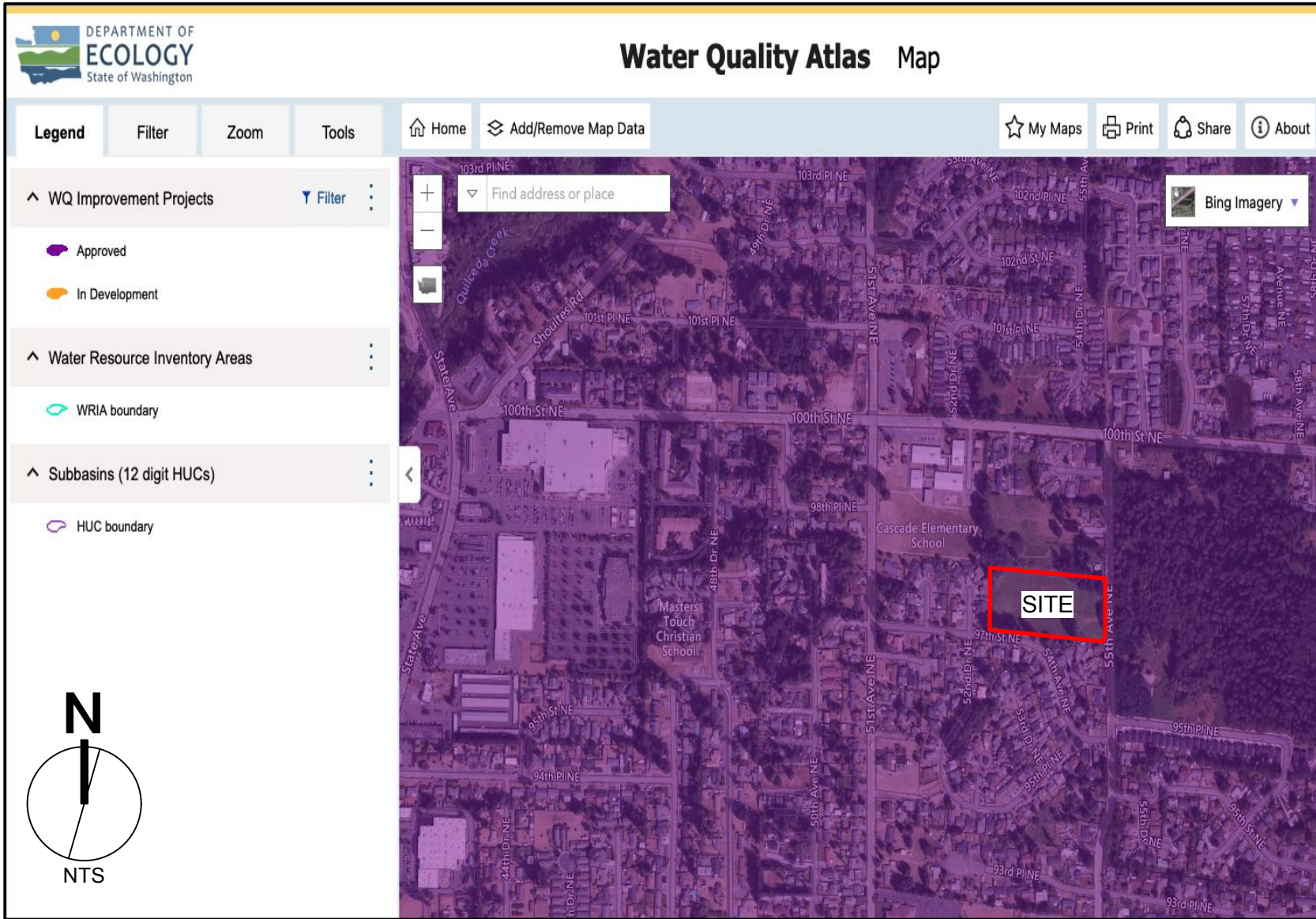


PREPARED BY:
Acre Environmental Consulting, LLC
PO Box 55248
Shoreline, WA 98155
Phone: (206) 450-7746
Email: louis@acreenvironmental.com

DOE 303(d) Waters in Basin (Screen Capture)
9706 55TH AVENUE NE
MARYSVILLE, WA
TAX PARCEL NO. 30051500301800.

PREPARED FOR:
2812 Architecture
c/o Adam Clark
2812 Colby Avenue
Everett, WA 98201

Acre Job: 21102
Drawn By:
L. Emerhiser
Figure 4 of 5
Date: 05.02.2022
Rev #:



D3.3 Based on the Department of Ecology's Washington State Water Quality Atlas, TMDL's are approved for the basin in which this wetland rating unit is found.

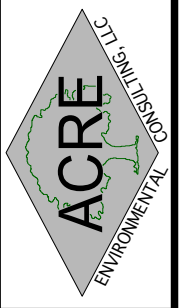


PREPARED BY:
 Acre Environmental Consulting, LLC
 PO Box 65248
 Shoreline, WA 98155
 Phone: (206) 450-7746
 Email: louis@acreenvironmental.com

TMDL'S FOR WRIA 7 (Screen Capture)
 9706 55TH AVENUE NE
 MARYSVILLE, WA
 TAX PARCEL NO. 30051500301800.

PREPARED FOR:
 2812 Architecture
 c/o Adam Clark
 2812 Colby Avenue
 Everett, WA 98201

Acre Job: 21102
 Drawn By:
 L. Emerhiser
 Figure 5 of 5
 Date: 05.02.2022
 Rev #:

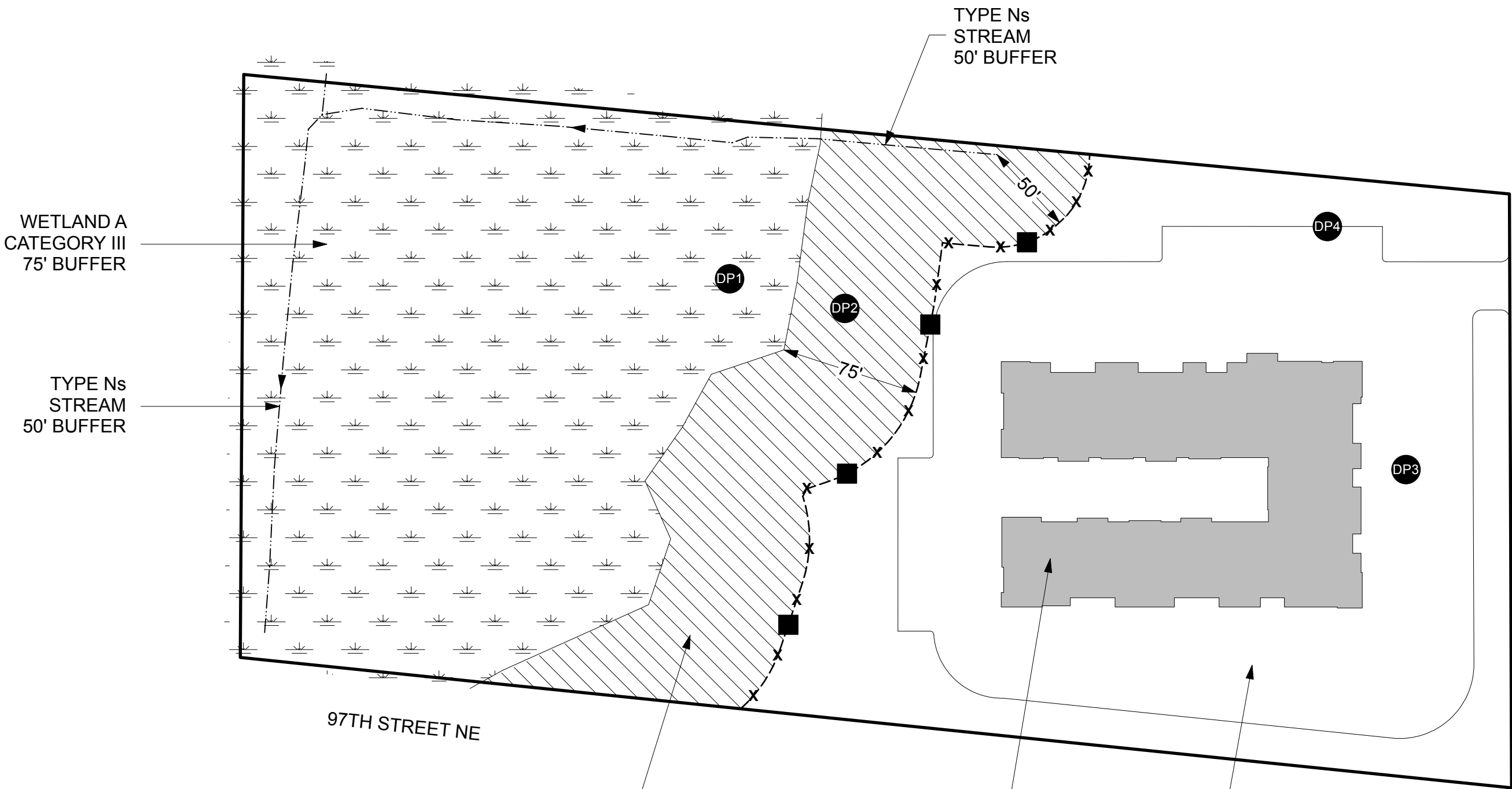


PREPARED BY:
Acre Environmental Consulting, LLC
PO Box 55248
Shoreline, WA 98155
Phone: (206) 450-7746
Email: louis@acreenvironmental.com

CRITICAL AREAS STUDY MAP
MARGARET ESTATES
MARYSVILLE, WA
TAX PARCEL NO. 30051500301800.

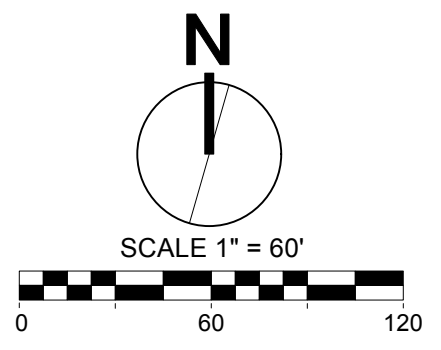
PREPARED FOR:
2812 Architecture
c/o Adam Clark
2812 Colby Avenue
Everett, WA 98201

Acre Job: 21102
Drawn By:
L. Emehiser
Date: 08.30.2022



LEGEND

- WETLAND
- STREAM
- BUFFER
- BUFFER ENHANCEMENT
- TWO-RAIL FENCE
- CRITICAL AREAS SIGN
- DATA POINT (4 TOTAL)



97TH STREET NE

55TH AVENUE NE

BUFFER ENHANCEMENT
32,400 SF

PROPOSED MULTI-UNIT APARTMENT BUILDING

PROPOSED DRIVEWAY & PARKING

TYPE Ns STREAM
50' BUFFER

WETLAND A
CATEGORY III
75' BUFFER

TYPE Ns
STREAM
50' BUFFER