

**Critical Area Site Assessment: Wetland/Stream Study (Parcel 28003)**

Prepared for:

Dave Prutzman  
4703 Parkview Lane  
Mount Vernon, WA 98274



Prepared by:

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C.E.D. DEPARTMENT  
BY \_\_\_\_\_



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**January 29, 2016**

**Table of Contents**

Section ----- page

Summary ----- ii

1. Introduction ----- 1

2. Existing Conditions ----- 1

3. Existing Information Sources ----- 2

    3.1 National Wetland Inventory ----- 3

    3.2 Soil Survey of Skagit County Area, WA ----- 3

    3.3 Mount Vernon Wetland and Stream Inventory ----- 4

4. Site Investigation ----- 4

    4.1 Methodology ----- 4

        4.1.1 Wetland Hydrology ----- 4

        4.1.2 Hydric Soils ----- 5

        4.1.3 Hydrophytic Vegetation ----- 5

5. Data Collection ----- 5

6. Wetland Rating & Functions ----- 7

7. Stream Study ----- 8

8. Mitigation ----- 9

9. Closure ----- 9

10. References ----- 10

Tables

Table 1 – Wetland Data Summary ----- 6

Table 2 – Wetland Rating Summary ----- 7

Attachments

Wetland Determination Data Forms ----- A

Wetland Delineation/Confirmation Site Plan ----- B

Wetland Rating Forms ----- C

## Summary

### Client:

Dave Prutzman  
4703 Parkview Lane  
Mount Vernon, WA 98274

### Site:

13.4 acre site (Parcel 28003) located in south Mount Vernon, North of East Blackburn Road within the Northwest ¼ of Section 28, Township 34 N., Range 4 E., W.M., Skagit County, Washington.

### Areas Assessed:

Assessment addresses the open pasture and mixed forest south of and including Maddox Creek.

A 2.1 acre depressional palustrine emergent/scrub shrub seasonally flooded wetland was delineated in 2009 and confirmed on January 25, 2016. The wetland is located primarily within the open pasture area and extends into scrub shrub plant communities to the east. The wetland was surveyed and flagged on site. The wetland was rated as Category III in accordance with the current Wetland Rating System for Western Washington (Ecology, 2014).

Maddox Creek is classified as F (Fish Habitat) in accordance with WAC 222-16-031 and as a high gradient (> or equal to 2%) stream on the City of Mount Vernon Stream Gradient Map. The creek has a well-defined (incised) channel and a diverse riparian plant community. The creek varies in width from 3 to 12 feet and includes several distinct associated wetlands within its banks. The OHWM is located along the top of bank at the transition from wetland to upland vegetation communities dominated by sword fern and conifers.

### Regulatory Guidance:

Subsection 15.40.090 F. 1. Establishes the standard buffer required for Category III wetland at 75 feet

Subsection 15.40.080 D. 3. Establishes the standard buffer required for Type F streams at 150 feet.

In addition to the standard buffers a 15 foot building setback is required from the outside edge of the buffer.

### Alternative Guidance:

In addition to the standard buffer requirements outlined above buffer averaging and reduction options are also provided under Subsections 15.40.080 D. and 15.40.090 F.

The City's ecosystem alternative provides an additional option for reducing buffers under Section 15.40.110.



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January 29, 2016

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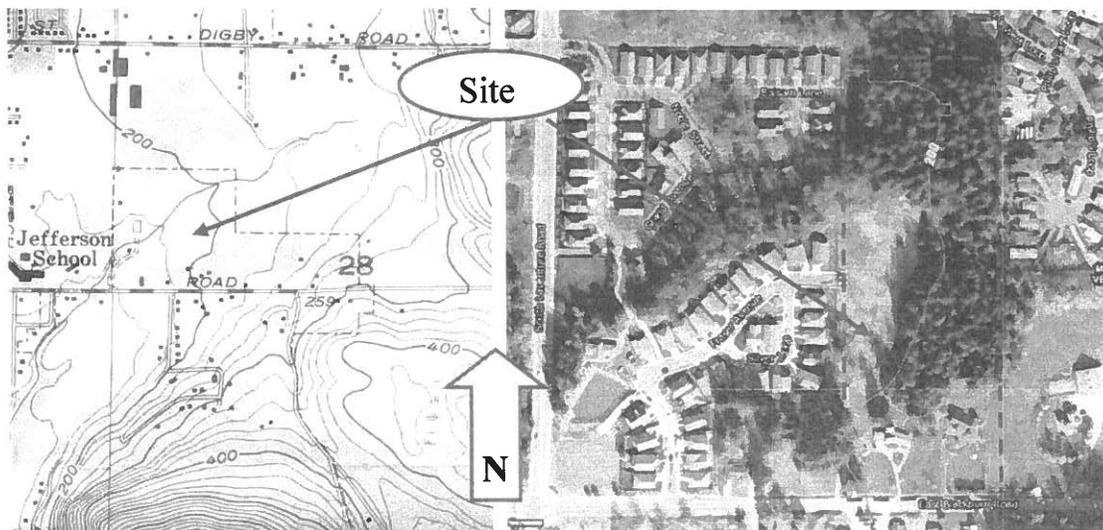
### **Re: Critical Area Site Assessment (Parcel 28003)**

#### **1. Introduction**

At the request of Mr. Dave Prutzman, Graham-Bunting Associates (GBA) have conducted a site investigation and prepared the following report addressing jurisdictional wetlands and fish and wildlife habitat conservation areas within the portion of referenced parcel lying south of Maddox Creek. The report is prepared as an addendum to an earlier Critical Area Site Assessment prepared by Graham-Bunting Associates for Ms. Maggie Wallace, Dated July 31, 2009. The report is intended to revisit and confirm the findings of our original assessment relating to the area of the parcel south of Maddox Creek. In addition this report incorporates the most recent update of the Washington State Wetland Rating System for Western Washington (Ecology, 2014). The report is prepared consistent with the requirements of the City of Mount Vernon Critical Area Ordinance (MVMC 15.40). The report includes a characterization of existing site conditions, review of existing information sources, wetland assessment and stream study.

#### **2. Existing Conditions**

The subject property is located in south Mount Vernon, North of East Blackburn Road within the Northwest ¼ of Section 28, Township 34 N., Range 4 E., W.M., Skagit County, Washington.



USGS: Mount Vernon, WA (1981)

Skagit County GIS: I-Map (2015)

The subject property is a rectangular shaped parcel of approximately 13.4 acres. The parcel measures approximately 1,285 feet along the east and west property lines, 430 feet along the southern property line (at Blackburn Road) and 460 feet along the northerly property line. Two single family residences are located on the southern quarter of the parcel and are accessed off of Blackburn Road. The northern three quarters of the parcel is undeveloped and consists of open pasture and mixed forest. Maddox Creek flows from east to west through the forested northern

portion of the parcel. The parcel is relatively flat with an average grade of approximately 3% and drains south to roadway ditches and to Maddox Creek. The following report will focus on the open pasture, mixed forest south of and including Maddox Creek.

An open pasture is the primary feature of the central and western portion of the site. The pasture drains to Maddox Creek through a shallow ditch or swale located centrally on the parcel. The pasture is vegetated with mixed grasses consisting of sweet vernal grass (*Anthoxanthum odoratum*), velvet grass (*Holcus lanatus*), colonial bentgrass (*Agrostis tenuis*), reed canarygrass (*Phalaris arundinacea*) and creeping buttercup (*Ranunculus repens*). Soft rush (*Juncus effusus*) is located in shallow depressions throughout the pasture. Trailing blackberry (*Rubus ursinus*) and Himalayan blackberry (*Rubus discolor*) are present at a number of locations around the northern and eastern perimeters of the pasture at the transition to the forest.

A mixed forest dominated by conifers occupies the eastern and northern portions of the parcel. Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*) and red alder (*Alnus rubra*) make up the forest canopy, Conifers range from 6 inches to 40 inches dbh. The understory consists primarily of elderberry (*Sambucus racemosa*), vine maple (*Acer circinatum*), sword fern (*Polystichum munitum*), lady fern (*Athyrium filix-femina*), Indian plum (*Oemleria cerasiformis*) and trailing blackberry. Skunk cabbage (*Lysichiton americanum*) is present at several locations within the banks of Maddox Creek.

Maddox Creek is classified as F (Fish Habitat) in accordance with WAC 222-16-031 and as a high gradient (> or equal to 2%) stream on the City of Mount Vernon Stream Gradient Map. The creek has a well defined (incised) channel and a diverse riparian plant community consisting of the species listed in the previous paragraph. The creek varies in width from 3 to 12 feet and includes several distinct associated wetlands within its banks. The OHWM is located along the top of bank at the transition from wetland to upland vegetation communities dominated by sword fern and conifers.



Photo 1 – View north showing open pasture portion of the parcel in foreground and mixed forest in background dated June 27, 2019.



Photo 2 – View of OHWM of Maddox Creek and riparian vegetation community dated June 28, 2009.

### 3. Existing Information Review

The subject property has been addressed under a number of existing studies. These information sources have been reviewed and synthesized to assist GBA in characterizing the subject property. The sources are summarized as follow:

### 3.1 National Wetland Inventory

The National Wetland Inventory (NWI) is compiled by the U.S. Department of Interior's Fish and Wildlife Service. NWI relies upon visual aerial photo interpretation of wetland indicators including hydrologic, vegetation and topographic signatures. Wetland areas identified under NWI are also classified in accordance with the Cowardin classification system. NWI identifies a system of connected wetlands in the vicinity of the subject property. Within the property boundaries, a linear wetland is identified bisecting the northern portion of the site. The wetland is classified as a Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded (R3UBH) wetland. The mapped location, alignment and classification are generally consistent with the location of Maddox Creek. GBA utilize NWI only as a generalized map indication of the possible presence and extent of wetlands. Jurisdictional delineations are always based on a site-specific analysis.

### 3.2 Soil Survey of Skagit County Area, Washington

The Soil Survey is compiled by the Natural Resource Conservation Service and includes mapped soil units registered to detailed descriptions of soil characteristics. The survey maps two soil units within the property boundaries:

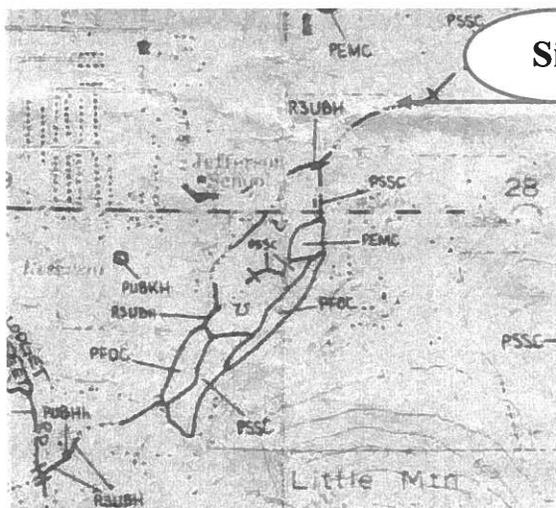
#17 Bow gravelly loam (3-8 percent slopes) is a very deep, somewhat poorly drained soil frequently found on glaciated terraces and undulating till plains. Permeability of the Bow soil is slow and available water capacity is high.

#124 Skipopa silt loam (0-3 percent slopes) is a very deep, somewhat poorly drained soil frequently found on terraces. Permeability of the Skipopa soil is very slow and available water capacity is high. The Skipopa soil is not included on the local hydric soil list, however the hydric Bellingham series is a common inclusion in this mapped unit.

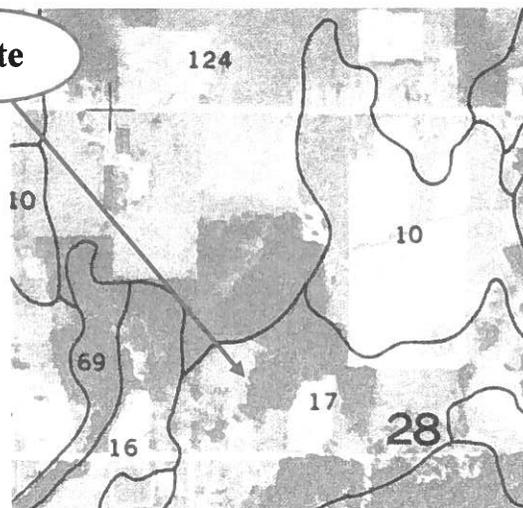
The Bow soil is included on the local hydric soil list under Criteria 2 a).

2. – Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:

- a) Somewhat poorly drained with a water table equal to 0.0 feet from the surface during the growing season.



Source: NWI Mount Vernon, WA (1989)



Source: Skagit Soil Survey, Sheet 42 (1989)

### 3.3 City of Mount Vernon Wetland and Stream Inventory (January 2000)

The City of Mount Vernon compiled a wetland and stream inventory with the assistance of Shannon and Wilson Inc. Geotechnical and Environmental Consultants. The inventory was compiled utilizing existing resource information including NWI, Skagit Soil Survey, Department of Natural Resources Water Resource Inventory and aerial photographs. The inventory also incorporated site-specific assessments prepared in association with development proposals and windshield surveys. The southeast corner of the subject property is included within an area identified as a potential palustrine emergent wetland. The area identified is currently occupied by a single family residence. Review of the inventory does not indicate that site specific analysis was utilized in identifying the potential wetland boundaries. However, a windshield survey relying primarily on the presence of wetland vegetation conducted prior to construction of the residence may be the rationale for identifying a portion of the parcel as a potential wetland.

## **4. Site Investigation**

GBA conducted our original investigation during late spring of 2009. The purpose of this addendum is to assess current conditions in order to determine if the environmental baseline has changed in the intervening seven years and to confirm wetland boundaries. The following discussion documents the procedures and methods utilized in our most recent wetland investigation (January 2016) and summarize our findings.

### 4.1 Methodology

GBA utilized the 1987 Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) in the preparation of this report. The Corps Manual and Western Mountains, Valley's and Coast Regional Supplement represent the accepted standard for identifying and delineating wetlands for jurisdictional purposes under the Clean Water Act. And the City of Mount Vernon for use in conjunction with the Growth Management Act mandated Critical Areas Ordinance. The manual incorporates the Clean Water Act Definition of Wetlands as follows:

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.”

The City's Critical Areas Ordinance stipulates additional defining elements as follows:

“Wetlands do not include those artificial wetlands created from non-wetland sites, including but not limited to, irrigation and drainage ditches, grass lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.”

The definition requires that three interrelated defining elements or parameters be established when identifying wetlands. These parameters are wetland hydrology, hydric soils and hydrophytic vegetation.

#### 4.1.1 Wetland Hydrology

Water is the driving force that creates and sustains wetlands. The 1987 Manual and subsequent Corps guidance identifies wetlands as areas where soils are inundated or continuously saturated for a minimum of 5% of the growing season (approximately 12.5 days for Western Washington).

When direct observation of the water table cannot be made, hydrology is determined by relying upon hydrologic indicators such as hydric soil characteristics, water marks, drift lines, sediment deposits or drainage patterns.

Onsite hydrology is dominated by two features, 1) Maddox Creek which bisects the parcel at a point approximately 700 feet north of Blackburn Road and, 2) A centrally located wetland approximately 2.1 acres in size as identified through GBA's 2009 assessment. Maddox Creek is a discrete feature which includes wetland areas within its banks and is charged by seasonal storm flows. The wetland receives hydrology from surface sheet flows, precipitation and a seasonal water table that is at or near the surface for a sufficient period of time during the growing season to influence the character of the soil and promote plant communities adopted for life in saturated soil conditions.

#### 4.1.2 Hydric Soils

Wetlands exhibit hydric soils. These are soils which are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions. These are conditions where no free oxygen is present in the upper soil horizons. Typical field indicators of hydric soils are the presence of a thick organic layer, or in predominantly mineral soils such as found on this site, a low chroma matrix (gray color) and/or bright mottling. Soil chromas are determined by comparing soil samples with color chips in the Munsell Color Charts.

Soils onsite were found to be generally consistent with the descriptions of #124 Skipopa silt loam (0-3 percent) and #17 Bow gravelly loam (3 – 8 percent). Areas exhibiting hydric soil characteristics were generally found at locations subject to a high water table consistent with hydric criteria 2, a) as described under subsection 3.2 of this report.

#### 4.1.3 Hydrophytic Vegetation

The U.S. Fish and Wildlife Service has classified wetland vegetation according to its frequency of occurrence in wetlands:

Obligate wetland species (OBL) occur in wetlands greater than 99% of the time.

Facultative wetland species (FACW) occur in wetlands greater than 67% of the time.

Facultative species (FAC) occur in wetlands 34%-66% of the time.

Facultative upland species (FACU) occur in wetlands less than 34% of the time.

Upland species (UPL) occur in wetlands less than 1% of the time.

Generally the hydrophytic vegetation parameter is satisfied when greater than 50% of the species present at an observation point have an indicator status of OBL, FACW and/or FAC; when two or more dominant species have observed morphological or known physiological adaptations for occurrence in wetlands; or when other indicators of hydrophytic vegetation are present.

Vegetation onsite was observed to be predominantly a mix of facultative trees, shrubs and groundcover with few obligate or upland species. Obligate species were limited to communities of skunk cabbage within the banks of Maddox Creek and slough sedge (*Carex obnupta*) found in isolated communities within the forested portion of central wetland.

### **5. Data Collection**

Prior to our site investigation, the wetland identified as Wetland A in 2009 was surveyed and marked with flagged stakes. The wetland boundary was traversed. A single transect was established along a topographic break in the southern pasture. Two (2) data points (DP-3 & DP-4) were assessed to correspond and confirm with our findings relative to data points (DP-1 & DP-2)

assessed in 2009. Soil test pits were dug to a depth of 20 inches. Hydrology, soil and vegetation were assessed at each data point. Data was documented in field notes for subsequent transfer to wetland determination data forms. Photographs were taken of soil profiles and test pits. Data collected is summarized on the following table. (Attachment A: Wetland Determination Data Forms)

Table 1 – Wetland Data Summary

DP	HYDROLOGY	SOIL	VEGETATION	STATUS
**1	*oxidized rhizospheres	*gravelly silt loam 10YR 3/1-5% mottles 7.5YR 5/6	* <i>Anthoxanthum odoratum</i> FACU (30%) <i>Juncus effusus</i> FACW (20%) <i>Festuca pratensis</i> FAC (20%)	Wet
**2	no indicators	sandy silt loam 7.5YR 2.5/3	* <i>Phalaris arundinacea</i> FACW (70%) <i>Agrostis tenuis</i> FAC (20%) <i>Rubus discolor</i> FACU (3%)	Up
3	no indicators	sandy loam – 2.5Y 4/3 – 5% redox – 7.5YR 4/6	* <i>Rubus armeniacus</i> FACU (5%) <i>Phalaris arundinacea</i> FACW (50%) <i>Holcus lanatus</i> FAC (20%) <i>Agrostis tenuis</i> FAC (20%)	Up
4	*water table @ 4” – saturation to surface	*sandy silt loam – 10YR 2/1 -	* <i>Phalaris arundinacea</i> FACW (90%) <i>Holcus lanatus</i> FAC (5%) <i>Agrostis tenuis</i> FAC (5%)	Wet

\* Wetland parameter met

\*\* Data collected and assessed during delineation conducted in spring of 2009



Photo 3 – View of soil profile and test pit at Data point 3 showing light matrix chroma and absence of water table

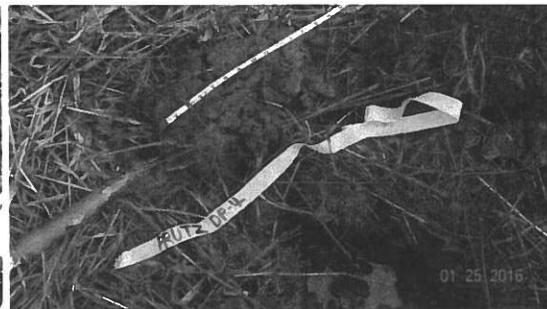


Photo 4 – View of soil profile and test pit at data point 4 showing dark matrix chroma and water table at 4 inches from soil surface.

Based on assessment of data points 3 and 4, the wetland boundary associated with wetland A as delineated in 2009 was confirmed. Wetland A is a 93,213 square foot (2.1 acre) depressional wetland that includes palustrine emergent seasonally flooded and palustrine scrub shrub seasonally flooded classes (Cowardin et. al., 1979). The wetland is the dominant landscape feature over the pasture area north of the existing homesites and extends to the east into an area dominated by scrub shrub vegetation. The wetland receives its hydrologic charge from localized on site and off site stormwater runoff, precipitation and a seasonal high water table. Indicators of wetland hydrology were present at data point 4 in the form of a seasonal high water table and saturation to the soil surface. Drainage patterns were present at a number of locations within the wetland and a prominent ditch draining to Maddox Creek appears to represent an historic attempt at draining the pasture area for agricultural purposes. Soil is a sandy silt loam, exhibiting hydric indicators in a very dark matrix chroma accompanied by contrasting redoximorphic features.

Vegetation consists of facultative grasses dominated by reed canary grass. The wetland transitions from the pasture east to a mixed scrub shrub community dominated by salmonberry (*Rubus spectabilis*). (Attachment B: Wetland Delineation Site Plan)

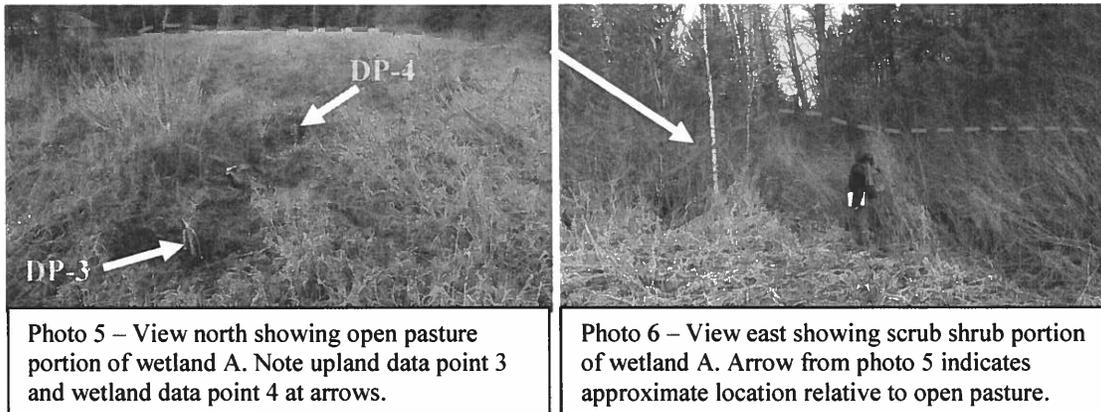


Photo 5 – View north showing open pasture portion of wetland A. Note upland data point 3 and wetland data point 4 at arrows.

Photo 6 – View east showing scrub shrub portion of wetland A. Arrow from photo 5 indicates approximate location relative to open pasture.

### 6. Wetland Rating & Wetland Functions

The wetland was rated under the Washington State Wetland Rating System for Western Washington, 2014 Update (October 2014 – Effective January 2015). The rating system is designed to differentiate between wetlands based on their sensitivity to disturbance, rarity, the functions they provide and whether or not they can be replaced. The rating system divides wetlands into six different hydrogeomorphic (HGM) classes. These classes sort wetlands into groups that function in similar ways. The rating system then rates the wetlands based on specific functional attributes relating to water quality, hydrologic and habitat functions. The following table summarizes the assessment of wetland A as detailed in the ratings attached to the report. (Attachment C: Wetland Rating Forms)

Table 2: Wetland Rating Summary

Wetland	HGM	Cowardin	Water Quality	Hydrologic	Habitat	Total	Category
Part A	Sloped	*PEMA	7	6	6	19	III

\*PEMA = Palustrine Emergent Temporarily Flooded

\*PSSFOC = Palustrine Scrub Shrub Forested Seasonally Flooded

Wetland A was rated as Category III with a total of 19 points. Category III wetlands are wetlands with a moderate level of functions. These wetlands have generally been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

**Water Quality Functions** - Because the average slope of the site varies to a maximum of 3 percent, includes mowed or cut herbaceous vegetation over approximately 90% of the unit area and is seasonally ponded it has the potential to improve water quality. The wetland receives stormwater from adjacent developed areas which rely on onsite sewage disposal systems suggesting that the wetland unit may provide a moderate level of water quality benefit.

**Hydrologic Functions** – The wetland unit includes an intermittently flowing ditch with restricted outlet, small depressions within the overall boundaries and a contributing basin 10 to 100 times the size of the wetland itself indicating that the unit has the potential to benefit hydrologic functions. Because surface flooding problems occur farther down gradient in the basin, the wetland unit has a moderate capacity to reduce flooding and erosion.

Habitat – The unit is dominated by two vegetation classes which include vigorous communities of invasive reed canary grass and small areas of native shrubs. The unit is temporarily or seasonally flooded and in many areas exhibits a hydro period limited to saturation. Interspersion of wetland classes is moderate and special habitat features are limited. While habitat functions are very limited, the site does represent a relatively large open space tract and possible migration corridor associated with the riparian area of Maddox Creek.

Wetland A is relatively large in the context of its urbanizing environment. Its proximity and hydrologic contribution to Maddox Creek constitutes a moderate benefit to the area. The wetland provides seasonal augmentation to the flow of Maddox Creek which in turn provides habitat for returning adult and outmigrating juvenile salmonids. The wetland provides habitat for a variety of large and small mammals, amphibians, birds of prey, and passerine bird species.

### **7. Stream Study**

GBA identified the location of the OHWM based on guidance contained in the definition included in the CAO under section 15.40.170 B.

“Ordinary High Water Mark: On lakes and streams, that mark that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual, and so long continues in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on the effective date of regulations, as it may naturally change thereafter, or as it may change in accordance with permits issued by the City or state. Where the ordinary high water mark cannot be found, it shall be the stage of the stage of the 50 percent exceedance flow, according to the period of record of a measured or synthetic hydrograph. For braided streams, the ordinary high water mark is found on the banks forming the outer limits of the depression within which the braiding occurs.”

Section 15.40.080 D. 3. provides additional guidance relating to identification of the OHWM as it relates to buffer measurement:

“... Buffers shall be measured from the ordinary high water mark (OHWM) or from the top of the bank where the OHWM cannot be identified. ...”

The OHWM was identified along the top of bank of the incised channel. In several areas the top of bank was consistent with an associated wetland edge. No attempt was made to delineate the wetland as the OHWM and wetland edge were determined to be coexistent. The OHWM was subsequently surveyed.

The general character and classification of Maddox Creek was discussed earlier in this report under existing conditions. The creek is bordered by a mature forested buffer which provides a full range of riparian functions including:

LWD Recruitment - Large conifers are generally the preferred source of LWD, the presence of mature forest community dominated by Douglas fir and western red cedar provides an ongoing source for recruitment of woody material into the stream. LWD promotes complexity within the stream and provides holding areas for salmonids and resident fish species.

Bank Stability – The three strata vegetation community along the riparian corridor promotes bank stability through establishment of deep root systems. The anchored roots help hold the gravelly

silt loam of the banks intact and minimize the forces of erosion, sedimentation and increased turbidity.

Shade - The forest canopy provides shade during low flow summer months and helps to maintain cool temperatures and maintain dissolved oxygen levels required by salmonids and resident fish species.

Water Quality – Shrubs and emergent vegetation contiguous to the OHWM provide for the filtering of sediments and pollutants. The filtering function helps prevent delivery of sediments and pollutants to receiving waters.

Fish and Wildlife Habitat – While no salmonids or resident fish species were observed during our site investigation, Maddox Creek is reportedly utilized by Coho salmon (*Oncorhynchus kisutch*) and cutthroat trout (*Salmo clarki clarki*).

### **8. Mitigation**

Subsection 15.40.090 F. 1. of the CAO establishes the standard buffer width for Category III wetlands at 75 feet. Buffers are measured on a horizontal plane landward of the wetland edge as surveyed in the field. The standard buffer width presumes the presence of a relatively intact native vegetation community. GBA consider the existing emergent, scrub shrub and forested condition of upland buffers to be consistent with the “relatively intact” standard. Buffers are to be maintained in an undisturbed natural condition. Adherence to the standard buffer requirement is generally considered the preferred method of “avoiding” project generated impacts and no additional mitigation is required.

Subsection 15.40.080 D. 3. establishes the standard buffer width for streams classified as F type water at 150 feet. In addition to the standard buffer width a 15 foot building setback is required from the outside edge of the buffer. If native vegetation communities are insufficient in providing the necessary buffer functions, enhancement plantings may be required. GBA have determined through our site investigation that the existing mature forested buffer and diverse native understory provide sufficient riparian functions including: LWD recruitment, shade, bank stability, water quality and wildlife habitat.

### **9. Closure**

GBA utilized currently accepted standards, methods and protocols in assessing the subject property. The professional opinions rendered in this report should, however, be reviewed by agencies of jurisdiction for concurrence prior to initiating land use actions or construction activities. Please call either Patricia Bunting or myself with any questions relating to this report. We are available to confer with agency representatives relative to our findings and conclusions at your request.

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Oscar Graham  
Wetland Ecologist/Environmental Planner

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Patricia Bunting  
Wetland Ecologist, PWS

## 10. References

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WSP. 2008. City of Mount Vernon Stream Survey Maps. Data collected by WSP Environment and Energy Seattle, WA. Data Summarized and Presented by City of Mount Vernon, January 2009.

**Attachment A: Wetland Determination Data Forms**

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

Project/Site: Short plat/2601 East Blackburn Rd, City/County: Mount Vernon/Skagit County Sampling Date: 1/25/16

Applicant/Owner: Dave Pruztman/Maggie Wallace State: WA Sampling Point: DP-3

Investigator(s): Pat & Oscar, Graham-Bunting Associates Section, Township, Range: S 28, T34N, R4E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-5

Subregion (LRR): A, Northwest Forests and Coast Lat: 48.408140 Long: -122.308922 Datum: \_\_\_\_\_

Soil Map Unit Name: #17, Bow gravelly loam, 3-8% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Data is collected near wetland flag 1 on south end of wetland A	

### VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>25r</u> )	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				_____ = Total Cover
<b><u>Sapling/Shrub Stratum</u> (Plot size: <u>10r</u>)</b>				
1. <u>Rubus armeniacus</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				<u>5</u> = Total Cover
<b><u>Herb Stratum</u> (Plot size: <u>5r</u>)</b>				
1. <u>Phalaris arundinacea</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Holcus lanatus</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Agrostis tenuis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Dactylis glomerata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u>Juncus effusus</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
				<u>101</u> = Total Cover
<b><u>Woody Vine Stratum</u> (Plot size: <u>10r</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
				_____ = Total Cover
<b>% Bare Ground in Herb Stratum _____</b>				

Remarks: Hydrophytic vegetation indicator, >50% FAC or greater, is met.

<b>Dominance Test worksheet:</b>	
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>75%</u> (A/B)
<b>Prevalence Index worksheet:</b>	
<u>    Total % Cover of:</u>	<u>    Multiply by:</u>
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 = _____	
<b>Hydrophytic Vegetation Indicators:</b>	
<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation	
<input checked="" type="checkbox"/> Dominance Test is >50%	
<input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>	
<input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> Wetland Non-Vascular Plants <sup>1</sup>	
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

**SOIL**

Sampling Point: DP-3

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 <sup>1</sup>		
0-8	10YR2/2	100				sandy, silt lm	
8+	2.5Y4/3	95	7.5YR4/6	5	C	M	sandy lm

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

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b> <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)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <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)
--	--

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

Remarks: Hydric soil indicators are not met. Soil chroma below 8 inches is 3 with redox.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
<b>Primary Indicators (minimum of one required; check all that apply)</b> <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)	<b>Secondary Indicators (2 or more required)</b> <input type="checkbox"/> Water-Stained Leaves (B9) (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)

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): >12" _____ Saturation Present?    Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): 10" _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

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

Remarks: Wetland hydrology indicators are not met. Soil saturation and watertable are below 10 and 12".

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

Project/Site: Short plat/2601 East Blackburn Rd. City/County: Mount Vernon/Skagit County Sampling Date: 1/25/16

Applicant/Owner: Dave Pruztman/Maggie Wallace State: WA Sampling Point: DP-4

Investigator(s): Pat & Oscar, Graham-Bunting Associates Section, Township, Range: S 28, T34N, R4E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 2-5

Subregion (LRR): A, Northwest Forests and Coast Lat: 48.408140 Long: -122.308922 Datum: \_\_\_\_\_

Soil Map Unit Name: #17, Bow gravelly loam, 3-8% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

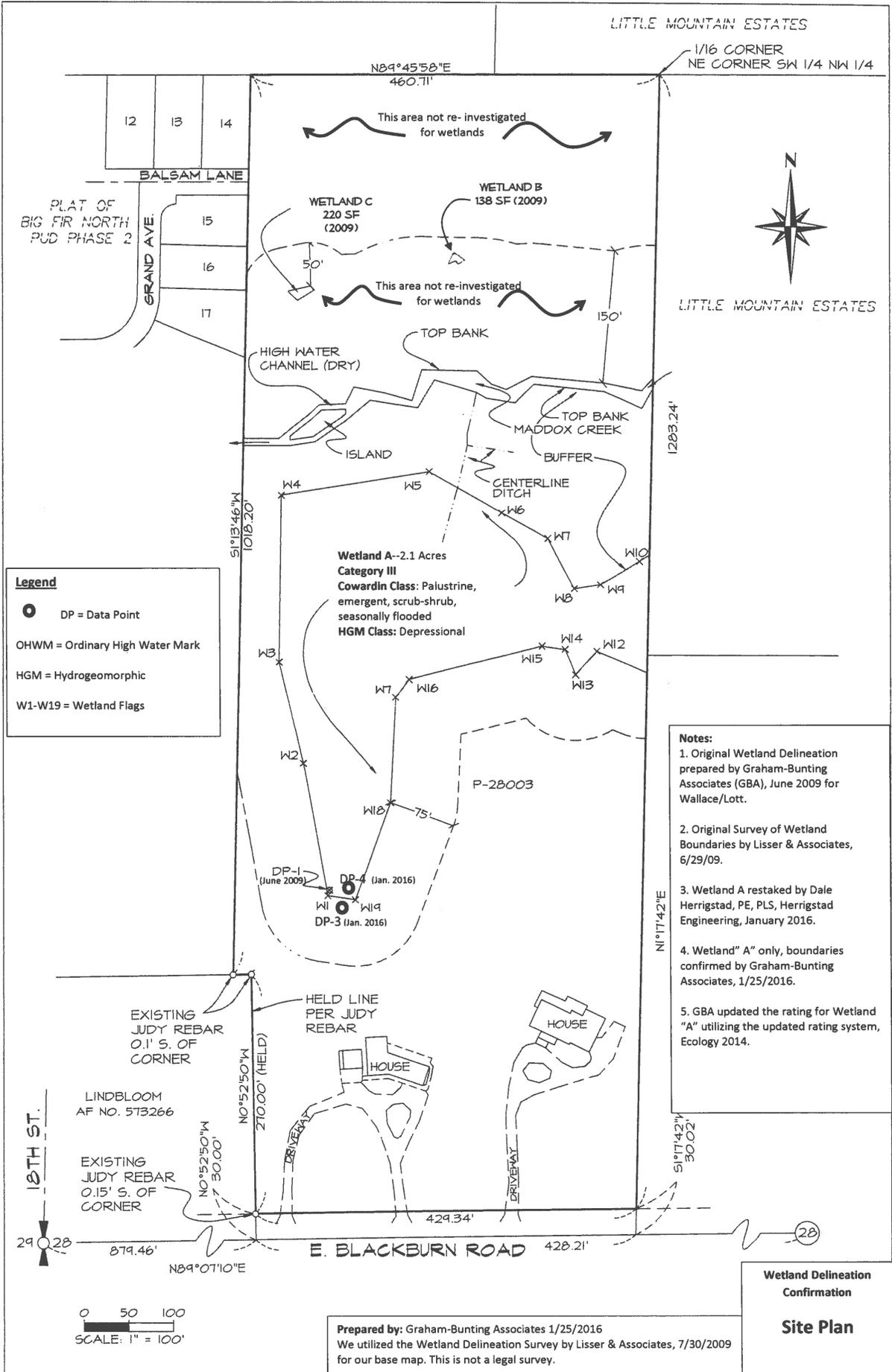
**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Data is collected near wetland flag 1 on south end of wetland A	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: <u>25r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b>  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>10r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Holcus lanatus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Agrostis tenuis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. <u>Juncus effusus</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
<u>101</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>10r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: Hydrophytic vegetation indicator, >50% FAC or greater, is met. Dominance test is 100%				





Wetland Delineation Confirmation  
**Site Plan**  
 Attachment B

**Attachment C: Wetland Rating Forms**

Wetland name or number A Sect 28, T34N, R4E

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): "A" PRUTZMAN/WALLACE Date of site visit: 5/28/09 to 4/1/09  
 Rated by Pat Bunting Trained by Ecology?  Yes  No Date of training 9-30-14  
 HGM Class used for rating Depressional Wetland has multiple HGM classes?  Y  N

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

Source of base aerial photo/map imap - Skagit County, Google Earth  
CITY OF MOUNT VERNON - 2000 INVENTORY

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

### 1. Category of wetland based on FUNCTIONS

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

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <u>L</u>	H <u>M</u> L	H <u>M</u> L	
Landscape Potential	<u>H</u> M L	H <u>M</u> L	H M <u>L</u>	
Value	<u>H</u> M L	H <u>M</u> L	<u>H</u> M L	<b>TOTAL</b>
Score Based on Ratings	7	6	6	19

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

- 9 = H,H,H
- 8 = H,H,M
- 7 = H,H,L
- 7 = H,M,M
- 6 = H,M,L
- 6 = M,M,M
- 5 = H,L,L
- 5 = M,M,L
- 4 = M,L,L
- 3 = L,L,L

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	NA

Wetland name or number \_\_\_\_\_

## Maps and figures required to answer questions correctly for Western Washington

### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website) ✓	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web) ✓	D 3.3	

### Riverine Wetlands

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

### Lake Fringe Wetlands

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

### Slope Wetlands

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

*If your wetland can be classified as a Flats 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 type 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

**NO** - go to 6

**YES** - The wetland class is **Riverine**

**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**

<b>D 1.0. Does the site have the potential to improve water quality?</b>		
<b>D 1.1. Characteristics of surface water outflows from the wetland:</b> <i>Site Plan</i>		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3		
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ✓		
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1		2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		
<b>D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 (No = 0)</b>		
0		
<b>D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</b> <i>Site Plan</i>		
Wetland has persistent, ungrazed, plants > 95% of area points = 5		
Wetland has persistent, ungrazed, plants > 1/2 of area points = 3		
Wetland has persistent, ungrazed plants > 1/10 of area <i>mowed field &gt; 1/2</i> points = 1 ✓		1
Wetland has persistent, ungrazed plants < 1/10 of area points = 0		
<b>D 1.4. Characteristics of seasonal ponding or inundation:</b> <i>Hydroperiods Site Plan</i>		
<i>This is the area that is ponded for at least 2 months. See description in manual.</i>		
Area seasonally ponded is > 1/2 total area of wetland points = 4		
Area seasonally ponded is > 1/4 total area of wetland ✓ points = 2 ✓		2
Area seasonally ponded is < 1/4 total area of wetland points = 0		
Total for D 1	Add the points in the boxes above	5

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

<b>D 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
D 2.1. Does the wetland unit receive stormwater discharges? <i>1 km poly of area</i>	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source _____	Yes = 1 (No = 0)	0
Total for D 2	Add the points in the boxes above	3

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

<b>D 3.0. Is the water quality improvement provided by the site valuable to society?</b>		
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)	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)	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	(Yes = 2) No = 0	2
Total for D 3	Add the points in the boxes above	2

**Rating of Value** If score is: X 2-4 = 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**

<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b>		
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	2
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	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
<b>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.</b>		
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	1
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water ✓	points = 1 ✓	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
<b>D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.</b>		
The area of the basin is less than 10 times the area of the unit	points = 5	3
The area of the basin is 10 to 100 times the area of the unit ✓	points = 3 ✓	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
<b>Total for D 4</b>	<b>Add the points in the boxes above</b>	<b>6</b>

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

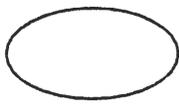
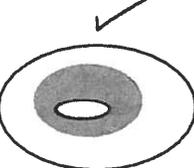
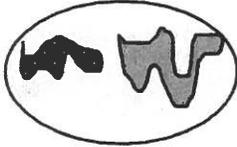
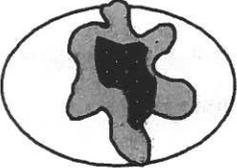
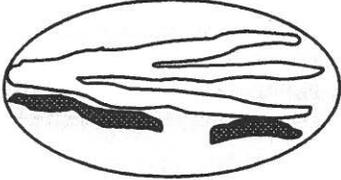
<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b>	Yes = 1 No = 0 ✓	0
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b>	(Yes = 1) No = 0	1
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)? <i>Surrounded development drains away</i></b>	Yes = 1 (No = 0)	0
<b>Total for D 5</b>	<b>Add the points in the boxes above</b>	<b>1</b>

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

<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.</b>		
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 redds):		
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	1
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1 ✓	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b>	Yes = 2 No = 0 ✓	0
<b>Total for D 6</b>	<b>Add the points in the boxes above</b>	<b>1</b>

**Rating of Value** If score is: 2-4 = H X 1 = M 0 = L Record the rating on the first page

Wetland name or number A

<b>These questions apply to wetlands of all HGM classes.</b>	
<b>HABITAT FUNCTIONS - Indicators that site functions to provide important habitat</b>	
<b>H 1.0. Does the site have the potential to provide habitat?</b>	
<p>H 1.1. Structure of plant community: <i>Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.</i></p> <p> <input type="checkbox"/> Aquatic bed <span style="float: right;">4 structures or more: points = 4</span>  <input checked="" type="checkbox"/> Emergent <span style="float: right;">3 structures: points = 2</span>  <input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have &gt; 30% cover) <span style="float: right;">2 structures: points = 1</span> ✓ <span style="float: right;">1</span>  <input type="checkbox"/> Forested (areas where trees have &gt; 30% cover) <span style="float: right;">1 structure: points = 0</span>  <i>If the unit has a Forested class, check if:</i>  <input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon                 </p>	
<p>H 1.2. Hydroperiods</p> <p>Check the types of water regimes (hydroperiods) present <u>within the wetland</u>. The water regime has to cover more than 10% of the wetland or ¼ ac to count (<i>see text for descriptions of hydroperiods</i>).</p> <p> <input type="checkbox"/> Permanently flooded or inundated <span style="float: right;">4 or more types present: points = 3</span>  <input checked="" type="checkbox"/> Seasonally flooded or inundated <span style="float: right;">3 types present: points = 2</span>  <input type="checkbox"/> Occasionally flooded or inundated <span style="float: right;">2 types present: points = 1</span> ✓ <span style="float: right;">1</span>  <input checked="" type="checkbox"/> Saturated only <span style="float: right;">1 type present: points = 0</span>  <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland <span style="float: right;">2 points</span>  <input type="checkbox"/> Seasonally flowing stream in, or adjacent to, the wetland <span style="float: right;">2 points</span>  <input type="checkbox"/> Lake Fringe wetland  <input type="checkbox"/> Freshwater tidal wetland                 </p>	
<p>H 1.3. Richness of plant species</p> <p>Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>.  <i>Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle</i></p> <p>If you counted: &gt; 19 species <span style="float: right;">points = 2</span>                      5 - 19 species ✓ <span style="float: right;">points = 1</span> ✓ <span style="float: right;">1</span>                      &lt; 5 species <span style="float: right;">points = 0</span></p>	
<p>H 1.4. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. <i>If you have four or more plant classes or three classes and open water, the rating is always high.</i></p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>None = 0 points</p> </div> <div style="text-align: center;">  <p>Low = 1 point</p> </div> <div style="text-align: center;">  <p>Moderate = 2 points</p> </div> <div style="text-align: center;">  ✓                 </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>All three diagrams in this row are <b>HIGH</b> = 3 points</p>	2

Wetland name or number A

<p>H 1.5. Special habitat features:          Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i>  <input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in diameter and 6 ft long).  <input checked="" type="checkbox"/> Standing snags (dbh &gt; 4 in) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>)  <input checked="" type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)  <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>		3
Total for H 1	Add the points in the boxes above	8

**Rating of Site Potential** If score is: 15-18 = H 8-14 = M 0-6 = L *Record the rating on the first page*

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

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

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

**Rating of Value** If score is: X 2 = 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 counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: **NOTE: This question is independent of the land use between the wetland unit and the priority habitat.**

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- X **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- X **Old-growth/Mature forests** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- X **Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- X **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><i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i></p>	
<p><b>SC 1.0. Estuarine wetlands</b>            Does the wetland meet the following criteria for Estuarine wetlands?            — The dominant water regime is tidal,            — Vegetated, and            — With a salinity greater than 0.5 ppt            Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p><b>SC 1.1.</b> Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?            Yes = <b>Category I</b>    No - Go to <b>SC 1.2</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 1.2.</b> Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?            — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i>, see page 25)            — At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland.            — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.            Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b>  <b>Cat. II</b></p>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b>  <b>SC 2.1.</b> Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value?            Yes – Go to <b>SC 2.2</b>    <b>No = Go to SC 2.3</b>  <b>SC 2.2.</b> Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?            Yes = <b>Category I</b>    <b>No = Not a WHCV</b>  <b>SC 2.3.</b> Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?  <a href="http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf">http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf</a>            Yes – <b>Contact WNHP/WDNR and go to SC 2.4</b>    <b>No = Not a WHCV</b>  <b>SC 2.4.</b> Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website?            Yes = <b>Category I</b>    <b>No = Not a WHCV</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 3.0. Bogs</b>            Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES you will still need to rate the wetland based on its functions.</i>  <b>SC 3.1.</b> Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile?            Yes – Go to <b>SC 3.3</b>    <b>No = Go to SC 3.2</b>  <b>SC 3.2.</b> Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?            Yes – Go to <b>SC 3.3</b>    <b>No = Is not a bog</b>  <b>SC 3.3.</b> Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?            Yes = <b>Is a Category I bog</b>    No – Go to <b>SC 3.4</b>  <b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.  <b>SC 3.4.</b> Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann 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 under the canopy?            Yes = <b>Is a Category I bog</b>    No = <b>Is not a bog</b></p>	<p><b>Cat. I</b></p>

Wetland name or number A

<p><b>SC 4.0. Forested Wetlands</b> ✓</p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (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.</li> <li>— <b>Mature forests</b> (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).</li> </ul> <p>Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— 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).</li> <li>— At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109</li> </ul> <p>Yes – Go to <b>SC 6.1</b>    <b>No = not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b> Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b> Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b> Yes = <b>Category III</b>    No = <b>Category IV</b></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b> If you answered No for all types, enter "Not Applicable" on Summary Form</p>	<p><b>NA</b></p>



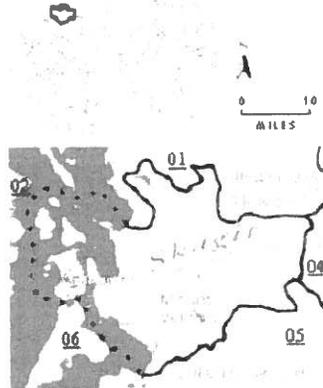


## Water Quality Improvement Projects (TMDLs)

[Water Quality Improvement](#) > [Water Quality Improvement Projects by WRIA](#) > WRIA 3: Lower Skagit-Samish

### WRIA 3: Lower Skagit-Samish

The following table lists overview information and links to specific water quality improvement projects (including total maximum daily loads, or TMDLs) for this water resource inventory area ([WRIA](#)). Please use links (where available) for more information on a project.



#### Counties

- [Skagit](#)
- [Snohomish](#)
- [Whatcom](#)

Waterbody Name	Pollutant(s)	Status**	TMDL Lead
<a href="#">Campbell Lake</a>	Total Phosphorus	EPA approved	<a href="#">Tricia Shoblom</a> 425-649-7288
<a href="#">Erie Lake</a>	Total Phosphorus	EPA approved	<a href="#">Tricia Shoblom</a> 425-649-7288
<a href="#">Padilla Bay</a>	Fecal Coliform	Under development	<a href="#">Danielle DeVoe</a> 425-649-7036
<a href="#">Samish Watershed</a>	Fecal Coliform	EPA approved Has an implementation plan	<a href="#">Danielle DeVoe</a> 425-649-7036
<a href="#">Skagit Basin</a>	Fecal Coliform	EPA approved Has an implementation plan	<a href="#">Danielle DeVoe</a> 425-649-7036
	Temperature	EPA approved	

\*\* Status will be listed as one of the following: Approved by EPA, Under Development or Implementation

#### For more information about WRIA 3:

- [Waterbodies in WRIA 3](#) - using the Water Quality Assessment Query Tool
- [Watershed Information for WRIA 3](#)

\* The Department of Ecology and other state resource agencies frequently use a system of 62 "Water Resource Inventory Areas" or "WRIAs" to refer to the state's major watershed basins.

Last updated September 2015

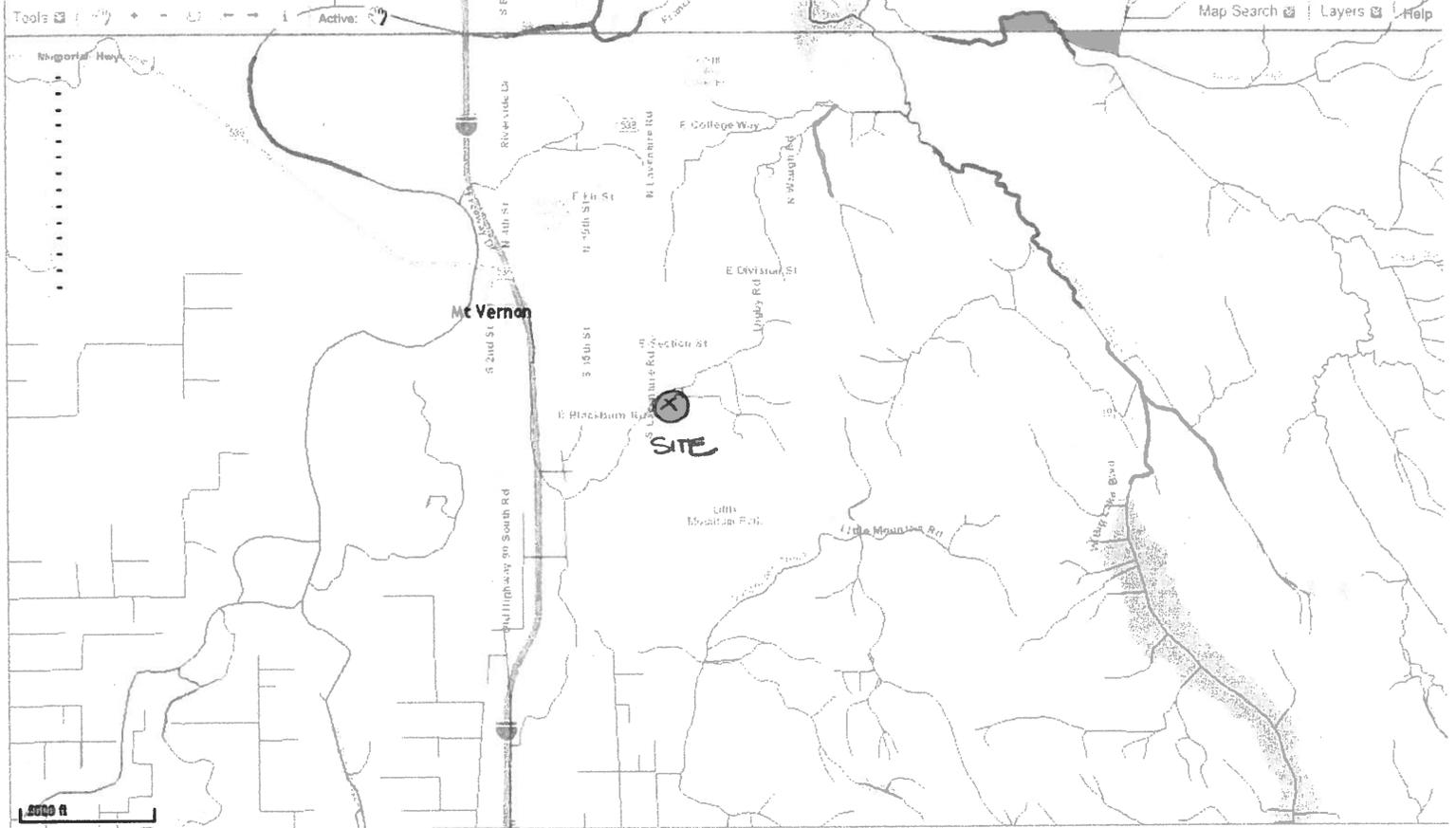
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*Rating Page 18*



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*Rating Page 19*

# Skagit County GIS Map



### Skagit County iMap

SKAGIT COUNTY does not attest to the accuracy to the data contained herein and makes no warranty with respect to the correctness or validity of this map. Data contained in this map is limited by the method and accuracy of its collection.

**Map Scale: 1 inch = 968 Feet (1 inch = 0.2 Miles)**

1 KM POLYCON

RATING: Page 20



Dave Prutzman <samishbay@gmail.com>

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**RE: Tree Inventory/7 lot short plat**

1 message

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**Lowell, Rebecca** <rebeccab@mountvernonwa.gov>  
To: Dave Prutzman <samishbay@gmail.com>

Fri, Jan 8, 2016 at 2:12 PM

Hi Dave:

The riparian management zone is a term that would become important only if your project was proposing buying down buffer areas through our ecosystem alternative program. My recollection is that you are not proposing doing this – i.e., you will be placing the standard buffer on the stream and wetland areas – which means that the tree information is not necessary.

Thank you,

Rebecca Bradley-Lowell

Senior Planner

Community & Economic Development Department

910 Cleveland Ave / P.O. Box 809

Mount Vernon, WA 98273

360.336.6214

**From:** Dave Prutzman [mailto:samishbay@gmail.com]

**Sent:** Wednesday, January 06, 2016 2:15 PM

**To:** Lowell, Rebecca

**Subject:** Tree Inventory/7 lot short plat

Rebecca,

I need some clarification on something. In the Application Materials Worksheet under the category "Stream Study, Standard" paragraph h: the second sentence states "Include position, species and size of all trees at least 4 inches dbh that are within the Inner and Outer Riparian Management Zone". First off, I'm not familiar with the term "Riparian Management Zone" but assume it has to do with areas inside and outside of Critical Area Buffers. Reading this sounds like the City wants every tree on the entire 13 acres surveyed and those larger than 4 inches dbh identified and located on a survey map, both inside and outside of the Critical Area Buffer Zone. There will be at least many hundreds of trees involved and I'm not sure what is being accomplished. Thanks.

--

Dave Prutzman

Samish Bay Land Company