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AOA

Environmental
Planning &
Landscape
Architecture



April 25, 2025

Laura Sagen
lauras@sagengroup.com

AOA-6955

SUBJECT: **Critical Areas Report for 16916 – 185th Ave. NE**
Parcel 072606-9054, King County, WA (DWEL22-0550)
Revised

Dear Laura:

We have updated this critical areas report and attached plan to address the comments presented in the April 2, 2025 Ecological Review RFI #2. The primary revision was to revise the required mitigation for the boardwalk from a 1:1 ratio to a 6:1 ratio.

1.0 BACKGROUND AND EXISTING CRITICAL AREAS

The site is located along the west shore of Cottage Lake and is currently developed with your existing single-family residence and associated yard areas.

On November 1, 2022 I conducted an initial wetland reconnaissance throughout the western portion of the site utilizing the methodology outlined in the May 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. The primary focus of the initial reconnaissance was to: 1) confirm that the wetland boundary previously delineated by others and subsequently surveyed had not changed, 2) rate the wetland per the current rating system, 3) assess buffer impacts associated with the new drainfield and ADU project, and 4) identify mitigation areas for buffer impacts.

On March 8, 2023 I conducted a second site review in the eastern portion of the site to review an unpermitted raised boardwalk along the shoreline of the lake.

One very large wetland (Wetland A) is located along the western, southern, and eastern portions of the site. This wetland is associated with Cottage Lake and was determined to be a Depressional Hydrogeomorphic (HGM) class per WA Department of Ecology guidance. Since the wetland boundary as previously surveyed in the western portion of the site appears to be generally accurate, the

wetland was not re-delineated to enable use of the previous survey. The wetland and Ordinary High Water (OHW) of the lake in the eastern portion of the site was approximated.

Attachment A contains data sheets prepared for a representative location in both the wetland and upland. These data sheets document the vegetation, soils, and hydrology information that aided in the wetland boundary verification.

Wetland A currently meets the criteria for a Category I wetland with 8 Habitat Points (**Attachment B**) and requires a standard 225-foot buffer and 15-foot structure setback. This buffer encumbers the entire property. Cottage Lake is a Type S Aquatic Area that requires a 165-foot buffer that is located entirely within the more restrictive wetland buffer.

2.0 PROPOSED PROJECT

The proposed project consists of a small (235 s.f.) expansion to the existing garage/ALQ structure. The new structural footprint cannot impact more than 1,000 s.f. of buffer area over the footprint of the existing structure and this threshold is met. In addition, a new primary and reserve septic drainfield for the ALQ will impact 2,414 s.f. of buffer area for a total buffer impact of 2,649 s.f.

The area of buffer impact consists of a mix of yard areas and an upland Douglas fir (*Pseudotsuga menziesii*) forest with an understory of salal (*Gaultheria shallon*), Oregongrape (*Mahonia* sp.), red huckleberry (*Vaccinium parvifolium*), English holly (*Ilex aquilinum*), sword fern (*Polystichum munitum*), and trailing blackberry (*Rubus ursinus*).

Mitigation for the 2,649 s.f. of buffer impact will occur by enhancing 2,649 s.f. of degraded wetland and buffer in the southwest portion of the site. Mitigation will consist of removing an existing dilapidated greenhouse and invasive species and re-planting with a variety of native trees and shrubs to significantly increase the plant species and structural diversity within the planting area. If requested by the County a rail fence could be installed along the edge of the proposed planting area.

2.1 Raised Boardwalk

A 58' by 4' (232 s.f.) boardwalk has been constructed along the shoreline of Cottage Lake. KCC Shoreline Code 21A.25.140.E.1 allows private access from a single detached residence to the shoreline provided it meets certain criteria (below).

- (1) *Not exceed three feet in width;*

Although the boardwalk is 4 feet in width it is my understanding that you are requesting a reasonable accommodation policy (RAP) to allow the boardwalk to remain at 4 feet wide since you are physically disabled with MS and require the use of a cane, walker and wheelchair. A 3-foot wide boardwalk does not allow for safe wheelchair access.



View of existing boardwalk to be permitted.

- (2) *Avoid removal of significant trees and other woody vegetation to the maximum extent practical; and*

The boardwalk was constructed through an area of emergent and herbaceous vegetation with small patches of shrubs and saplings. No significant woody vegetation was removed during construction.

- (3) *Avoid a location that is parallel to the shoreline to the maximum extent practical. (Ord. 16985 § 36, 2010).*

The boardwalk was constructed perpendicular and not parallel to the shoreline.

Since the area beneath the boardwalk continues to be wetland, mitigation for the 232 s.f. of converting a scrub-shrub wetland to an emergent wetland will occur by enhancing 1,392 s.f. (6:1 ratio) of existing yard wetland and buffer that is currently lawn. Enhancement will consist of removing the lawn and re-planting with native trees and shrubs.

2.2 Goal, Objectives, and Performance Standards for Mitigation Area

The primary goal of the mitigation plan is to increase the habitat function of the enhanced wetlands and buffer. To meet this goal, the following objectives and performance standards have been incorporated into the design of the plan:

Objective A: Increase the structural and plant species diversity within the mitigation area.

Performance Standard: *There will be 100% survival of all woody planted species throughout the mitigation areas at the end of the first year of planting. For Years 2-3, success will be based on an 85% survival rate or similar number of recolonized native woody plants. Areal coverage of plantings or native re-colonized woody species will be at least 10% at Year 1, 20% at Year 2, and 50% at Year 3.*

Objective B: Limit the amount of invasive and exotic species within the mitigation area.

Performance Standard: *After construction and following every monitoring event for a period of three years, exotic and invasive plant species will be maintained at levels below 10% total cover in all planted areas.*

2.3 Construction Management

Prior to commencement of any work in the mitigation areas, the clearing limits will be staked and any existing vegetation to be saved will be clearly marked. A pre-construction meeting should be held at the site to review and discuss all aspects of the project with the landscape contractor and/or owner.

A consultant will supervise plan implementation during construction to ensure that objectives and specifications of the mitigation plan are met. Any necessary significant modifications to the design that occur because of unforeseen site

conditions will be jointly approved by King County and the consultant prior to their implementation.

2.4 Monitoring Methodology

The monitoring program will be conducted for a period of three years, with annual reports submitted to the County. Vegetation monitoring will include general appearance, health, mortality, colonization rates, percent cover, percent survival, volunteer plant species, and invasive weeds.

Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress in plant community establishment in the mitigation area. Review of the photos over time will provide a visual representation of the success of the mitigation plan.

2.5 Maintenance Plan

Maintenance will be conducted on a routine, year-round basis. Additional maintenance needs will be identified and addressed following periodic maintenance reviews. Routine removal and control of non-native and other invasive plants within the designated mitigation area shall be performed. Undesirable and weedy exotic plant species shall be maintained at levels below 10% total cover within the mitigation areas during the monitoring period.

Routine maintenance of planted trees and shrubs shall be performed. Measures include resetting plants to proper grades and upright positions. Tall grasses and other competitive weeds shall be weeded at the base of plants to prevent engulfment.

2.6 Contingency Plan

All dead plants will be replaced with the same species or an approved substitute species that meets the goal of the mitigation plan. Plant material shall meet the same specifications as originally installed material. Replanting will not occur until after the reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.). Replanting shall be completed under the direction of the consultant, King County, or the owner.

2.7 As-Built Plan

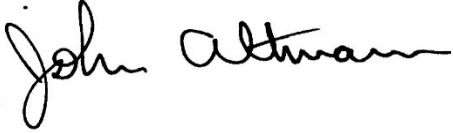
Following completion of construction activities, an as-built plan for the mitigation areas will be provided to King County. The plan will identify and describe any changes in relation to the original approved plan

Laura Sagen
April 25, 2025
Page 6 of 6

If you have any questions regarding the proposed mitigation, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

A handwritten signature in black ink that reads "John Altmann". The signature is written in a cursive, flowing style.

John Altmann
Ecologist

Attachments

185TH AVE NE

PLAN LEGEND

- PROPERTY LINE
- EDGE OF COTTAGE LAKE
- WETLAND BOUNDARY
- ~WETLAND BOUNDARY
- 225' WETLAND BUFFER ENCUMBERS ENTIRE SITE
- CLEARING LIMITS
- LAWN
- EXISTING TREES
- ORNAMENTAL PLANTING BED

BUFFER IMPACT LEGEND

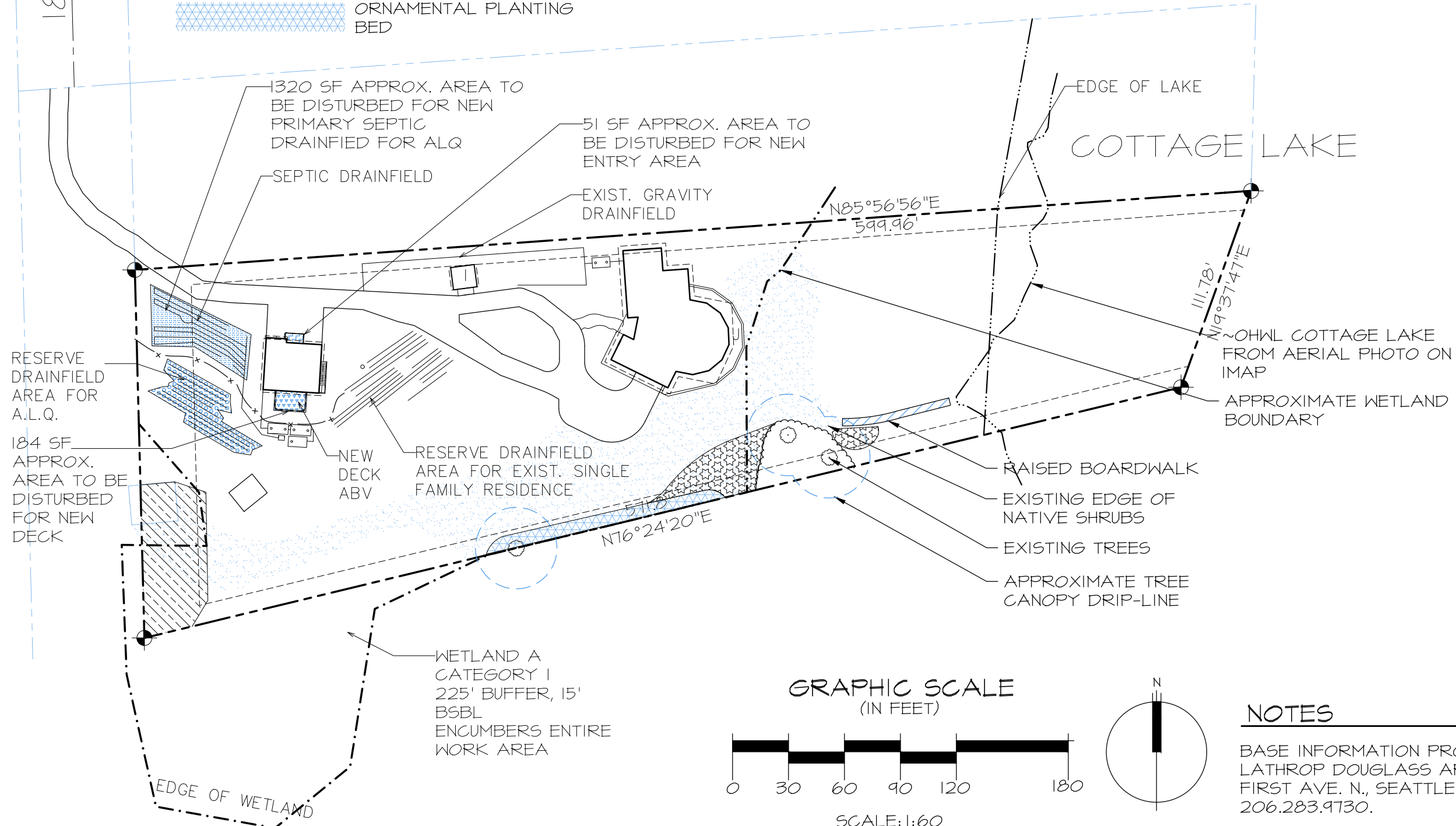
- NEW DECK IN BUFFER 184 SF
- NEW ENTRY AREA 51 SF
- PRIMARY DRAINFIELD 1,320 SF
- RESERVE DRAINFIELD 1,094 SF
- TOTAL NEW BUFFER IMPACT 2,649 SF

SHADED WETLAND IMPACT

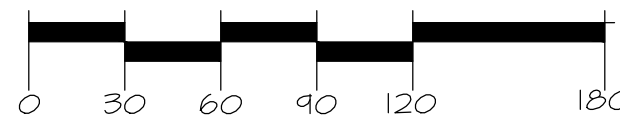
- RAISED BOARDWALK - 4'X58' 232 SF

MITIGATION LEGEND

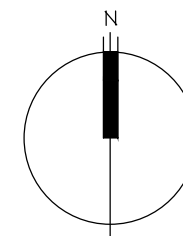
- AREA 1 - BUFFER ENHANCEMENT 2,649 SF
- AREA 2 - MITIGATION FOR BOARDWALK 1,392 SF



GRAPHIC SCALE (IN FEET)

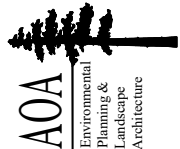


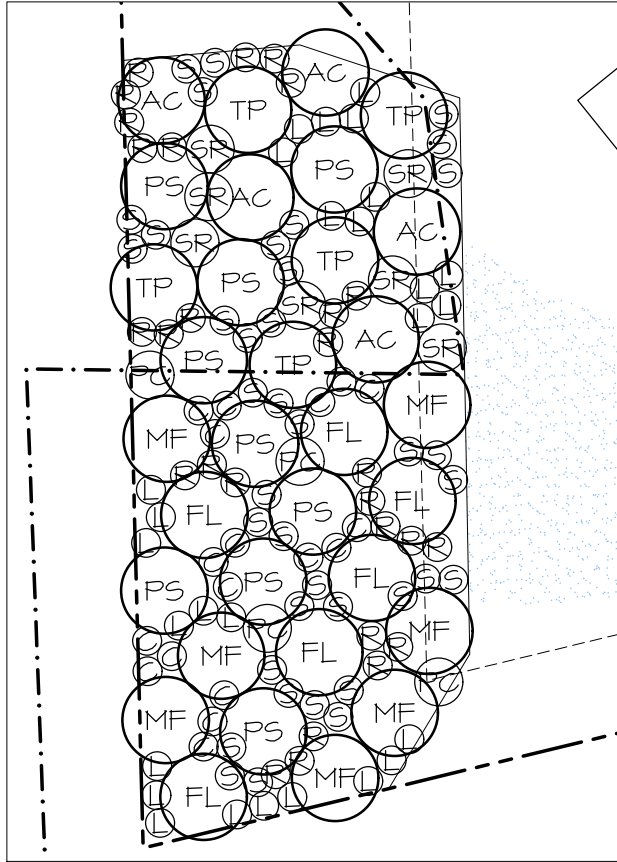
SCALE: 1:60



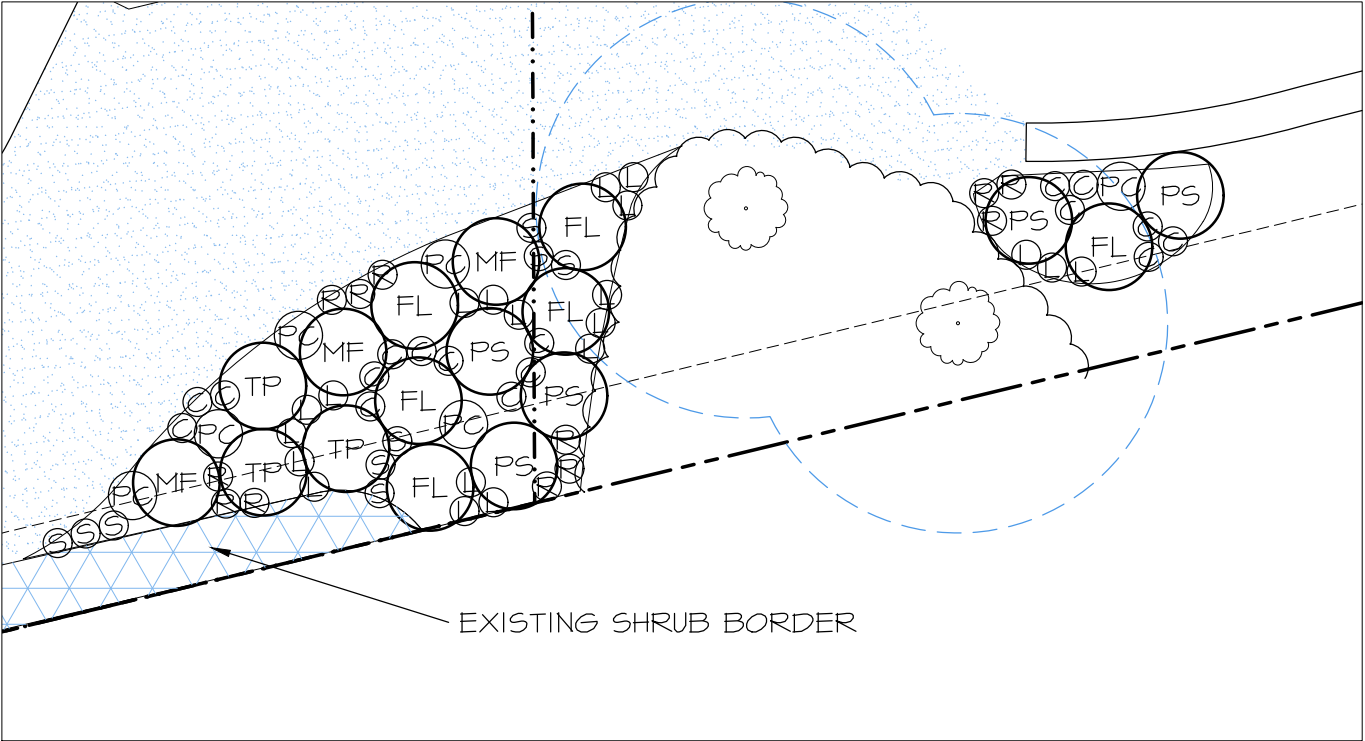
NOTES

BASE INFORMATION PROVIDED BY
LATHROP DOUGLASS ARCHITECTS, 1719
FIRST AVE. N., SEATTLE, WA 98109,
206.283.9730.

PROJECT 6955	SCALE AS NOTED	DATE 3-27-24	REVISED 4-22-25
FIGURE 1: BUFFER IMPACTS AND MITIGATION SAGEN CARRIAGE HOUSE 16916 185TH AVE. NE, WOODINVILLE, WA 98072 KING COUNTY PARCEL: 0726069054			
 Almann Oliver Associates, LLC Environmental Planning & Landscape Architecture PO Box 578 Corvallis, WA 97331 Office (509) 333-4333 Fax (509) 333-4599			
6955-MIT-04-22-25.dwg			



AREA 1 - PLANTING PLAN
SCALE - 1:20



AREA 2 - PLANTING PLAN
SCALE - 1:20

PLANT SCHEDULE

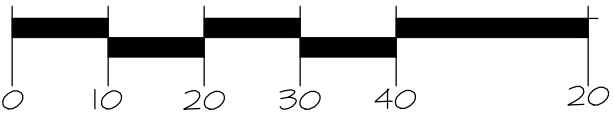
TREES

KEY	SCIENTIFIC NAME	COMMON NAME	QTY
AC	ACER CIRCINATUM	VINE MAPLE	5
FL	FRAXINUS LATIFOLIA	OREGON ASH	12
MF	MALUS FUSCA	WESTERN CRABAPPLE	10
PS	PICEA SITCHENSIS	SITKA SPRUCE	14
TP	THUJA PLICATA	WESTERN RED CEDAR	8

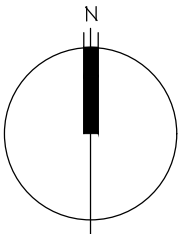
SHRUBS

KEY	SCIENTIFIC NAME	COMMON NAME	QTY
C	CORNUS SERICEA	RED-OSIER DOGWOOD	35
L	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	47
PC	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	10
R	ROSA PISOCARPA	CLUSTERED ROSE	40
SR	SAMBUCUS RACEMOSA	RED ELDERBERRY	7
S	SYMPHORICARPOS ALBUS	SNOWBERRY	47

GRAPHIC SCALE
(IN FEET)

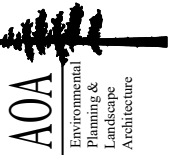


SCALE: 1:20



NOTES

BASE INFORMATION PROVIDED BY
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FIGURE 2: PLANTING PLAN
SAGEN CARRIAGE HOUSE
16916 185TH AVE. NE, WOODINVILLE, WA 98072
KING COUNTY PARCEL: 0T26069054

PROJECT	6955
DRAWN	KV
SCALE	AS NOTED
DATE	3-27-24
REVISED	4-22-25

2/4

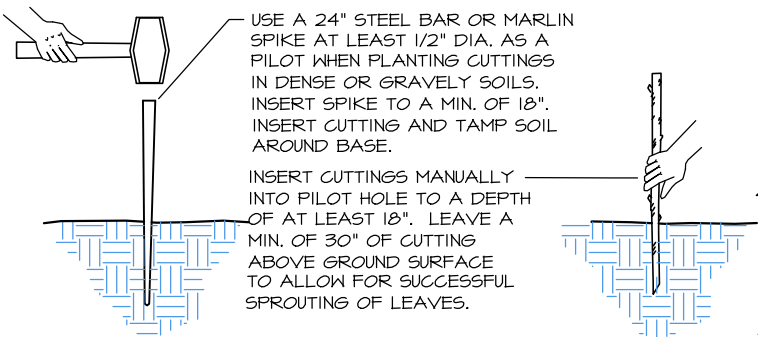
PLANT SCHEDULE

TREES

KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	QTY	SIZE (MIN.)	NOTES
AC	ACER CIRCINATUM	VINE MAPLE	9' O.C.	5	2 GAL.	MULTI-TRUNK (3 MIN.)
FL	FRAXINUS LATIFOLIA	OREGON ASH	9' O.C.	12	2 GAL.	SINGLE TRUNK
MF	MALUS FUSCA	WESTERN CRABAPPLE	9' O.C.	10	2 GAL.	SINGLE TRUNK
PS	PICEA SITCHENSIS	SITKA SPRUCE	9' O.C.	14	2 GAL.	FULL & BUSHY
TP	THUJA PLICATA	WESTERN RED CEDAR	9' O.C.	8	2 GAL.	FULL & BUSHY

SHRUBS

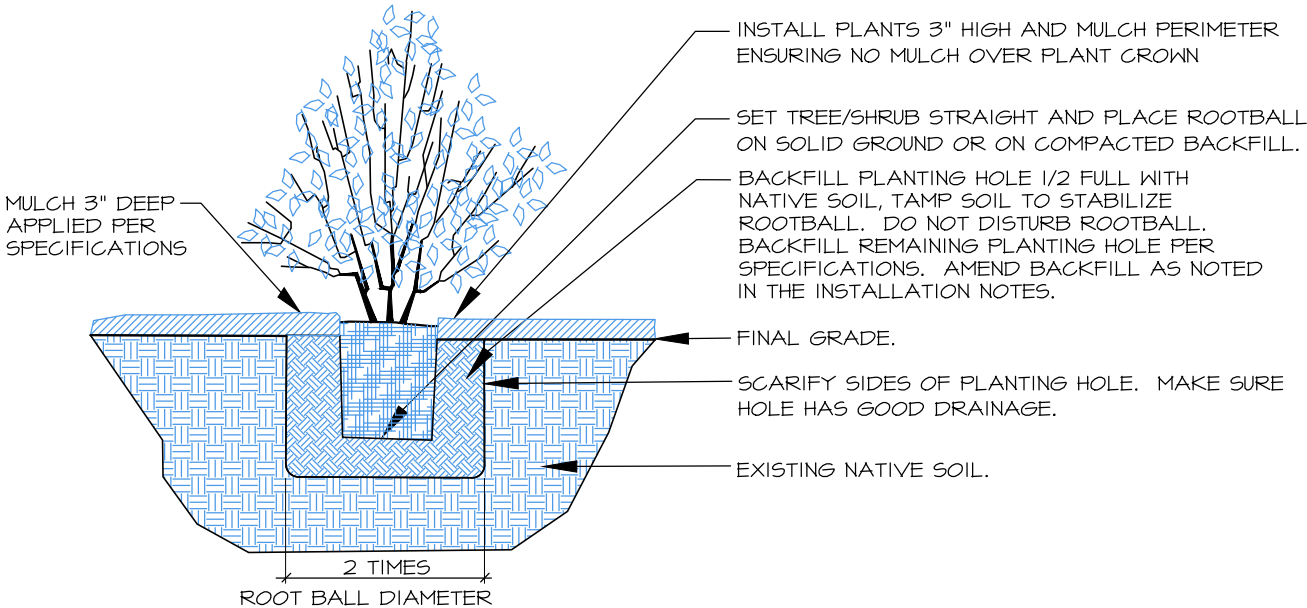
KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	QTY	SIZE (MIN.)	NOTES
C	CORNUS SERICEA	RED-OSIER DOGWOOD	6' O.C.	35	1 GAL.	MULTI-CANE (3 MIN.)
L	LONICERA INVOLUCRATA	BLACK TWIN-BERRY	6' O.C.	47	1 GAL.	FULL & BUSHY
PC	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	6' O.C.	10	1 GAL.	MULTI-CANE (3 MIN.)
R	ROSA PISOCARPA	CLUSTERED ROSE	6' O.C.	40	1 GAL.	FULL & BUSHY
SR	SAMBUCUS RACEMOSA	RED ELDERBERRY	6' O.C.	7	1 GAL.	FULL & BUSHY
S	SYMPHORICARPOS ALBUS	SNOWBERRY	6' O.C.	47	1 GAL.	FULL & BUSHY



USE A 24" STEEL BAR OR MARLIN SPIKE AT LEAST 1/2" DIA. AS A PILOT WHEN PLANTING CUTTINGS IN DENSE OR GRAVELY SOILS. INSERT SPIKE TO A MIN. OF 18". INSERT CUTTING AND TAMP SOIL AROUND BASE.

INSERT CUTTINGS MANUALLY INTO PILOT HOLE TO A DEPTH OF AT LEAST 18". LEAVE A MIN. OF 30" OF CUTTING ABOVE GROUND SURFACE TO ALLOW FOR SUCCESSFUL SPROUTING OF LEAVES.

- NOTES:
- CUTTINGS SHALL BE SPECIES AS NOTED IN THE PLANT SCHEDULE.
 - CUTTINGS SHALL BE AT LEAST 1/2" DIA. AND 4' (min.) IN LENGTH.
 - CUTTINGS MUST BE ALIVE WITH SIDE BRANCHES CLEARLY REMOVED AND BARK INTACT. CUTTINGS SHALL BE PLANTED WITHIN 24 HOURS OF CUTTING.
 - THE BUTT ENDS SHOULD BE CLEANLY CUT AT AN ANGLE FOR EASY INSERTION INTO THE SOIL. THE TOP SHOULD BE CUT SQUARE OR BLUNT.
 - CUTTINGS MUST BE FRESH AND KEPT MOIST AFTER CUTTING. THEY SHOULD BE PRUNED AND INSTALLED THE SAME DAY.
 - DIP BOTTOM OF CUTTING IN A PLANT ROOTING HORMONE PRIOR TO INSERTION INTO THE SOIL.



- INSTALL PLANTS 3" HIGH AND MULCH PERIMETER ENSURING NO MULCH OVER PLANT CROWN
- SET TREE/SHRUB STRAIGHT AND PLACE ROOTBALL ON SOLID GROUND OR ON COMPACTED BACKFILL.
- BACKFILL PLANTING HOLE 1/2 FULL WITH NATIVE SOIL, TAMP SOIL TO STABILIZE ROOTBALL. DO NOT DISTURB ROOTBALL. BACKFILL REMAINING PLANTING HOLE PER SPECIFICATIONS. AMEND BACKFILL AS NOTED IN THE INSTALLATION NOTES.
- FINAL GRADE.
- SCARIFY SIDES OF PLANTING HOLE. MAKE SURE HOLE HAS GOOD DRAINAGE.
- EXISTING NATIVE SOIL.

1 CUTTING INSTALLATION (TYP.)
SCALE: NTS

2 CONTAINER TREE/SHRUB PLANTING DETAIL (TYP.)
SCALE: NTS

SPECIFICATIONS

1. PRIOR TO PLANTING, GREENHOUSE AND ALL NON-ORGANIC DEBRIS AND NON-NATIVE VEGETATION SHALL BE REMOVED AND SOD WILL BE STRIPPED AND EXPORTED OFF SITE.

2. IMPORTED DEJONG'S FERTIL-MULCH SHALL BE REPLACED IN THE MITIGATION AREAS, AS NECESSARY, TO ACHIEVE PRE-DEVELOPMENT GRADES. AFTER SOIL PLACEMENT, TILL SOILS TO A DEPTH OF 6 INCHES.

3. ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH UNLESS IRRIGATION IS PROVIDED AT TIME OF PLANT INSTALLATION.

4. ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PITS SHALL BE BACKFILLED WITH A 30/70 MIX OF STEERCO TO NATIVE SOIL. PITS SHALL BE AMENDED WITH A HYDRATED SOIL POLYMER (INSTALLED AT RATES PER MANUFACTURER'S SPECIFICATION). PLANTS SHALL BE INSTALLED 2" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH WOOD CHIPS PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED. DO NOT PUT MULCH OVER PLANT CROWN.

5. ALL TREES SHALL BE 2-GALLON MIN. ALL SHRUBS SHALL BE 1-GALLON MIN.

6. NATIVE PLANT CUTTINGS SHALL BE GROWN AND COLLECTED IN THE MARITIME PACIFIC NORTHWEST. CUTTINGS SHALL BE OF ONE- TO TWO-YEAR-OLD WOOD, 1/2" DIA. MINIMUM. CUTTINGS SHALL BE A MINIMUM OF 4' IN LENGTH WITH 4 LATERAL BUDS EXPOSED ABOVE GROUND AFTER PLANTING. THE TOP OF EACH CUTTING SHALL BE A MINIMUM OF 1" ABOVE A LEAF BUD, THE BOTTOM CUT 2" BELOW A BUD A MINIMUM OF 18" DEEP. THE BASAL ENDS OF THE CUTTINGS SHALL BE CUT AT A 45 DEGREE ANGLE AND MARKED CLEARLY SO THAT THE ROOTING END IS PLANTED IN THE SOIL. CUTTINGS MUST BE KEPT COVERED AND MOIST DURING STORAGE AND TRANSPORT, AND NO CUTTINGS SHALL BE STORED MORE THAN THREE DAYS FROM DATE OF CUTTING. CUTTINGS SHALL ONLY BE USED IF PLANTING OCCURS BETWEEN DECEMBER 1ST AND APRIL 1ST. FOR PLANTING BETWEEN APRIL 1ST AND DECEMBER 1ST, ROOTED CUTTINGS OR SAPLINGS SHALL BE USED.

7. ALL PLANTS SHALL BE NURSERY GROWN (IN W. WA OR OR.) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.

8. PLANT LAYOUT SHALL BE APPROVED BY AOA PRIOR TO INSTALLATION AND APPROVED UPON COMPLETION OF PLANTING.

9. ALL PLANTINGS SHALL BE HAND-WATERED OR IRRIGATED WITH AN ABOVE-GROUND, TEMPORARY IRRIGATION SYSTEM AT A RATE OF 1/2" OF FLOW 2-3 TIMES WEEKLY, FROM JUNE 15-OCT 15 THE FIRST YEAR AFTER PLANTING. THE SECOND YEAR, FLOW SHOULD BE REDUCED TO PROVIDE 1/2" OF FLOW 1-2 TIMES WEEKLY FROM JULY 1-SEPT 30. THE SYSTEM CAN BE REMOVED AT THE END OF THE 3-YEAR MONITORING PERIOD.

10. UPON APPROVAL OF PLANTING INSTALLATION BY AOA, KING COUNTY WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.

11. PERFORMANCE STANDARDS INCLUDE: 1) FOLLOWING EVERY MONITORING EVENT FOR A PERIOD OF AT LEAST THREE YEARS, THE OVERALL MITIGATION AREA WILL CONTAIN AT LEAST 7 NATIVE PLANT SPECIES. FOLLOWING YEAR 1, THERE WILL BE 100% SURVIVAL RATE OF ALL PLANTED TREE AND SHRUB SPECIES OR EQUIVALENT REPLACEMENT OF A COMBINATION OF PLANTED AND RE-COLONIZED NATIVE SPECIES AND 85% FOLLOWING YEARS 2 AND 3. 2) AFTER CONSTRUCTION AND FOLLOWING EVERY MONITORING EVENT FOR A PERIOD OF AT LEAST THREE YEARS, EXOTIC AND INVASIVE PLANT SPECIES WILL BE MAINTAINED AT LEVELS BELOW 10% TOTAL COVER IN ALL PLANTED AREAS. THESE SPECIES INCLUDE, BUT ARE NOT LIMITED TO; HIMALAYAN AND EVERGREEN BLACKBERRY, REED CANARYGRASS, PURPLE LOOSESTRIPE, MORNING GLORY, JAPANESE KNOTWEED, ENGLISH IVY, THISTLE, PERIWINKLE, SCOT'S BROOM, POISON HEMLOCK, LAUREL, STINKY BOB AND CREEPING NIGHTSHADE. 3) NATIVE WOODY COVERAGE WILL BE 10% AT YEAR 1, 20% AT YEAR 2 AND 50% AT YEAR 3.

12. MONITORING WILL OCCUR ON A TWICE YEARLY BASIS WITH REPORTS SUBMITTED TO KING COUNTY AT THE ANNIVERSARY OF CONSTRUCTION APPROVAL. REPORT WILL INCLUDE A SUMMARY OF SUCCESS OF THE MITIGATION AREA IN RELATION TO THE APPROVED PERFORMANCE STANDARDS. REPORTS WILL ALSO INCLUDE PHOTOS TAKEN FROM VARIOUS POINTS AT CONSTRUCTION COMPLETION.

13. IF THERE IS A SIGNIFICANT PROBLEM WITH THE MITIGATION ACHIEVING IT'S PERFORMANCE STANDARDS, THE BOND HOLDER SHALL WORK WITH KING COUNTY TO DEVELOP A CONTINGENCY PLAN. CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO, REGRADING, ADDITIONAL PLANT INSTALLATION, EROSION CONTROL, MODIFICATIONS TO HYDROLOGY, AND PLAN SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION. SUCH CONTINGENCY PLAN SHALL BE SUBMITTED TO KING COUNTY BY DECEMBER 31 OF ANY YEAR WHEN DEFICIENCIES ARE DISCOVERED.

14. A PERFORMANCE BOND WILL BE POSTED, PRIOR TO PLAN APPROVAL - SEE KING COUNTY BOND WORKSHEET.

15. MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

16. UPON COMPLETION OF THE LAST MONITORING REPORT, IF PERFORMANCE STANDARDS ARE MET, AOA WILL PROVIDE A FINAL REPORT TO THE COUNTY REQUESTING BOND RELEASE. UPON FINAL APPROVAL BY THE COUNTY, THE BOND WILL BE RELEASED AND THE PROJECT WILL BE COMPLETE.

ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			1		1		1			1		
GENERAL MAINT.			1		1		1			1		
WATERING - YEAR 1						4	8	8	8	4		
WATERING - YEAR 2							4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

MAINTENANCE WILL INCLUDE:

1. REMOVAL OF NON-NATIVE PLANTS, BY HAND, AS LISTED ABOVE.
2. CONTINUED APPLICATION OF IRRIGATION, AS NOTED ABOVE.
3. REMOVAL OF PEST INFESTATIONS, LIKE TENT CATERPILLAR AND SPRUCE APHID, AS DETAILED BY AOA IN THE MONITORING REPORT.
4. REPLACEMENT OF PLANTS, AS DIRECTED BY AOA, IF MORTALITY EXCEEDS 20%.
5. THINNING OF RED ALDER AND MOWING OF TALL GRASSES, AS DIRECTED BY AOA TO ENSURE SURVIVAL OF PLANTED SPECIES.
6. ANY ADDITIONAL ITEMS IDENTIFIED BY AOA DURING THE THREE-YEAR MONITORING PERIOD.

King County iMap



King County, EagleView Technologies, Inc.

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 1/9/2023

Notes:



King County

ATTACHMENT A

DATA SHEETS

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

Project Site: Parcel 072606-9054 City/County: /King Sampling Date: 11-1-22
 Applicant/Owner: Sagan State: WA Sampling Point: DP#1
 Investigator(s): John Altmann, Dain Altmann Section, Township, Range: S7.T26N.R6E
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): A Lat: 47.75036 Long: -122.09133 Datum:
 Soil Map Unit Name: 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: Located 10' into wetland.			

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 10)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Malus fusca</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>7</u> (B)
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u>	= Total Cover		
<u>Sapling/Shrub Stratum (Plot size: 10)</u>				
1. <u>domestic apple</u>	<u>15</u>	<u>yes</u>	<u>NL (UPL)</u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x1 = <u> </u> FACW species <u> </u> x2 = <u> </u> FAC species <u> </u> x3 = <u> </u> FACU species <u> </u> x4 = <u> </u> UPL species <u> </u> x5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
2. <u>domestic fig</u>	<u>15</u>	<u>yes</u>	<u>NL (UPL)</u>	
3. <u>Cornus sericea</u>	<u>15</u>	<u>yes</u>	<u>FACW</u>	
4. <u>nootka rose</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u>	= Total Cover		
<u>Herb Stratum (Plot size: 10)</u>				
1. <u>Equisetum telmateia</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: ☐ 1 – Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ 5 - Wetland Non-Vascular Plants ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Ranunculus repens</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
3. <u>Lamiastrum galeobdolon</u>	<u>5</u>	<u>no</u>	<u>NL (UPL)</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>37.5</u> , 20% = <u>15</u>	<u>75</u>	= Total Cover		
<u>Woody Vine Stratum (Plot size: 10)</u>				
1. <u>Rubus ursinus</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes ☒ No ☐
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>5</u> , 20% = <u>2</u>	<u>10</u>	= Total Cover		
% Bare Ground in Herb Stratum <u> </u>				
Remarks:				

Project Site: Parcel 072606-9054

SOIL

Sampling Point: DP#1

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		
0-16	10YR3/1	100					GLC	gravelly clay

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)	
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)	
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)		
☒ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)		
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)		
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soils Present? Yes ☒ No ☐
Remarks:	

HYDROLOGY

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

Field Observations:					
Surface Water Present?	Yes	☐	No	☒	Depth (inches): _____
Water Table Present?	Yes	☐	No	☒	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches): <u>15</u>
Wetland Hydrology Present? Yes ☒ No ☐					
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: Parcel 072606-9054 City/County: /King Sampling Date: 11-1-22
 Applicant/Owner: Sagan State: WA Sampling Point: DP#2
 Investigator(s): John Altmann, Dain Altmann Section, Township, Range: S7.T26N.R6E
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): A Lat: 47.75036 Long: -122.09133 Datum:
 Soil Map Unit Name: 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 ☐ No ☒	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: Located 10' into upland from wetland boundary.			

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 10)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Pseudotsuga menziesii</u>	<u>100</u>	<u>yes</u>	<u>FACU</u>	
2. <u>Acer circinatum</u>	<u>20</u>	<u>no</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>60</u> , 20% = <u>24</u>	<u>120</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10)				
1. <u>Thuja plicata</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u> </u> x1 = <u> </u> FACW species <u> </u> x2 = <u> </u> FAC species <u> </u> x3 = <u> </u> FACU species <u> </u> x4 = <u> </u> UPL species <u> </u> x5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
2. <u>Vaccinium parvifolium</u>	<u>25</u>	<u>yes</u>	<u>FACU</u>	
3. <u>Ilex aquifolium</u>	<u>2</u>	<u>no</u>	<u>FACU</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>28.5</u> , 20% = <u>11.4</u>	<u>57</u>	= Total Cover		
Herb Stratum (Plot size: 10)				
1. <u>Lamium galeobdolon</u>	<u>15</u>	<u>yes</u>	<u>NL (UPL)</u>	Hydrophytic Vegetation Indicators: ☐ 1 – Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ 5 - Wetland Non-Vascular Plants ¹ ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u>	= Total Cover		
Woody Vine Stratum (Plot size: 20)				
1. <u>Rubus ursinus</u>	<u>20</u>	<u>yes</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes ☐ No ☒
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u>	= Total Cover		
% Bare Ground in Herb Stratum <u> </u>				
Remarks:				

Project Site: Parcel 072606-9054

SOIL

Sampling Point: DP#2

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		
0-15	10YR3/3	100	_____	_____	_____	_____	GSL	gravelly sandy loam
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)	
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ Red Parent Material (TF2)	
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)	
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)	
☐ Depleted Below Dark Surface (A11)	☐ Depleted Matrix (F3)		
☐ Thick Dark Surface (A12)	☐ Redox Dark Surface (F6)		
☐ Sandy Mucky Mineral (S1)	☐ Depleted Dark Surface (F7)		
☐ Sandy Gleyed Matrix (S4)	☐ Redox Depressions (F8)		

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

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soils Present? Yes ☐ No ☒
Remarks: No redoximorphic features	

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Water-Stained Leaves (B9)	☐ Water-Stained Leaves (B9)	☐ Water-Stained Leaves (B9)	☐ Water-Stained Leaves (B9)
☐ High Water Table (A2)	☐ Salt Crust (B11)	☐ Salt Crust (B11)	☐ Salt Crust (B11)	☐ Salt Crust (B11)	☐ Salt Crust (B11)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Aquatic Invertebrates (B13)	☐ Aquatic Invertebrates (B13)	☐ Aquatic Invertebrates (B13)	☐ Aquatic Invertebrates (B13)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Hydrogen Sulfide Odor (C1)	☐ Hydrogen Sulfide Odor (C1)	☐ Hydrogen Sulfide Odor (C1)	☐ Hydrogen Sulfide Odor (C1)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Presence of Reduced Iron (C4)	☐ Presence of Reduced Iron (C4)	☐ Presence of Reduced Iron (C4)	☐ Presence of Reduced Iron (C4)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Iron Deposits (B5)	☐ Stunted or Stresses Plants (D1) (LRR A)	☐ Stunted or Stresses Plants (D1) (LRR A)	☐ Stunted or Stresses Plants (D1) (LRR A)	☐ Stunted or Stresses Plants (D1) (LRR A)	☐ Stunted or Stresses Plants (D1) (LRR A)
☐ Surface Soil Cracks (B6)	☐ Other (Explain in Remarks)	☐ Other (Explain in Remarks)	☐ Other (Explain in Remarks)	☐ Other (Explain in Remarks)	☐ Other (Explain in Remarks)
☐ Inundation Visible on Aerial Imagery (B7)					
☐ Sparsely Vegetated Concave Surface (B8)					

Field Observations:					
Surface Water Present?	Yes	☐	No	☒	Depth (inches): _____
Water Table Present?	Yes	☐	No	☒	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches): _____
					Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: dry					

ATTACHMENT B

WETLAND RATING

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Parcel 072606-9054 Date of site visit: 11/1/2022Rated by Altmann Trained by Ecology? ☒ Yes ☐ No Date of training 03/08 & 03/15HGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? ☒ Yes ☐ No**NOTE: Form is not complete with out the figures requested (figures can be combined).**Source of base aerial photo/map King County iMAPOVERALL WETLAND CATEGORY I (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>List appropriate rating (H, M, L)</i>				
Site Potential	H	M	H	
Landscape Potential	H	H	M	
Value	H	H	H	Total
Score Based on Ratings	9	8	8	25

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	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	X

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).	points = 3	2
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	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
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		4
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	3
Wetland has persistent, ungrazed, plants > 1/2 of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
<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	4
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
Total for D 1		Add the points in the boxes above
		13

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?		
D 2.1. Does the wetland unit receive stormwater discharges?	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?		0
Source	Yes = 1 No = 0	
Total for D 2		Add the points in the boxes above
		3

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 improvement provided by the site valuable to society?		
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	1
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	1
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
		4

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

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 erosion?****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) | 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 | |

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.*

- | | | |
|---|------------|---|
| Marks of ponding are 3 ft or more above the surface or bottom of outlet | points = 7 | 5 |
| 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 | |

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.*

- | | | |
|---|------------|---|
| ☐ 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 | |

Total for D 4 Add the points in the boxes above **10****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 function of the site?****D 5.1. Does the wetland unit receive stormwater discharges?** Yes = 1 No = 0 **1****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 **1****D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?** Yes = 1 No = 0 **1****Total for D 5** Add the points in the boxes above **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?****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.**

- | | | |
|--|------------|---|
| 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): | | 2 |
| ☒ Flooding occurs in a sub-basin that is immediately down-gradient of unit. | points = 2 | |
| ☐ 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 | |

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** Add the points in the boxes above **2****Rating of Value** If score is: ☒ 2 - 4 = H ☐ 1 = M ☐ 0 = L Record the rating on the first page

These questions apply to wetlands of all HGM classes.**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- | | | |
|--|----------------------------------|---|
| ☐ Aquatic bed | 4 structures or more: points = 4 | 4 |
| ☒ Emergent | 3 structures: points = 2 | |
| ☒ Scrub-shrub (areas where shrubs have > 30% cover) | 2 structures: points = 1 | |
| ☒ Forested (areas where trees have > 30% cover) | 1 structure: points = 0 | |
| <i>If the unit has a Forested class, check if:</i> | | |
| ☒ 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 | | |

H 1.2. Hydroperiods

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

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

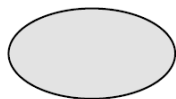
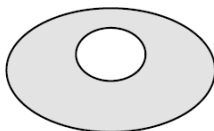
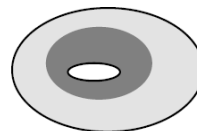
H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft². *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*

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

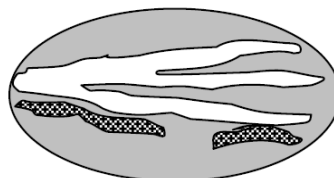
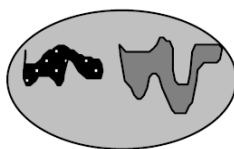
H 1.4. Interspersion of habitats

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

**None** = 0 points**Low** = 1 point**Moderate** = 2 points

3

All three diagrams
in this row are
HIGH = 3 points



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>		4
☒ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) ☒ Standing snags (dbh > 4 in) within the wetland ☒ 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) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) ☒ 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>) ☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)		
Total for H 1		
Add the points in the boxes above		
16		

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

H 2.0. Does the landscape have the potential to support the habitat function of the site?		
H 2.1 Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). <i>Calculate:</i> 7.7 % undisturbed habitat + (6.8 % moderate & low intensity land uses / 2) = 11.1%		
If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 2 10 - 19% of 1 km Polygon points = 1 < 10 % of 1 km Polygon points = 0		1
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. <i>Calculate:</i> 18 % undisturbed habitat + (28.5 % moderate & low intensity land uses / 2) = 32.25%		
Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0		2
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 1km Polygon is high intensity points = 0		-2
Total for H 2		
Add the points in the boxes above		1

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

H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose <i>only the highest score that applies to the wetland being rated</i>.		
Site meets ANY of the following criteria: points = 2 ☐ 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 lists) ☐ 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 100m points = 1 Site does not meet any of the criteria above points = 0		2

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

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

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

<http://wdfw.wa.gov/conservation/phs/list/>

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

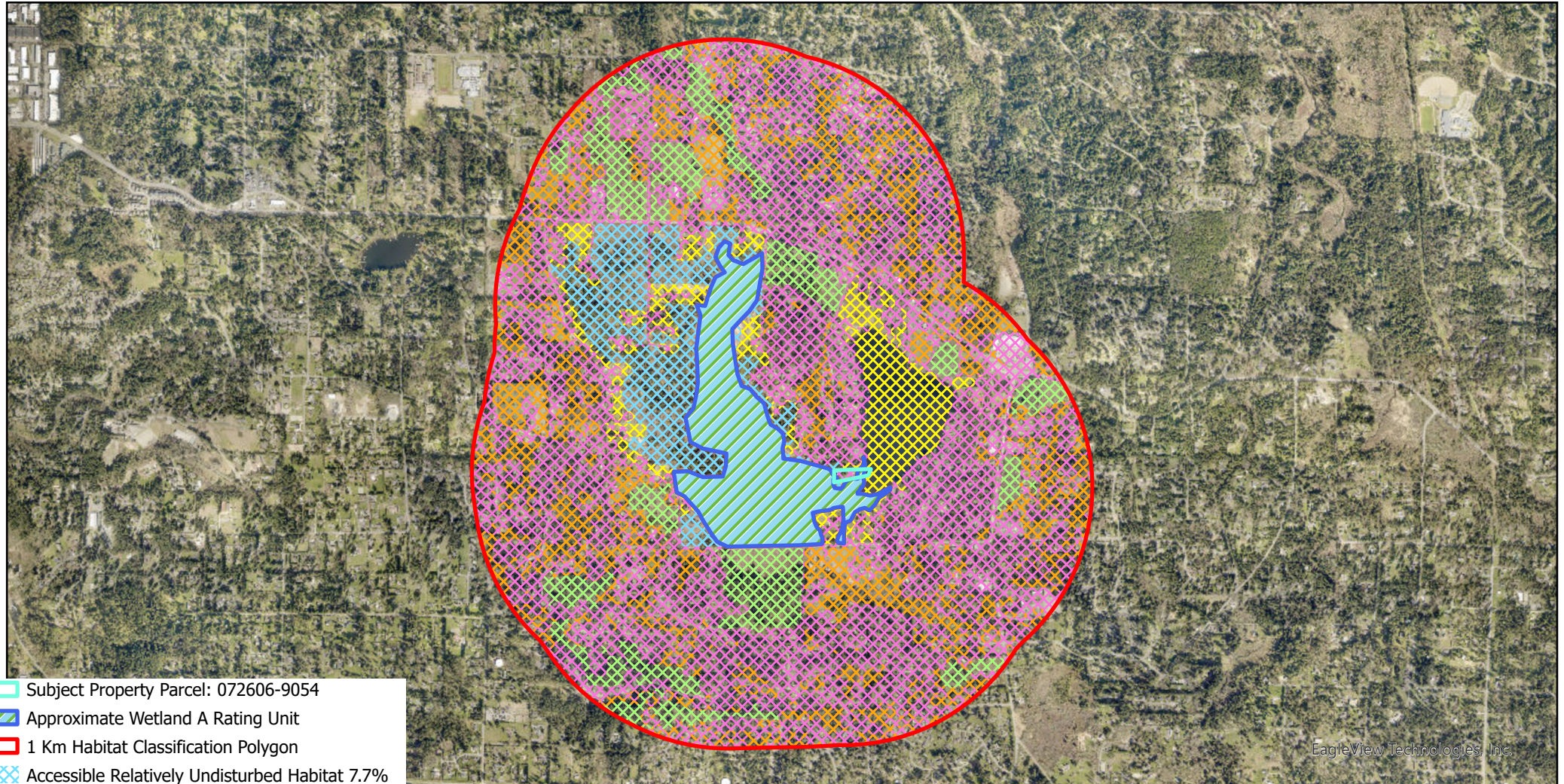
- ☐ **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- ☐ **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- ☐ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- ☐ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- ☐ **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).
- ☐ **Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- ☐ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).
- ☐ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- ☐ **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).
- ☐ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- ☐ **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- ☐ **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- ☒ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

King County
Parcel 072606-9054

AOA - 6955

Figure A



- Subject Property Parcel: 072606-9054
- Approximate Wetland A Rating Unit
- 1 Km Habitat Classification Polygon
- Accessible Relatively Undisturbed Habitat 7.7%
- Accessible Low_Moderate Intensity Habitat 6.8%
- Relatively Undisturbed Habitat 10.3%
- Low_Moderate Intensity Habitat 21.7%
- High Intensity Habitat 53.5%

EagleView Technologies, Inc.

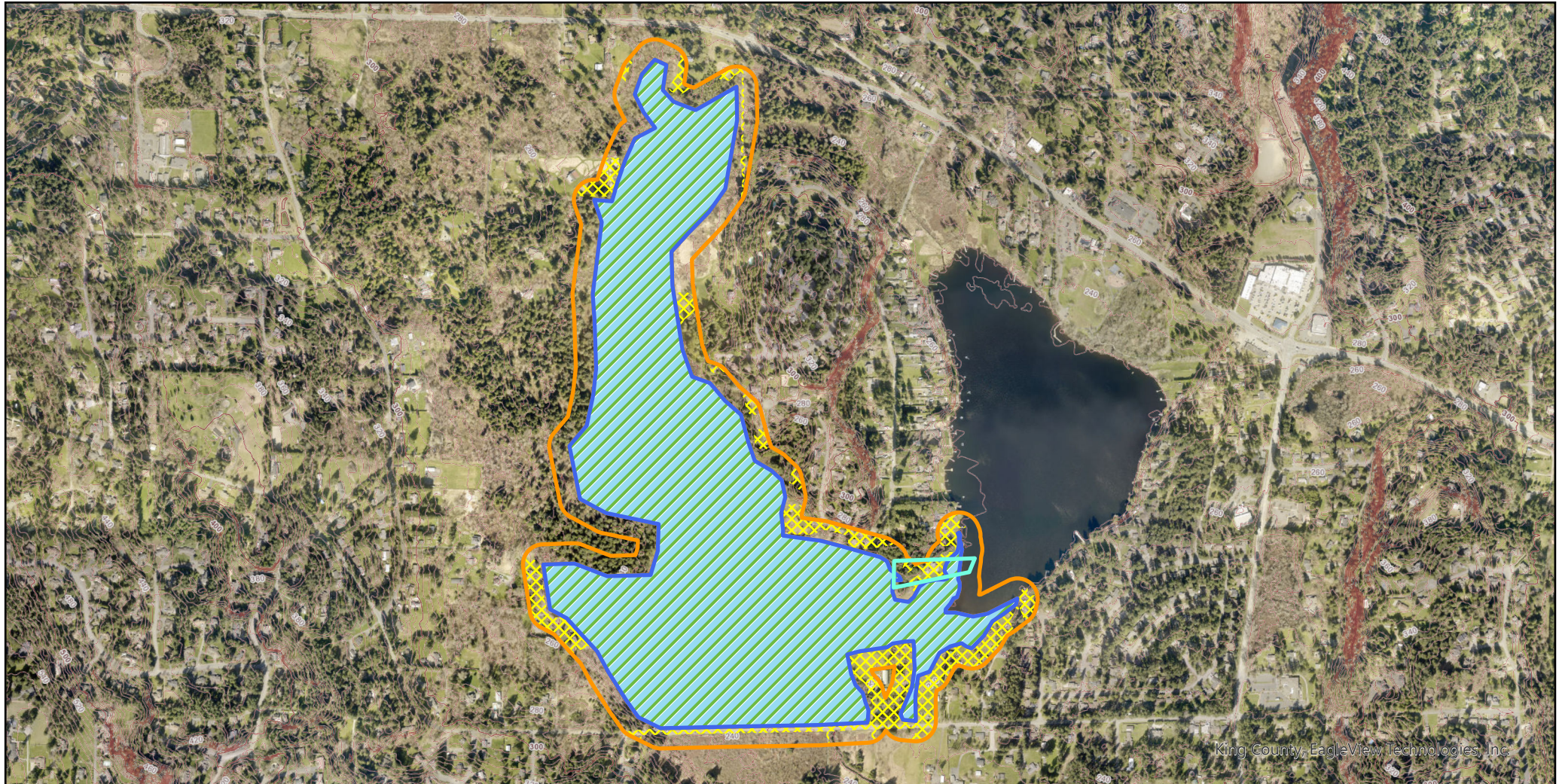
0 1,000 2,000 4,000 6,000 8,000 US Feet



King County
Parcel 072606-9054

AOA - 6955

Figure B

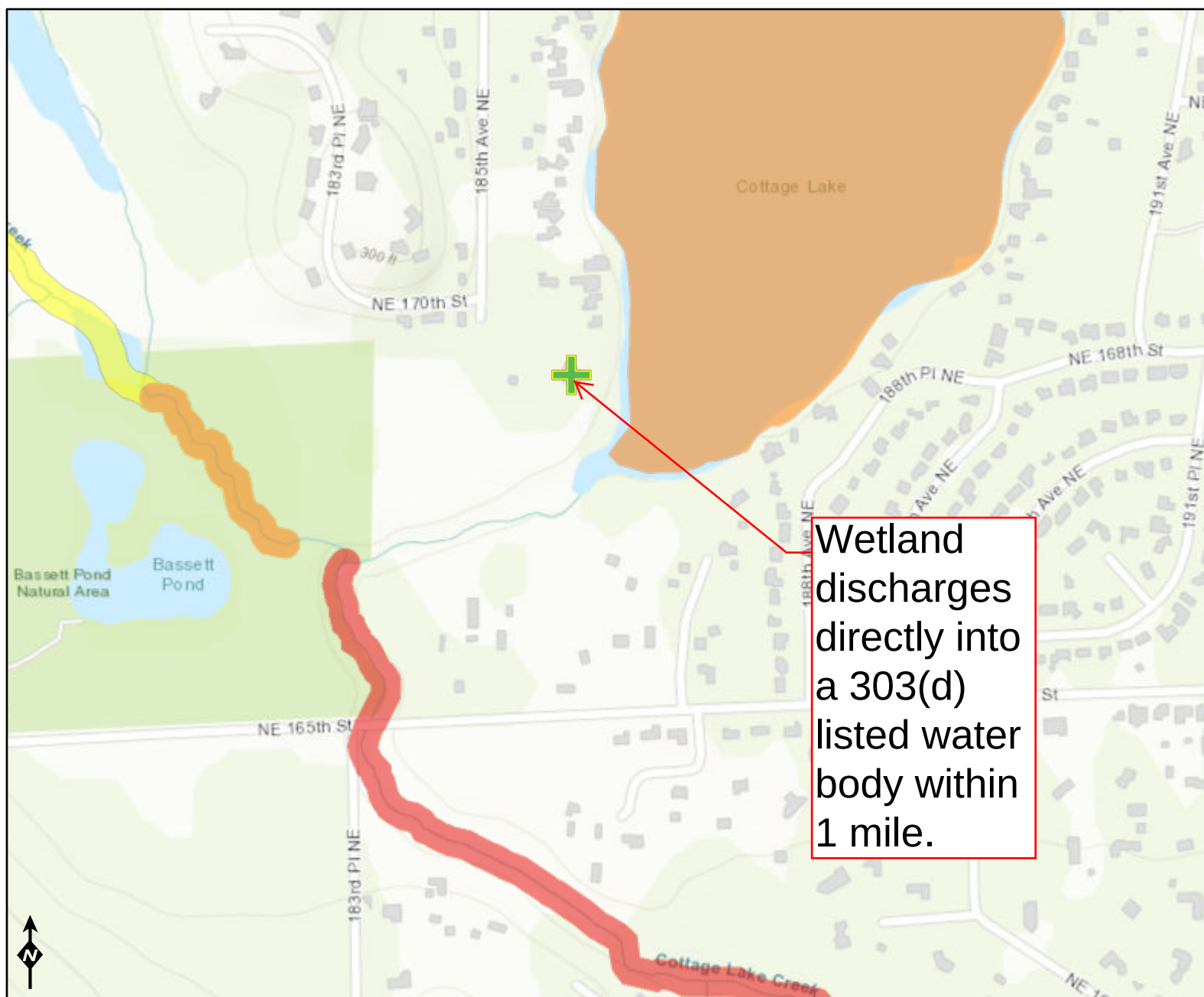


-  Subject Property Parcel: 072606-9054
-  Approximate Wetland A Rating Unit
-  150' Pollution Assessment Polygon
-  Pollution Generating Surfaces 33.7%

0 500 1,000 2,000 3,000 4,000
US Feet



Figure C

**Assessed Water/Sediment****Water**

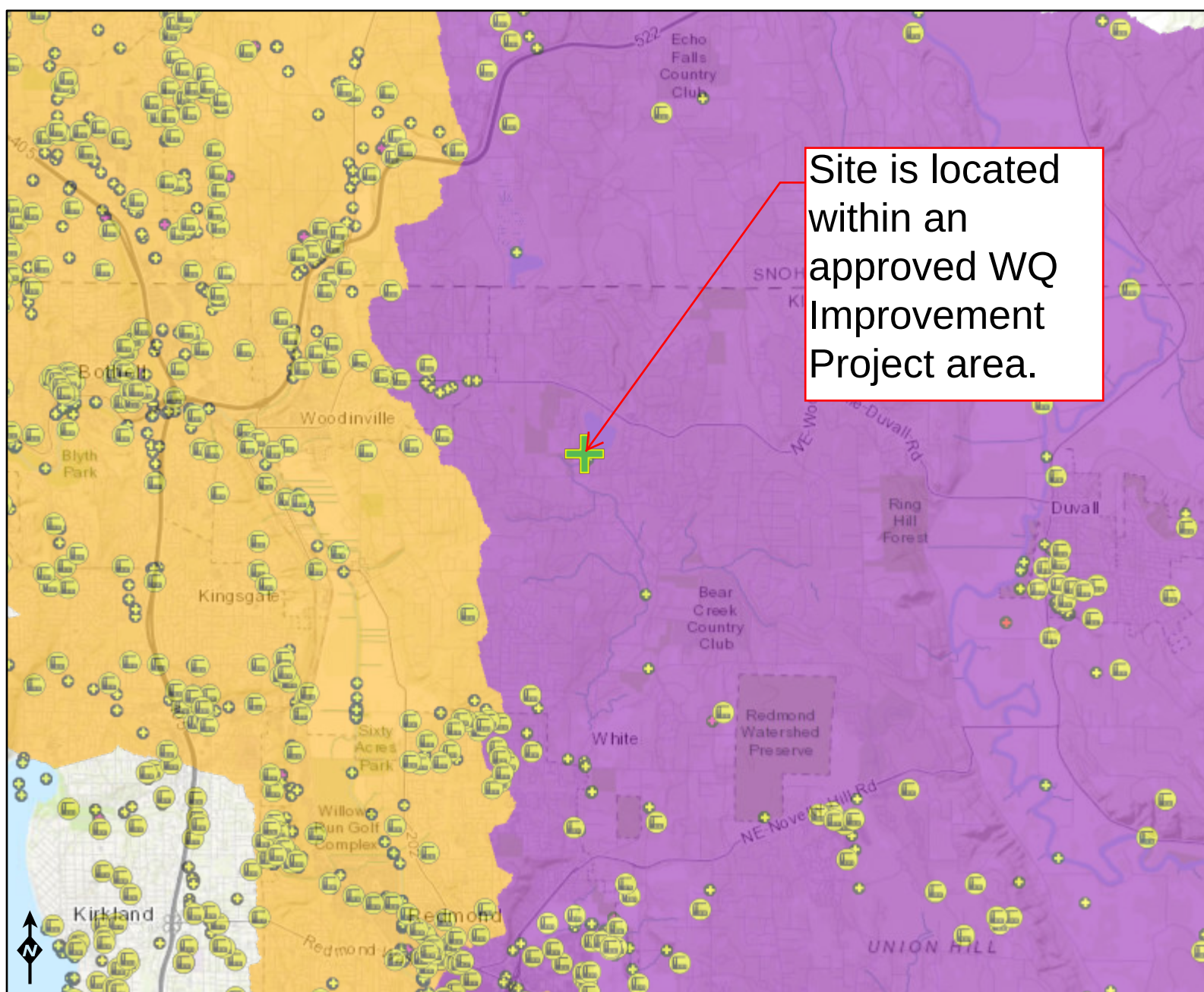
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment

- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Wetland
discharges
directly into
a 303(d)
listed water
body within
1 mile.

Figure D

**WQ Permitted Outfalls**

- Outfall - Groundwater
- Outfall - Surface Water
- Outfall - Other
- Associated Facility

WQ Improvement Projects

- Approved
- In Development