EXHIBIT 5.c: SWC Critical Area Report Addendum (11/19/25)

Sewall Wetland Consulting, Inc.
PO Box 880
Fall City, WA 98024
Phone: 253-859-0515

November 19, 2025

Nikole Coleman
City of Poulsbo Planning and Economic Development
200 NE Moe Street
Poulsbo, Washington 98370

RE: Critical Area Report Addendum – Pinnacle at Liberty Bay
Poulsbo Subdivision #P-06-20-25-03
SWC Job #24-158

Dear Nicole,

This report describes our response to your September 8, 2025 "*Request for Revisions*" regarding the proposed Pinnacle at Liberty Bay development. This revision specifically addresses the comments in the peer review letter dated August 29, 2025 from Farallon Consulting/Grette Associates as follows;

• Per PMC 16.20.220, all wetlands within 300 feet of a proposed project shall be identified. Grette identified one offsite feature that appears to have been evaluated and flagged by SWC; however, the Plan does not provide a discussion describing this feature and how or if this feature meets the definition of wetland per PMC 16.20155. While any buffer associated with this potential wetland area would not extend onto the project site, additional information should be provided to explain why this area was flagged and not discussed in the Plan for compliance with PMC 16.20.220.

Response: It is unclear what feature the peer reviewer is discussing, as no off-site features were flagged by our company. However, the assumption is they are talking about a small depression along a private driveway that goes north off of Sunrise Roidge Road and east of the site. There was a blocked drain in this area and there were some random flags around it. It appears the owners of that property have cleared the blocked drain so it does not appear to be a wetland or any other critical area.

• Per PMC 16.20.210, all wetlands shall be rated according to Ecology's Washington State Wetland Rating System for Western WA – 2014 Update: Version 2 (Hruby and Yahnke 2023). The Plan did not include complete figure sets as required per Ecology's rating system. Complete wetland rating figure sets, as defined in Ecology's rating system, should be provided for compliance with PMC 16.20.210.

Response: A complete set of figures for all the wetlands on the site is attached to this addendum as requested. Vegetation density is not included as they cannot be seen on an aerial image and the same goes for hydrologic regime as they are all just saturated.

• Per PMC 16.20.230, a point should be given to question H3 in Wetland C's rating form. Grette's site review included observations of snags and logs within 330 feet of the wetland. Including this additional point changes the overall habitat score from 5 points to 6 points.

Response: We agree with this change and have revised our rating form (see attached).

• Per PMC 16.20.230, Category III wetlands with a moderate habitat score (6-7 points)4 with a proposed high impact land use are subject to a 150-foot buffer. Based on the revised habitat score, the appropriate buffer width for Wetland C is 150 feet. The Plan should be revised accordingly.

Response: The plan has been revised to show the 150' buffer off Wetland C as requested. The revised plan is attached.

• Per PMC 16.20.230, buffer averaging may be allowed if it will improve the protection of the wetland or if it is the only way to allow for reasonable use of the property. The Plan does not provide sufficient detail to support why a reduction to Wetland A's buffer is necessary and prevents reasonable use of the project site to support the proposed alignment of the road and residential park. The Plan should be revised to include additional information to demonstrate there is no feasible alternative to reposition the access road and that reducing the park area would not provide feasible recreational use. Please note that based on one of the figures provided in the plan (Attachment 1), it appears that the standard buffer is being applied to all of Wetland A, which appears to show averaging is not necessary.

Response: The proposed averaging of the buffer of Wetland A is shown on the north and west edge of the buffer. In this area the buffer is being reduced a total of 1,859sf with a minimum width of 37.5' which is 75% of the standard buffer as allowed by Code. The existing topography forces the city-required road connection (Road C) towards Wetland A. There is simply too much grade to make up between Road C and the Road A upslope. It's proposed location is intended to minimize grading adjacent to the wetland buffer. The road on the north requires a slope which will have this minor intrusion into the buffer. The road cannot be moved further north as it impacts the curve of the road which will impede traffic flow with a sharp curve. The area on the west is to make the small park area flat without a slope into the buffer. A total of 2,207sf of buffer will be added which is a net increase of 348sf of buffer area.

• PMC 16.20.230 requires that the increased wetland buffer be in areas that provide higher function compared to the proposed area to be reduced. The Plan describes that the reduced buffer area associated with Wetland A is primarily overgrown with blackberry but only states that the increased buffer area is more heavily vegetated. The Plan needs to be revised to further describe conditions for compliance with this requirement.

Response: As previously noted, the areas of the reduction include old logging road areas with heavy blackberry growth. The area to be added, particularly on the east is an area of native trees and shrubs which higher habitat value than the reduced, invasive blackberry areas. We believe the added areas are of higher functional value for habitat in particular, due to the increased native vegetation in these areas.

• Per PMC 16.20.230, averaging may be allowed if it is the only way to allow for reasonable use of the property. According to the Plan, Wetland B's buffer needs to be reduced in three locations and states that it is necessary because of existing slopes and to better fit several lots. No further explanation to describe site constraints or rationale as to why there are no other design alternatives. The Plan needs to be revised accordingly.

Response: The proposed averaging of the buffer of Wetland B is necessary to make efficient use of the site given the topographic constraints and grading necessitated by the City's maximum road grade of 12%. If we were permitted to create steeper roads, we could follow existing grades better and reduce the grading. But at 12%, we're chasing grades in a lot of places even with sizable walls (up to 20' in some locations). The reduced areas of buffer on the north are due to the fact that in order to utilize that narrow portion of the site and keep an access road to the lots, a minor amount of averaging will be required. The other two areas will require some grading in these areas due to the slope so averaging these will be required to allow lots on this area of the site.

• Per PMC 16.20.230, the increased buffer shall be in area that provides higher function compared to the proposed area to be reduced. The Plan describes that the reduced buffer area associated with Wetland B is primarily shrubs and that the increased area is primarily mature native vegetation but also states that the reduced area and the increased area provide similar function. Based on this summary, it is unclear that the increased buffer is in a high quality area compared to where the reduction is proposed. The Plan needs to be revised to further describe conditions for compliance with this requirement.

Response: In general, the reduced buffer areas are similar in vegetative character as the added areas. These buffer areas are generally above the slope and as such are generally just added areas of habitat along the buffer as the slope is a barrier to some functions. The proposed averaging reduces the buffer by 11,509sf in 4 areas and adds 11,857sf of

buffer in 3 areas. This is a net increase of 348sf of buffer/habitat area that increases the habitat function of this area.

• Per PMC 16.20.235, pedestrian trails and trail-related facilities may be allowed in wetland buffers, pending approval, when it is sufficiently demonstrated that those features were designed in compliance with the project specific development standards defined in PMC 16.20.235. The Plan does not include any information to demonstrate compliance with PMC 16.20.235. As proposed, the trail alignment within the wetland buffers is not compliant with PMC16.20.230. Per PMC 16.20.230(F), trails shall be positioned in the outer 25 percent of a wetland buffer. The current alignment shows portions of the trail well within the inner 75 percent of the wetland buffer. The Plan should be revised accordingly.

Response: The trail has been removed from the buffer so there are no impacts from a trail at this time.

• Per PMC 16.20.315, Type F streams are subject to a 150-foot stream buffer and a 25-foot building setback. The Plan needs to be revised to reflect a 150-foot buffer for Stream C.

Response: SWC disagrees that Stream C should be classified as a Type F (fish-bearing) water. It is classed by Washington State Department of Natural Resources (DNR) mapping as a Type N stream, which mapping governs stream types under City of Poulsbo critical areas regulations, as discussed below.

City of Poulsbo critical areas regulations define stream types to mean the water typing system established by Washington State DNR in WAC 222-16-030 and 222-16-031. PMC 16.20.155. The City code incorporates these DNR WACs in their entirety, which therefore includes the DNR process, criteria, and definitions for stream typing. Under the DNR water-typing regulations, the DNR maps prepared under WAC 222-16-030 are the controlling reference to establish stream type. The DNR stream-typing protocol under -030 is specific and involves a cooperative approach between DNR, Washington State Fish & Wildlife, and Ecology, and in consultation with affected Indian tribes, to classify streams. Once the maps are established, except for scheduled updates, “on-the ground observations of fish or habitat characteristics will generally not be used to adjust mapped water types.” WAC 222-16-030. Accordingly, DNR water-type mapping is the appropriate source for designating a stream type under city regulations. The peer reviewer states that under PMC 16.20.310, Stream C meets the physical criteria to be defined as a Type F stream. However, the cited section simply establishes that Type F, Np and Ns waters under the criteria of WAC 222-16-030 are regulated as Fish and Wildlife Habitat Conservation Areas (FWHCA) under the City’s

CAO, which is not contested. As a type N water, Stream C is a regulated FWHCA. As to which type of stream Barrantes Creek is, City code provides specific stream typing direction at PMC 16.20.155, addressed above. WAC 222-16-300 provides the criteria that are used for the mapping, and once established, the maps control. DNR's Fpars water-typing map establishes Stream C as Type N. Under the City-adopted DNR process and criteria for stream types, it is not appropriate for the applicant or city peer reviewer to independently adjust the mapped stream type. SWC appropriately relied upon the DNR mapping to identify Stream C as Type N. (Note, however, if a stream has not been typed under WAC 222-16-030, then the interim stream typing provisions of WAC 222-16-031 would continue to be used for site-specific stream typing, as is the case for Stream D, addressed in section 2 below. See WAC 222-16-030.)

SWC prepared a Habitat Assessment Report and Management Plan (the "Plan"), submitted by the applicant. SWC's Plan identifies that the DNR Fpars mapping shows the stream crossing the western side of the site (Stream C, aka Barrantes Creek) to be a Type N water. Under the regulatory framework, the applicant may rely on the current DNR Fpars map for the area, which establishes Barrantes Creek as Type N, as the controlling stream-type designation under City regulations. Our report also correctly identifies that the City of Poulsbo Wetlands and Fish and Wildlife Habitat Report, prepared by Farallon Consulting and Grette Associates (Rev. June 2024) (hereafter "City's BAS Report") also specifically identifies Barrantes Creek, which passes along the west side of the site, as a Type N stream. The peer reviewer argues that the Plan inappropriately references the City's BAS Report to dispute the physical characteristics of Stream C. The Plan references the BAS Report for its consistency with the Fpars map from DNR. While the Plan notes some stream characteristics that pertain to stream typing, we did not provide a complete stream typing analysis, because under the City's regulations, the DNR mapping controls. In a complete stream-typing analysis, the Plan would include, for instance, site-specific surveys that show that the stream bed gradient of Barrantes Creek exceeds 20% on a portion of the project site, in addition to numerous fish blockages that exist on site and between the southern property boundary and Liberty Bay. Please see that attached Barrantes Creek profile sheet as a part of this addendum. The steep stream gradient also supports the Stream type N classification. SWC stands by the Plan assessment that Stream C best meets the criteria of Ns1 under City code.

We have attached the WADNR and WDFW maps that specify this is a Type N stream to this addendum.

Per PMC 16.20.315, Type Ns1 streams include those streams that have a direct connection to a Type S, F, or Np. The Plan inaccurately classifies Streams B and D as Type Ns2 features. Stream Bs and D meet the criteria to be defined as Type Ns1 features. Per PMC 16.20.315, Type Ns1 streams are subject to a 75-foot buffer and a 25-foot building setback. The Plan needs to be revised accordingly.

Response: SWC disagrees that Stream D should be classified as a Type Ns1 stream. Our Plan identifies Stream D as a Type Ns2 stream, that is, a non-fish bearing, seasonal stream without a direct connection to a type S, F, or Np water. The City's peer reviewer states that Stream D should be classified as a Ns1 stream, because "[p[er PMC 16.20.315, Type Ns1 streams include those streams that have a direct connection to a Type S, F, or Np." The peer reviewer's determination was based on site observations and the Washington Department of Fish and Wildlife's WDFW) fish passage data, which it claims establishes that Stream D flows directly into Liberty Bay, a Type S water. The DNR WACs referenced in the City's stream typing definition provide that Type Ns waters are "all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np waters…Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters." Based upon the language of PMC, a review of Stream D physical characteristics, and WDFW reports, SWC disagrees that Stream D should be reclassified as Type Ns1.

Stream D exits the project site and then travels across other properties and into a culvert that passes under Highway 305. Thereafter Stream D descends through yards via narrow ditches and/or french drains along the west property line of a large house under construction and then drops into the roadside ditch on the uphill side of Lemolo. That ditch then appears to drain to the west about 60' in the roadside ditch to a culvert into a manhole, which then dumps across the street in a 24" culvert and drops about 3-4' into the Sound. So while water from Stream D does ultimately reach Liberty Bay, that occurs through a combination of roadside ditches and manmade features, and not directly to the sound in its own defined channel. The stream channel is not demonstrated to meet the "direct connection" or "above-ground channel" criteria to be a Type Ns1 creek. SWC does not agree that the physical characteristics of Stream D discharge meet the applicable criteria to be classified as Ns1.

• Per PMC 16.20.320, a project must demonstrate compliance with the minimum development standards defined in PMC 16.20.320 for stream crossings. The Plan does not provide any information to demonstrate compliance with the stream crossing requirements defined in PMC 16.20.320 and for compliance with the habitat management plan requirements defined in PMC 16.20.755. The Plan should be revised accordingly.

Response: The following are the criteria for stream crossings per PMC16.20.320;

A. Stream Crossings. Any private or public road expansion or construction which is allowed and must cross streams classified within this chapter shall comply with the following minimum development standards:

1. Bridges or bottomless culverts shall be required for all streams which support fish life, unless a habitat management plan is submitted which demonstrates that other alternatives would not result in significant impacts to the fish and wildlife habitat conservation area and as determined appropriate through the Hydraulic Project Approval process administered by the Washington State Department of Fish and Wildlife;

Response: The road crossing is being required by the city for the applicant to have an access to the site from the west. This is a City requirement. Therefore, there is no other option as there is no way to access the site without crossing the stream. The culvert design for the crossing will be designed to meet WDFW HPA stream crossing requirements. The exact design and sizing of the culvert is currently being worked on and will be coordinated with WDFW to meet their criteria.

2. Crossings shall not occur in salmonid spawning areas unless no other feasible crossing site exists. For new development proposals, if existing crossings are determined to adversely impact salmon spawning or passage areas, new or upgraded crossings shall be located as determined necessary through coordination with the Washington Department of Fish and Wildlife;

Response: The stream is a Type N stream with no fish use or areas of spawning gravel on the site or in the proposed crossing area.

3. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;

Response: Not applicable, no work shall be placed in a floodway or between the OHW of the creek in the proposed crossing.

4. Crossings shall not diminish flood-carrying capacity;

Response: The crossing will not diminish flood carrying capacity of the stream and will be designed to allow sediment and debris to pass through it.

5. Crossings shall serve multiple properties whenever possible;

Response: The crossing will provide access to the proposed development as well as home and properties to the east of the site which will be able to pass through the sites road system.

6. Publicly owned or maintained road or street crossing shall provide for other purposes, such as utility crossing, pedestrian or bicycle easements, viewing points, whenever possible;

Response: Utilities will cross through the roads as well as a sidewalk for pedestrians.

7. Where there is no reasonable alternative to providing a conventional culvert, the culvert shall be the minimum length necessary to accommodate the permitted activity. If located on a stream containing fish and wildlife habitat per WAC 222-16-030, the culvert shall be designed in accordance with the Washington Department of Fish and Wildlife's 2013 Water Crossing Guidelines (or as amended).

Response: The culvert will be designed to be the minimum length needed for the crossing and will incorporate retaining walls etc to minimize the stream crossing width. The design will meet all WDFW requirements.

The following are the criteria for stream crossings per PMC16.20.755;

A. When intrusions, reductions, alterations or impacts to a fish and wildlife habitat conservation area is proposed, or when otherwise required, a habitat management plan shall be prepared. The habitat management plan shall identify how the development impacts from the proposed project will be mitigated. The Washington Department of Fish and Wildlife Priority Habitat and Species Management Recommendations, dated May 1991, or bald eagle protection rules outlined in WAC 220-610-100, as now or hereafter amended, may serve as guidance for this report. The recommendations in Washington Department of Fish and Wildlife Priority Habitat and Species Management Recommendations found at http://wdfw.wa.gov/conservation/phs/ mgmt_recommendations/ may serve as guidance for habitat management plans created to regulate the design, construction, and operation of projects that affect fish and wildlife conservation areas.

B. The habitat management plan shall contain a map prepared at an easily readable scale, showing:

1. The location of the proposed development site;

Response: The final design of the stream crossing of Stream C (Barrantes Creek) has not been finalized. Once that design is finalized a detailed impact and mitigation plan will be submitted to the City for review and approval. The current site plan does depict the location of the crossing.

2. The relationship of the site to surrounding topography, water features, and cultural features;

Response: The current site plan depicts the location of the crossing in relation to the surrounding topography and other features of the site

3. Proposed building locations and arrangements; and

Response: The current site plan has no buildings near the crossing, there is only the proposed road. All other features are located outside the stream buffer.

4. A legend which includes a complete legal description, acreage of the parcel, scale, north arrow, and date of map revision.

Response: The current site plan features these items.

C. The habitat management plan shall also contain a report which describes:

1. The nature and intensity of the proposed development;

2. An analysis of the effect of the proposed development, activity or land use change upon the wildlife species and habitat identified for protection, including impacts on buffer and building setbacks.

3. An analysis of any special management recommendations that will be implemented to ensure protection of the species and/or habitat.

4. A plan which identifies how the applicant proposes to mitigate any adverse impacts to wildlife habitats created by the proposed development. Mitigation measures are required where buffer reduction or intrusions into building setbacks are proposed, and shall include buffer enhancement.

Response: The July 4, 2025 Pinnacle at Liberty Bay Critical Area Report & Habitat Management Plan addresses these criteria.

5. Assessment and evaluation of the effectiveness of the mitigation measures proposed.

Response: The July 4, 2025 Pinnacle at Liberty Bay Critical Area Report & Habitat Management Plan addresses these criteria. The proposed mitigation for the stream crossing will be an additional 7,246sf of buffer added east of the stream as well as removal of the existing old culvert and abandoned road crossing located north of the proposed crossing.

6. Assessment and evaluation of ongoing management practices which will protect fish and wildlife habitat conservation areas after development of the project site, including monitoring and maintenance programs, and operation constraints.

Response: The July 4, 2025 Pinnacle at Liberty Bay Critical Area Report & Habitat Management Plan addresses these criteria. The details of the maintenance and monitoring will be provided in the detailed mitigation plan once the final road crossing design is finalized.

7. Assessment of project impact or effect on water quality upon SF Dogfish Creek or any regulated stream, and any proposed methods or practices to avoid degradation of water quality.

Response: Not applicable.

• PMC 16.20.320 provides development standards to allow the placement of utilities within a FWHCA or its buffer if the project follows the standards defined in said section of code. The Plan does not provide sufficient details and analyses to demonstrate compliance with the project specific development standards defined in PMC 16.20.320.

Response: The details of the crossing design are not finalized. When this is complete, it will meet the criteria of PMC 16.20.320 as detailed previously in the addendum.

• The Plan does not include any information to demonstrate compliance with the project specific development standards defined in PMC16.20.320 for trails and trail-related facilities within stream buffers. The Plan needs to be revised accordingly.

Response: Not applicable, the trail has been removed from the stream buffers.

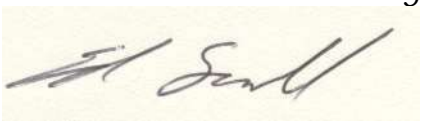
A habitat management plan shall meet the minimum reporting requirements defined in PMC 16.20.755. While the Plan does provide sufficient detail for some of the general reporting requirements, the Plan does not provide sufficient information to address mitigation and monitoring or an analysis regarding potential water quality impacts associated with the proposed stormwater discharge and how those impacts will be mitigated. The information that is currently provided to address these examples largely consists of stating

native vegetation will be planted in temporarily disturbed areas and that any proposed mitigation monitoring will be provided in more detail at a later time. The information provided that describes the stormwater discharge to the streams does not provide sufficient detail for this review to determine if adequate mitigation and best management practices are proposed to ensure no net loss of existing ecological functions of those FWHCAs for compliance with PMC 16.20.305.

Response: When the current site plan is approved the details of the mitigation areas will be provided in a detailed mitigation plan for the City to review and approve.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com .

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212

Attached: Current Site/Buffer Averaging Plan
Barrantes Creek Profile Sheet
Revised Wetland C rating Form
All figures for Rating Forms
DNR Fpars Map for site (screenshot)
Fish & Wildlife HCA Map/DNR Hydrology Water Type Map (City of Poulsbo)

A PORTION OF THE SE 1/4 OF SECTION 23, TWP. 26 N., RGE. 1 E.,WM



BUFFER GIVE/TAKE ANALYSIS			
	WETLAND A	WETLAND B	STREAM C
TOTAL GIVE	2,119 SF	11,571 SF	7,246 SF
TOTAL TAKE	1,941 SF	11,509 SF	7,196 SF
NET GIVE	178 SF	62 SF	50 SF

REVISIONS

NO.	DESCRIPTION/DATE	BY

BRANDON MICHAEL LOUCKS
STATE OF WASHINGTON
50885
REGISTERED PROFESSIONAL ENGINEER
12/01/2025

ESM CONSULTING ENGINEERS LLC
33400 8th Ave S, Suite 205
Federal Way, WA 98003
www.esmcivil.com
Civil Engineering | Land Surveying
Public Works | Project Management
FEDERAL WAY (253) 838-6113
LYNNWOOD (425) 297-9900
Land Planning
Landscape Architecture

MONTEBANC MANAGEMENT, LLC

PINNACLE AT LIBERTY BAY SUBDIVISION

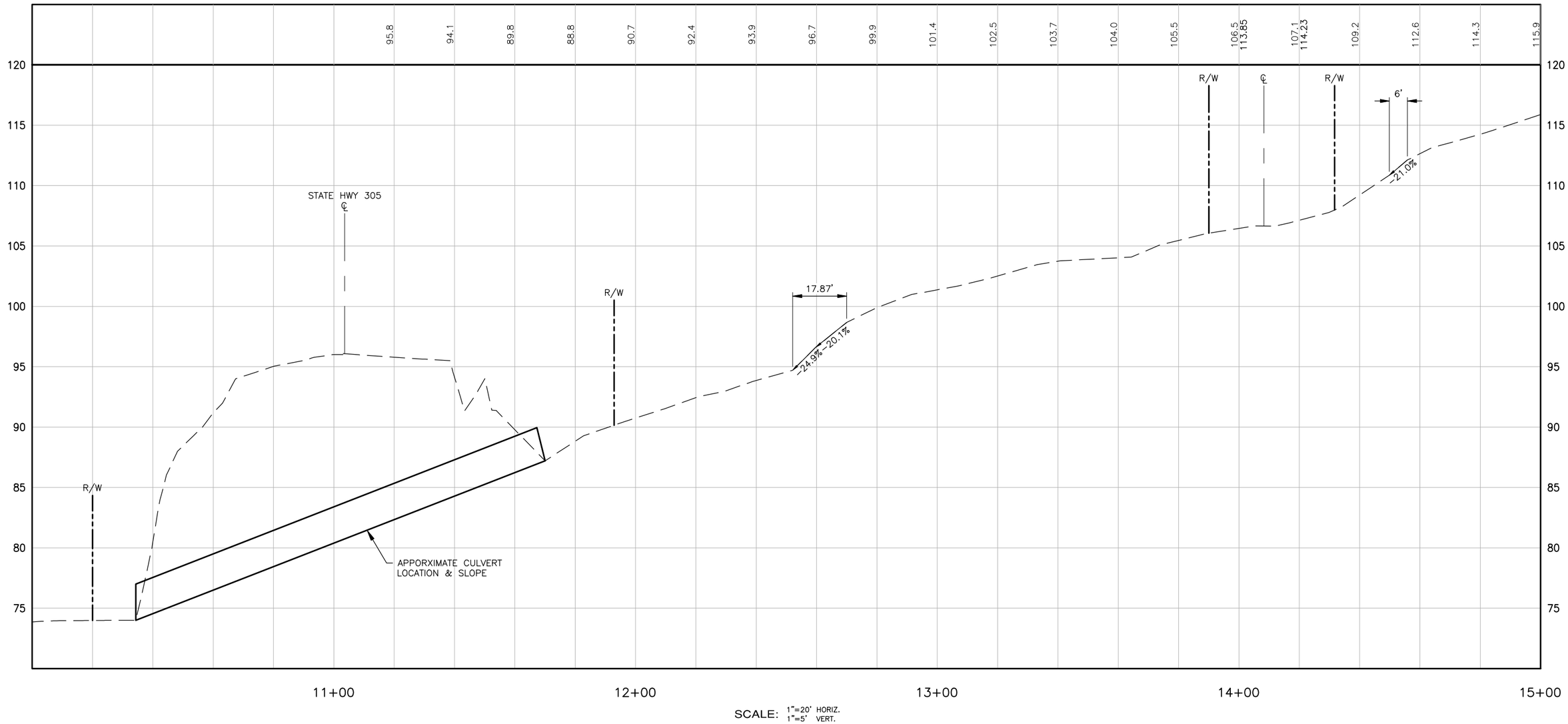
BUFFER MITIGATION PLAN

CITY OF POULSBO WASHINGTON

JOB NO.: 2090-004-022
DWG. NAME: PP-06
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 11/26/2025
DATE OF PRINT:

PP-06

File: \\esmfl\engr\ESM-JOBS\2090\004\022\P-plot\Plots\PP-06.dwg
Plotted: 11/26/2025 4:50 PM Plotted By: Connie Garrett



SCALE: 1"=20' HORIZ.
1"=5' VERT.

Wetland name or number C

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Matthews - Wet C Date of site visit: 7-6-25

Rated by EJ Sand Trained by Ecology? ✓ Yes ___ No Date of training 2017

HGM Class used for rating Riverine Wetland has multiple HGM classes? ✓ Y ___ N

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

Source of base aerial photo/map _____

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	
	Circle the appropriate ratings			
Site Potential	H (M) L	H (M) L	H (M) L	
Landscape Potential	H (M) L	(H) M L	H M (L)	
Value	H (M) L	H M (L)	(H) M L	TOTAL
Score Based on Ratings	6	6	6	18

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	

Wetland name or number C

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 total 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 total 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 total 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 **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** 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 total 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 C

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 sheet flow, 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).

Wetland name or number C

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.

   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 C

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover >3/4 area of wetland	points = 8	
Depressions cover > ½ area of wetland	points = 4	
Depressions present but cover ≤ ½ area of wetland	points = 2	
No depressions present	points = 0	4
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		
Trees or shrubs > 2/3 area of the wetland	points = 8	
Trees or shrubs > 1/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in. high) > 2/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in. high) > 1/3 area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous < 1/3 area of the wetland	points = 0	6
Total for R 1 — 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*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	0
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4? Other sources _____	Yes = 1 No = 0	0
Total for R 2 — Add the points in the boxes above		3

Rating of Landscape Potential If score is: **3-6 = H** **1 or 2 = M** **0 = L** *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 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 in development or in effect for the drainage in which the unit is found.)	Yes = 2 No = 0	0
Total for R 3 — Add the points in the boxes above		1

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

Wetland name or number C

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

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

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

R 4.1. Characteristics of the overbank storage the wetland provides: Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks). If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	2
If the ratio is < 1	points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes). Forest or shrub for $>^1/_3$ area OR emergent plants $> ^2/_3$ area	points = 7	
Forest or shrub for $> ^1/_{10}$ area OR emergent plants $> ^1/_3$ area	points = 4	4
Plants do not meet above criteria	points = 0	
Total for R 4	Add the points in the boxes above	6

Rating of Site Potential If score is: **__12-16 = H ___6-11 = M ___0-5 = L** *Record the rating on the first page*

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

R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	1
R 5.2. Does the upgradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the upgradient stream or river controlled by dams?	Yes = 0 No = 1	1
Total for R 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*

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

R 6.1. Distance to the nearest areas downstream that have flooding problems? Choose the description that best fits the site. The sub-basin immediately downgradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther downgradient	points = 1	
No flooding problems anywhere downstream	points = 0	0
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for R 6	Add the points in the boxes above	0

Rating of Value If score is: **__2-4 = H ___1 = M ___0 = L** *Record the rating on the first page*

Wetland name or number C

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 if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

___ Aquatic bed	4 structures or more: points = 4
✓ Emergent	3 structures: points = 2
✓ Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = (1)
___ Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

___ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon

1

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

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

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

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

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

1

H 1.4. Interspersion of habitats

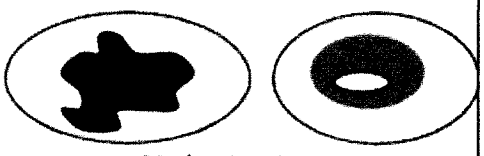
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always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



None = 0 points

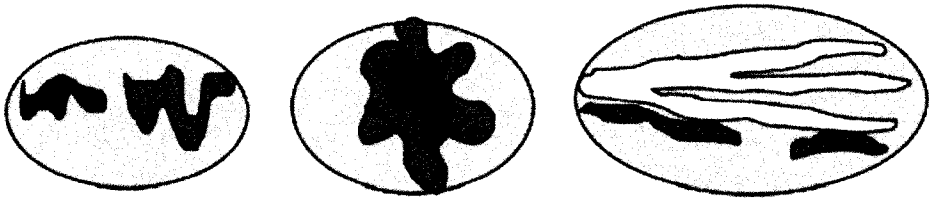


Low = 1 point



Moderate = 2 points

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



1

Wetland name or number C

5

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points. ✓ 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 extend at least 3.3 ft (1 m) over open water or 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 (cut shrubs or trees that have not yet weathered where wood is exposed) ___ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) ✓ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)	2
Total for H 1 — Add the points in the boxes above	7

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

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland. *Calculate:* % relatively undisturbed habitat 13 + [(% moderate and low intensity land uses)/2] C = 13 % 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. Total habitat in 1 km Polygon around the wetland. *Calculate:* % relatively undisturbed habitat 20 + [(% moderate and low intensity land uses)/2] 2 = 22 % Total habitat > 50% of Polygon — points = 3 Total habitat 10-50% and in 1-3 patches — points = 2 Total habitat 10-50% and > 3 patches — points = 1 Total habitat < 10% of 1 km Polygon — points = 0	1
H 2.3. Land use intensity in 1 km Polygon: > 50% of 1 km Polygon is high intensity land use — points = (2) ≤ 50% of 1 km Polygon is high intensity — points = 0	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** ✓ **< 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 only the highest score that applies to the wetland being rated.* ✓ 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 data — 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	2

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

Wetland name or number C

WDFW Priority Habitats

See complete descriptions of Priority Habitats listed by WDFW, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008 (current year, as revised). Priority Habitat and Species List.[133] This list was updated for consistency with guidance from WDFW.

This question is independent of the land use between the wetland unit and the Priority Habitat. All vegetated wetlands are by definition a Priority Habitat but are not included in this list because they are addressed by this rating system.

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

— **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. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.

— **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.

— **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **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. Do not select if Fresh Deepwater habitat is also present.

— **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.

— **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) diameter at breast height (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.

[133] http://wdfw.wa.gov/publications/00165/wdfw00165.pdf

Wetland name or number C

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, WDFW's Management Recommendations for Oregon White Oak[134] provides more detail for determining if they are Priority Habitats

— **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **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.

— **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.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

[134] https://wdfw.wa.gov/publications/00030/wdfw00030.pdf

Wetland name or number C

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

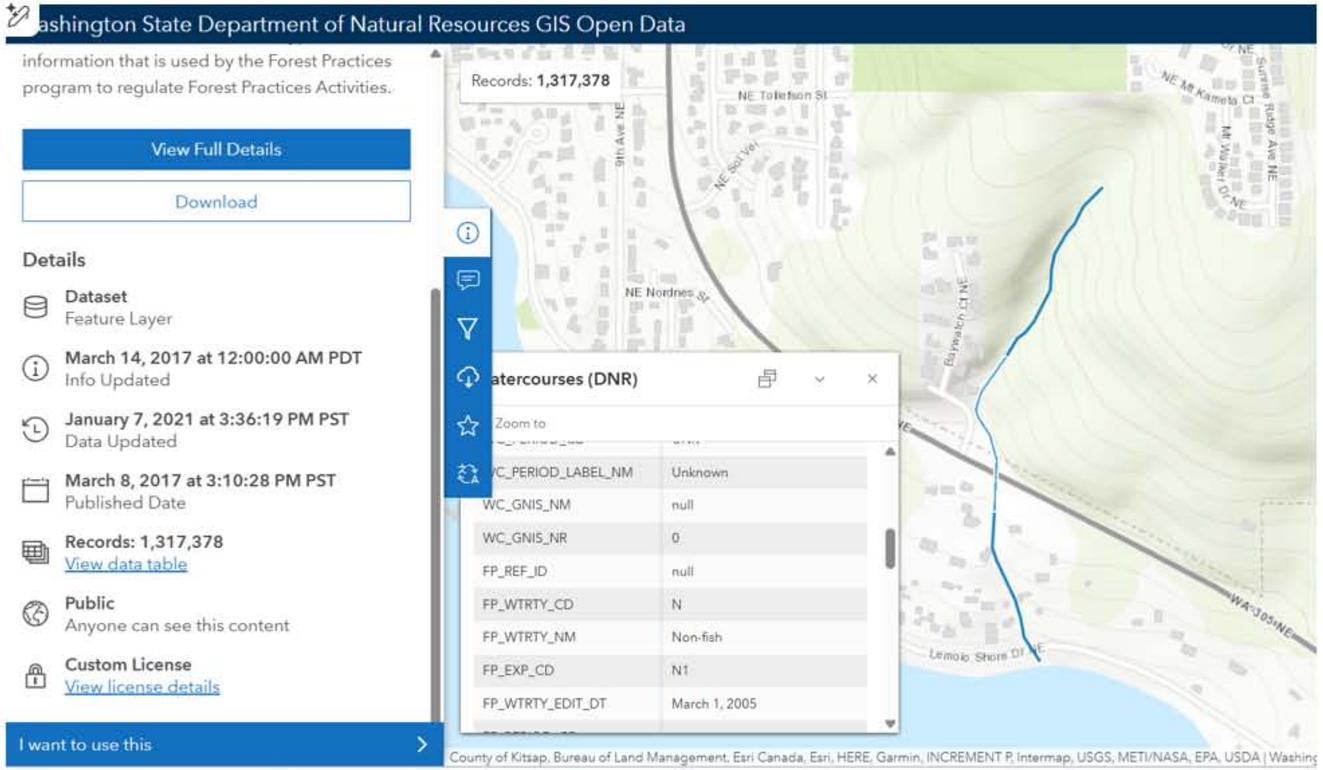
Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes – Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. 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 = **Category I** No – Go to **SC 1.2**	**Cat. I**
SC 1.2. 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 *Spartina*, see chapter 4.8 in the manual. — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons on the WNHP Data Explorer?[135] Yes = **Category I** No – Go to **SC 2.2** SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements. Yes – Submit data to WA Natural Heritage Program for determination,[136] Go to **SC 2.3** No = **Not a WHCV** SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES, you will still need to rate the wetland based on its functions.*** SC 3.1. 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 **SC 3.3** No – Go to **SC 3.2** SC 3.2. 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 **SC 3.5** No = **Not a bog** SC 3.3. 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 = **Category I bog** No – Go to **SC 3.4** **NOTE:** 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. SC 3.4. Is an area with peats or mucks forested (> 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 = **Category I bog** No = **Not a bog**	**Cat. I**

[135] https://www.dnr.wa.gov/NHPdata

[136] https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf

Wetland name or number C

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as Priority Habitats? ***If you answer YES, you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — 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 — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* — The lagoon retains some ~~of its surface water at low tide~~ during spring tides Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet ~~all of the following three conditions?~~ — 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 in H 1.5 in the manual). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^1/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer YES, you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW. Yes – Go to **SC 6.1** No = **Not an interdunal wetland for rating** 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)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** 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? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	NA


ashington State Department of Natural Resources GIS Open Data
information that is used by the Forest Practices program to regulate Forest Practices Activities.
View Full Details
Download
Details
Dataset
Feature Layer
March 14, 2017 at 12:00:00 AM PDT
Info Updated
January 7, 2021 at 3:36:19 PM PST
Data Updated
March 8, 2017 at 3:10:28 PM PST
Published Date
Records: 1,317,378
View data table
Public
Anyone can see this content
Custom License
View license details
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Records: 1,317,378
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Zoom to
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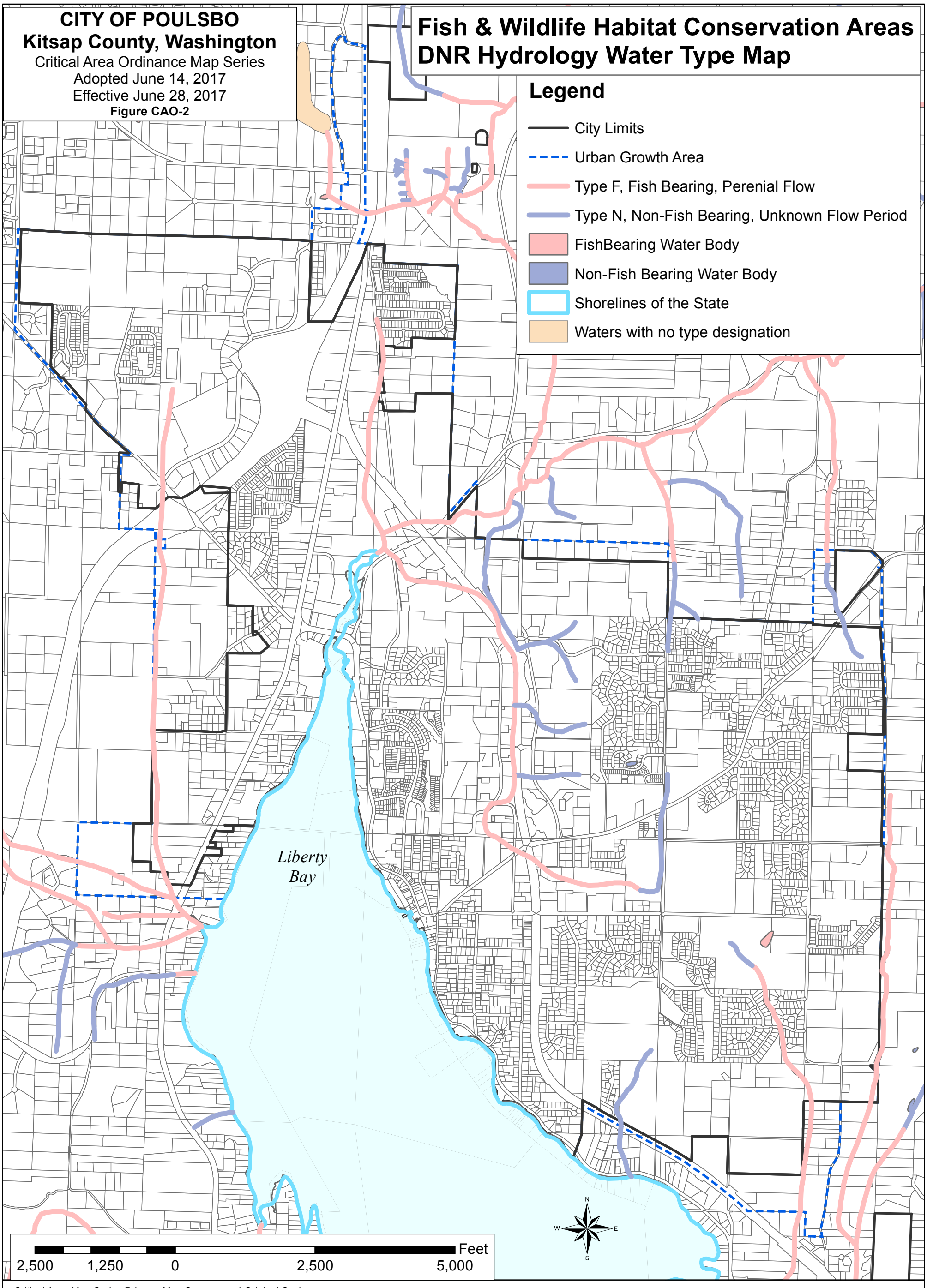
NE Tolmie St
NE Nordnes St
9th Ave NE
Lemolo Shore Dr NE
WA-305 NE
County of Kitsap, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA | Washing

CITY OF POULSBO
Kitsap County, Washington
Critical Area Ordinance Map Series
Adopted June 14, 2017
Effective June 28, 2017
Figure CAO-2

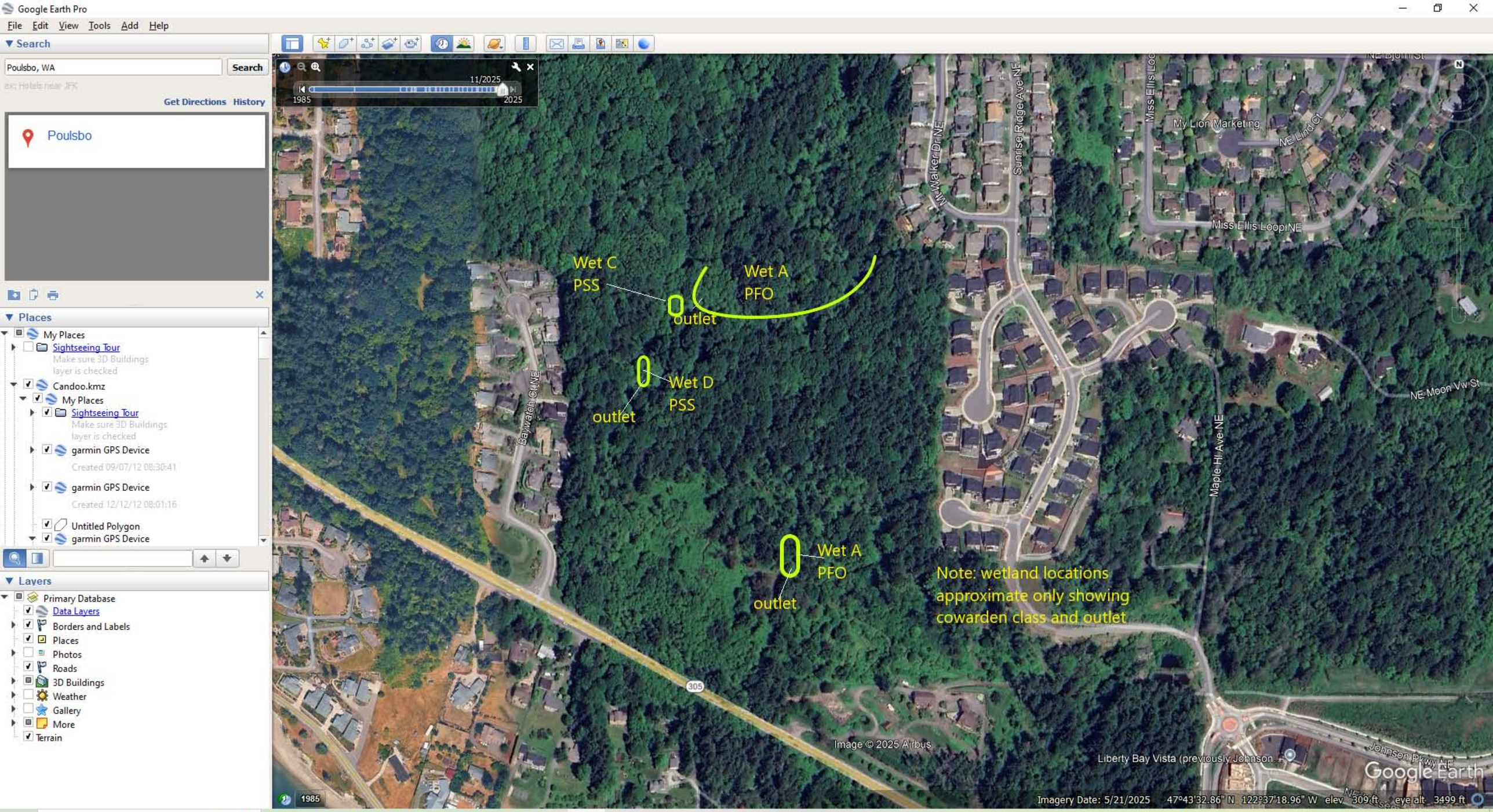
Fish & Wildlife Habitat Conservation Areas
DNR Hydrology Water Type Map



Critical Area Map Series Primary Map Sources and Original Scales:
Delineated Wetlands compiled using Plat Maps from the City of Poulsbo Planning Department.
Hydric Soils United States Department of Agriculture, Soil Conservation Service in cooperation with the Washington State Department of Natural Resources and Washington State University Agricultural Research Center 1977 1:24,000
W.S.D.N.R. Hydrography, Washington State Department of Fish and Wildlife 1:24,000
Deeter, J. 1979, Quaternary Stratigraphy of Kitsap County Appendix III, p 149-159 and Plate 9
Welch, W.B., Frans, L.M., and Olsen, T.D., 2014, Hydrogeologic framework, groundwater movement, and water budget of the Kitsap Peninsula, west-central Washington: U.S. Geological Survey Scientific Investigations Report 2014-5106, 44 p., http://dx.doi.org/10.3133/sir20145106. Prepared in cooperation with the Kitsap Public Utility District.
Kitsap County Assessor's Tax Maps 1:12,000 (Kitsap County IT, GIS Division)
* Note: Saltwater wetlands are not represented on this map, however, they are of concern within the Shoreline Management Act.

This critical area map series is intended for general critical area planning. These maps are schematic representations of physical features, infrastructure, and land ownership boundaries. The map information was derived from available public records and existing sources, not from surveys. Studies may be necessary with project review to verify information.

City of Poulsbo Planning Department GIS
June 14, 2017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Created 12/12/12 08:01:16
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Borders and Labels
Places
Photos
Roads
3D Buildings
Weather
Gallery
More
Terrain
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2025
Wet C
PSS
outlet
Wet A
PFO
Wet D
PSS
outlet
Wet A
PFO
outlet
Note: wetland locations approximate only showing cowarden class and outlet
Bayview Ct NE
Sunrise Ridge Ave NE
Miss Ellis Loop NE
My Lion Marketing
NE Lind Ct
NE Moon Vw St
Maple Hl Ave NE
305
Image © 2025 Airbus
Liberty Bay Vista (previously Johnson...
Johnson Pkwy NE
Google Earth
1985
Imagery Date: 5/21/2025 47°43'32.86" N 122°37'18.96" W elev 309 ft eye alt 3499 ft
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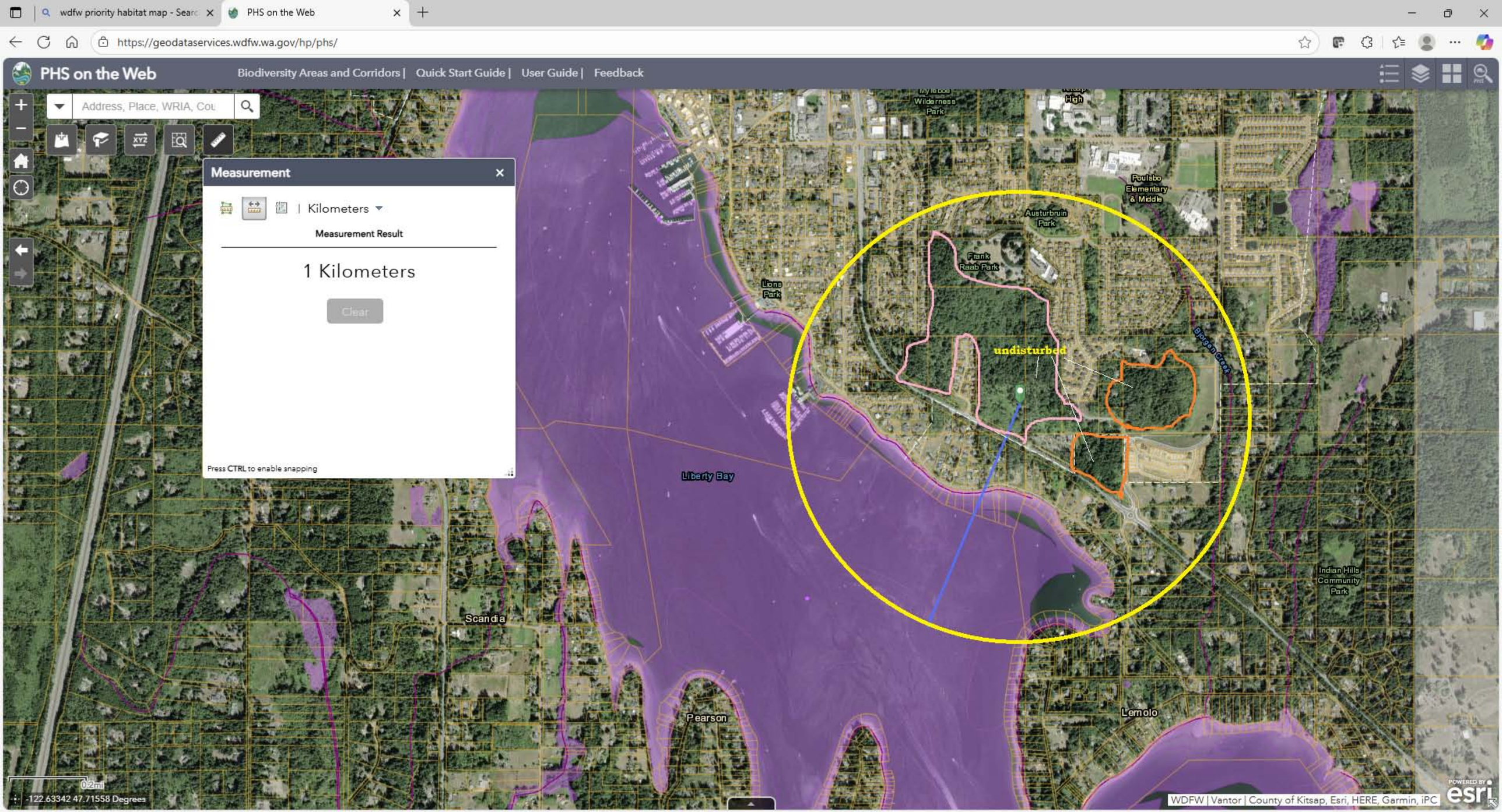
46°F Mostly sunny
12:01 PM
11/19/2025


wdfw priority habitat map - Searc
PHS on the Web
https://geodataservices.wdfw.wa.gov/hp/phs/
PHS on the Web
Biodiversity Areas and Corridors | Quick Start Guide | User Guide | Feedback
Address, Place, WRIA, Cou
Measurement
Kilometers
Measurement Result
1 Kilometers
Clear
Press CTRL to enable snapping
Wilderness Park
Poulsbo Elementary & Middle
Austurbruin Park
Frank Raab Park
Lions Park
undisturbed
Liberty Bay
Scandia
Pearson
Lemolo
Indian Hills Community Park
0.2mi
-122.63342 47.71558 Degrees
WDFW | Vantor | County of Kitsap, Esri, HERE, Garmin, iPC
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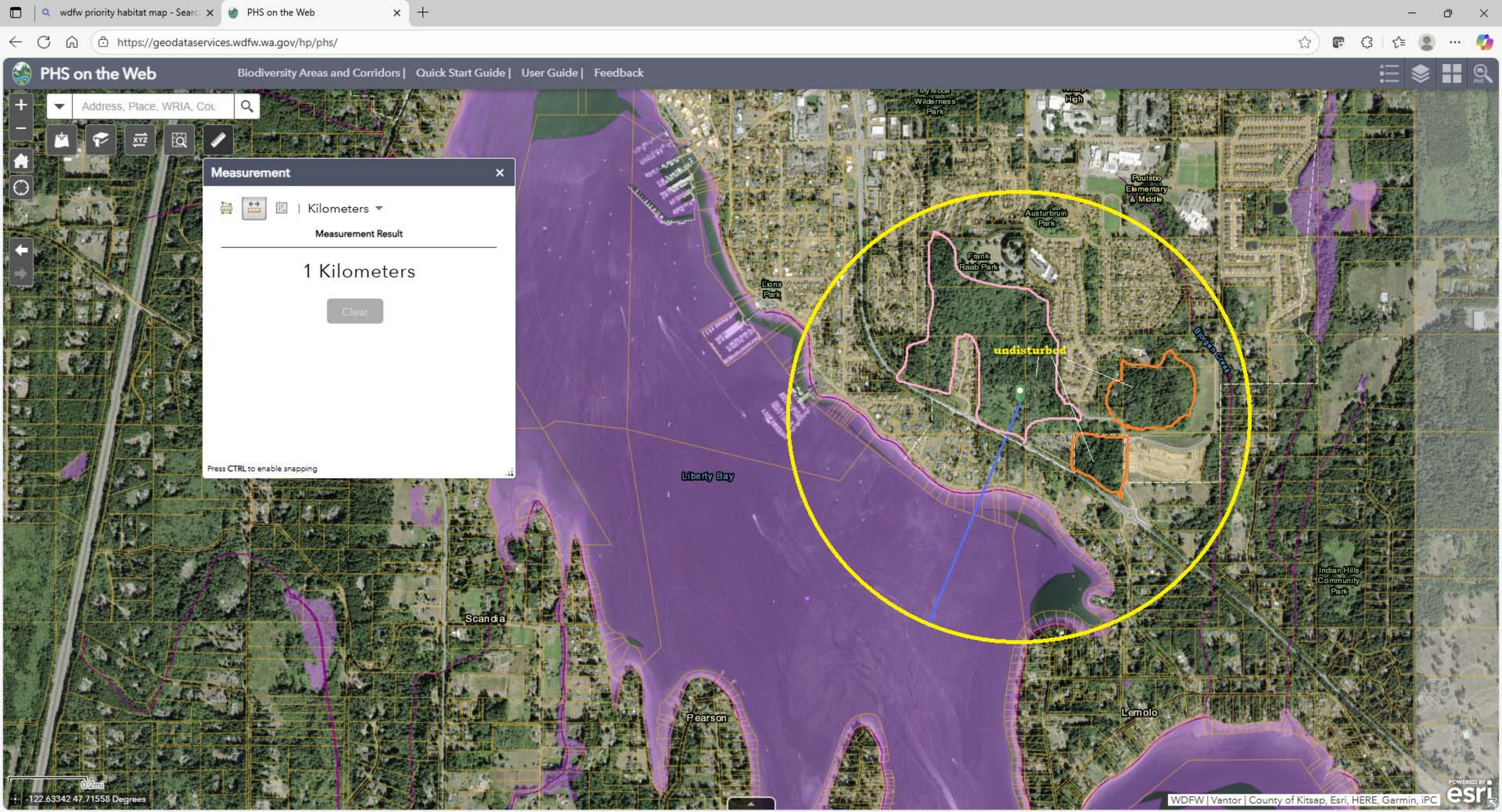
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PHS on the Web
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PHS on the Web
Biodiversity Areas and Corridors | Quick Start Guide | User Guide | Feedback
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Wilderness Park
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Liberty Bay
Scandia
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WDFW | Vantor | County of Kitsap, Esri, HERE, Garmin, iPC
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11/19/2025

Assessment of state waters 303d | Water Quality Atlas - Map

https://apps.ecology.wa.gov/waterqualityatlas/wqa/map?CustomMap=y&BBox=-14338616,5395963,-12562831,6503994&RT=0&Layers=27&Filters=y,n,n,n,n,n&F1.4=n,n,n,n,n,y

DEPARTMENT OF ECOLOGY
State of Washington

Water Quality Atlas Map

Legend | Filter | Zoom | **Tools**

Home | Add/Remove Map Data | My Maps | Print | Share | About

Basic

Drawing

Other

Keyboard Identify | **Measure Distance** | Measure Area | Image Service

Usage:

Click on map to add measure points. Double-click to finsh.

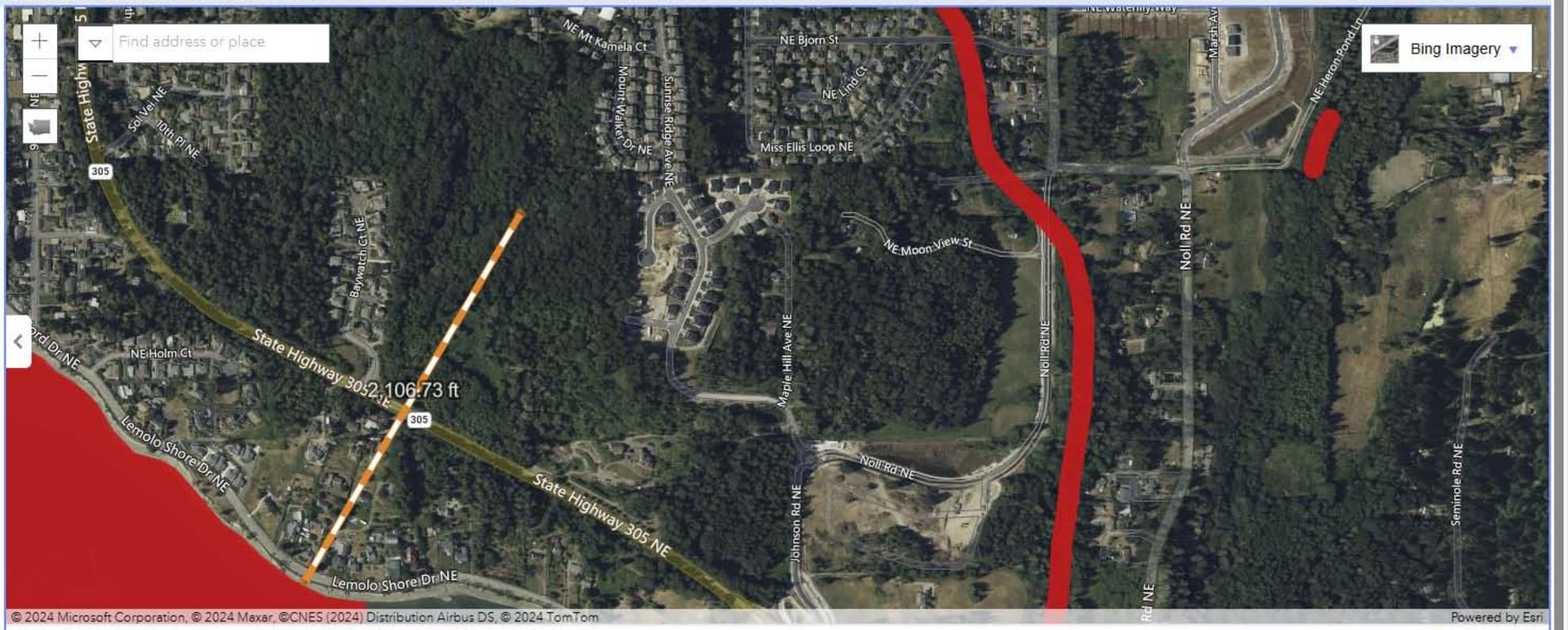
Unit

Feet

Distance

2,106.73 ft

New measurement

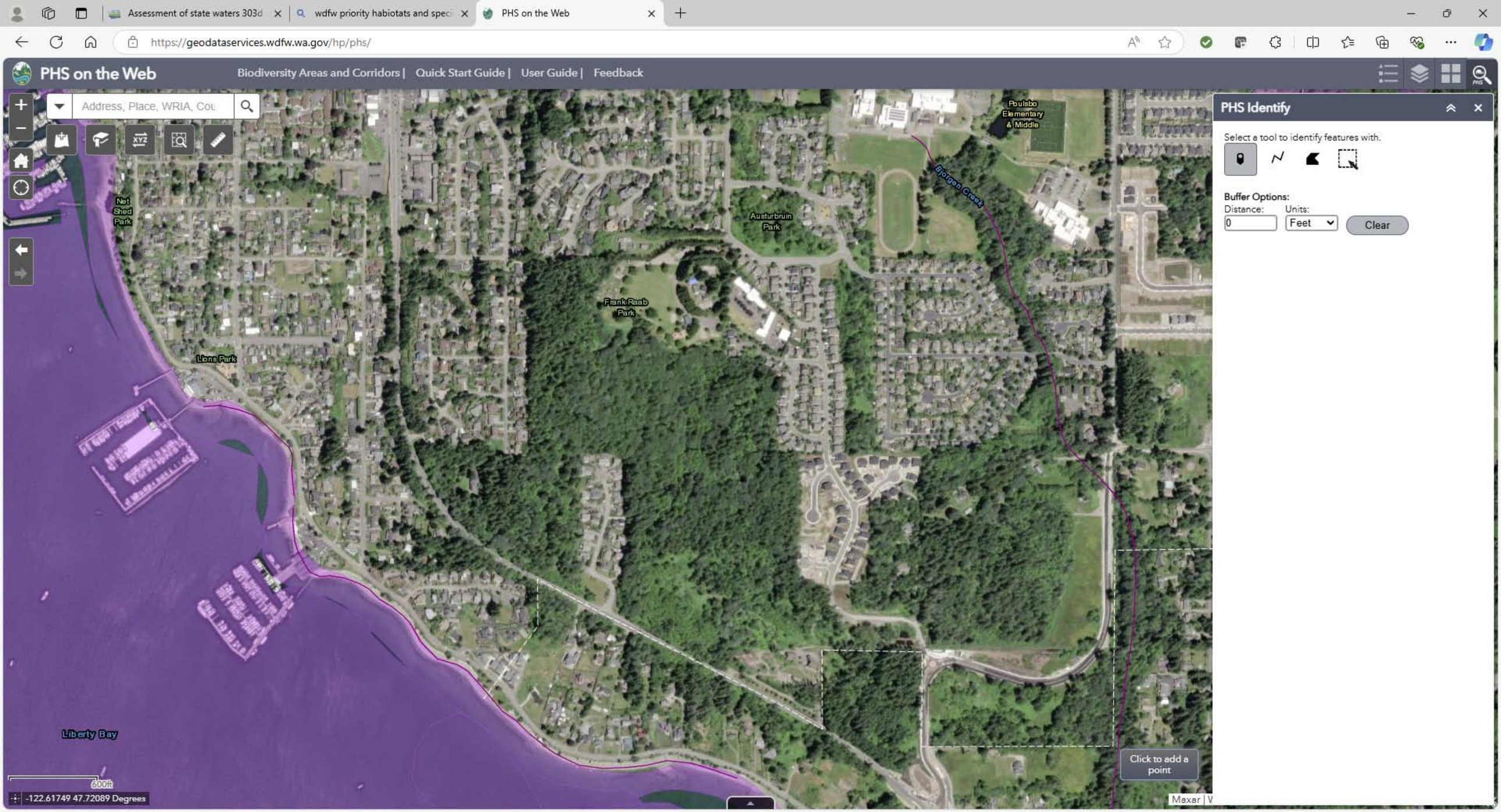


Assessed Water/Sediment | Filter Applied | Clear filters | Zoom to selection | Table to CSV

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	3724	17060108000228_001_001	5	Water	Temperature	View
	3726	17030003000236_001_001	5	Water	Temperature	View
	3727	17030001000538_001_001	5	Water	Temperature	View

Show 5 entries | Showing 1 to 5 of 5,739 entries | First | Previous | Next | Last

Type here to search | S&P 500 +0.01% | 12:40 PM 9/16/2024


Assessment of state waters 303d
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PHS on the Web
https://geodataservices.wdfw.wa.gov/hp/phs/
PHS on the Web
Biodiversity Areas and Corridors |
Quick Start Guide |
User Guide |
Feedback
Address, Place, WRIA, Cou
Net Shed Park
Lions Park
Frank Raab Park
Austurbruin Park
Poulsbo Elementary & Middle
Bjorgen Creek
Liberty Bay
600ft
-122.61749 47.72089 Degrees
PHS Identify
Select a tool to identify features with.
Buffer Options:
Distance:
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Units:
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Click to add a point
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Type here to search
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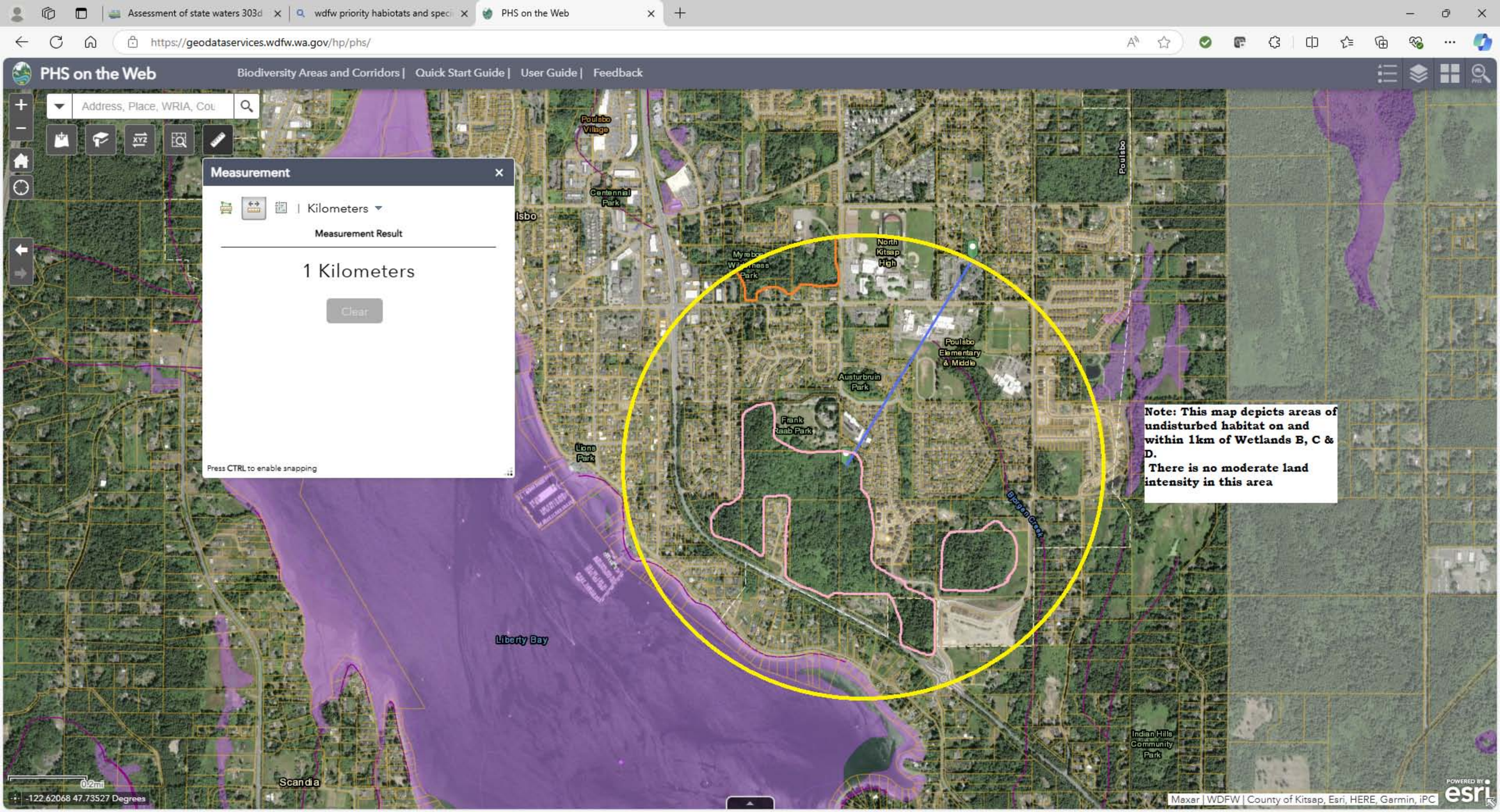
9/16/2024


PHS on the Web
Biodiversity Areas and Corridors | Quick Start Guide | User Guide | Feedback
Address, Place, WRIA, Cou
Measurement
Kilometers
Measurement Result
1 Kilometers
Clear
Press CTRL to enable snapping
Note: This map depicts areas of undisturbed habitat on and within 1km of Wetlands B, C & D.
There is no moderate land intensity in this area
Poulsbo Village
Centennial Park
Myrtle Wilderness Park
North Kitsap High
Poulsbo Elementary & Middle
Austurbruin Park
Frank Raab Park
Lions Park
Liberty Bay
Scandia
Indian Hills Community Park
Maxar | WDFW | County of Kitsap, Esri, HERE, Garmin, iPC
-122.62068 47.73527 Degrees