APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 23, 2023.

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Seattle District, Washington State Department of Transportation (SR 526 Road Improvements), NWS-2022-439-DOT. Name of water being evaluated on this JD form: Wetland CW-24 C. PROJECT LOCATION AND BACKGROUND INFORMATION: County: Snohomish County City: Everett State: Washington Center coordinates of site (lat/long in degree decimal format): Lat: 47.9232 N, Long: -122.2449 W Universal Transverse Mercator: Name of nearest waterbody: Merrill and Ring Creek. Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Puget Sound. Name of watershed or Hydrologic Unit Code (HUC): Lunds Gulch-Frontal Puget Sound, HUC 17110019. Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different JD form. List other JDs: D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: 31 January 2023. Field Determination. Date(s): 11 January 2023. **SECTION II: SUMMARY OF FINDINGS** A. RHA SECTION 10 DETERMINATION OF JURISDICTION. There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: B. CWA SECTION 404 DETERMINATION OF JURISDICTION. There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required] 1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 1 TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 2,650 linear feet 5 width (ft) and/or ____ acres. Wetlands: 0.4 acres. c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Regional Supplement and Established by OHWM. Elevation of established OHWM (if known): . Non-regulated waters/wetlands (check if applicable):³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: _

Version 2-8-08 1 of 8

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

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SEC	CTIC	N II	I: C	WA ANALYSIS			
A.	TNWs AND WETLANDS ADJACENT TO TNWs If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.						
	1.		ntify	TNW: ize rationale supporting determination:			
	2.			l adjacent to TNW ize rationale supporting conclusion that wetland is "adjacent":			
B.	СН	ARA	.CTE	CRISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):			
	A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.						
	is n sigr trib pur	ot an nifica outary poses	RPV nt ne y in o s, the	at is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. If the waterbody W, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a exus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical etributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the its adjacent wetlands, or both.			
	wet	lands	s, and	ers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite d Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a exus exists is determined in Section III.C below.			
	1.	Cha	ract	eristics of non-TNWs that flow directly or indirectly into TNW			
		(i)	Wat Dra Ave	neral Area Conditions: tershed size: 1,570,568.95 acres inage area: 8,711.37 acres erage annual rainfall: 36.05 (USClimateData) inches erage annual snowfall: 1 inches			
		(ii)		vsical Characteristics:			
			(a)	Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 1 tributaries before entering TNW.			
				Project waters are 2-5 river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 2-5 aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: N/A.			
				Identify flow route to TNW ⁵ : The tributary that flows east through the review area enters a culvert 1,439 linear feet from Wetland CW-24, crosses the SR 526 highway, and crosses under 5 th Ave W. The culvert discharges into a stormwater retention pond, then enters another culvert that crosses under Upper Ridge Road before discharging into Merrill and Ring Creek, a relatively permanent water. Merrill and Ring Creek flows approximately 2.7 river miles and discharges into			
				Puget Sound. Tributary stream order, if known:			
			(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural			

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW. Version 2-8-08 2 of 8

Artificial (man-made). Explain: The tributary that flows through the review area is a man-made
ditch developed to convey runoff from State Route (SR) 526, a 6-lane elevated highway. The tributary flows directly through the
northern edge of the wetland, in line with the edge of the SR 526 shoulder, while the wetland extends further south to the edge of the Right-of-Way to private property fencing. There are no natural sources of flow upstream of the wetland as the landscape reaches the top
of a hill approximately 1,420 linear feet to the west of the wetland and then begins to flow downhill further west. A culvert that conveys
additional stormwater from adjacent properties outlets into the downstream portion of the wetland (northeast corner of wetland),
contributing to the downstream flow only.
Manipulated (man-altered). Explain:
Tributary properties with respect to top of bank (estimate):
Average width: 4 feet
Average depth: 0.5 feet
Average side slopes: 2:1.
Primary tributary substrate composition (check all that apply):
Silts Sands □ Concrete
Cobbles Gravel Muck
☐ Bedrock ☐ Vegetation. Type/% cover: Emergent/40-100% ☐ Other. Explain: Lots of debris and trash.
Other. Explain: Lots of deon's and trash.
Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Vegetation within the entire length of the
tributary and along the banks is abundant throughout the upstream and downstream portions of the survey area. The tributary upstream
of the wetland is completely inundated with reed canarygrass growing within and along the banks making the ordinary high water mark
(OHWM) difficult if not impossible to distinguish. Prior to the site visit, the reed canarygrass was mowed creating a mat of vegetation
within the tributary, also obscuring the OHWM. The tributary downstream of the wetland has a more defined channel and much less reed canarygrass, with other aquatic vegetation species growing within the tributary itself. The more defined channel is likely because of
the additional flow contributed by the stormwater culvert originating from adjacent properties that outflows into the wetland and
downstream tributary. The banks of the downstream tributary has abundant vegetation along the bank including reed canarygrass,
grasses, Himalayan blackberry, snowberry, and English ivy.
Presence of run/riffle/pool complexes. Explain: The tributary upstream of the wetland was comprised of entirely stagnant
water at the time of the site visit. At least 4 pools of deeper water where the channel appeared wider were observed in the upstream ditch, though the presence of matted mowed reed canarygrass made it difficult to observe the channel's characteristics. The tributary
downstream of the wetland had two large pools of water with open water with some flow and low vegetation.
Tributary geometry: Relatively straight
Tributary gradient (approximate average slope): 1 %
(c) Flow:
Tributary provides for: Seasonal flow
Estimate average number of flow events in review area/year: 11-20
Describe flow regime: The Streamflow Duration Field Assessment was conducted on 11 January 2023 during the
site visit for the upstream and downstream reaches of the tributary. Due to the presence of macroinvertebrates in both segments of the
tributary, the entire tributary was determined to be intermittent with seasonal flow. Other information on duration and volume: During the site visit on 11 January 2023, there was predominantly standing
water within the tributary upstream of the wetland, and continuous flow within the tributary downstream of the wetland. The consistent
flow throughout the length of the review area for the downstream tributary is likely due to the additional flow contribution from the
culvert conveying stormwater from adjacent properties. The agent noted that there was no surface flow at the time of their site
inspection in August 2020 and provided images that can be found in the administrative record.
Surface flow is: Confined. Characteristics: The entire length of the tributary is confined by the highway edge and a berm
that runs parallel to the fenced border of adjacent properties.
Subsurface flow: Unknown. Explain findings: The tributary upstream of the wetland was difficult to distinguish whether
the water flowed subsurface because of the presence of matted reed canarygrass obscuring the channel bottom. The water was pooling and did not appear to be flowing at the time for the upstream tributary. The tributary downstream of the wetland had continuous surface
flow the entire length of the ditch to the culvert at 5th Ave W.
Dye (or other) test performed:
Tributary has (check all that apply):
 ☑ Bed and banks ☑ OHWM⁶ (check all indicators that apply):
clear, natural line impressed on the bank \(\infty\) the presence of litter and debris
changes in the character of soil destruction of terrestrial vegetation
☐ shelving ☐ the presence of wrack line

3 of 8

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. Version 2-8-08

 ✓ vegetation matted down, bent, or absent ✓ sediment sorting ✓ scour
sediment deposition multiple observed or predicted flow events

Discontinuous OHWM. ⁷ Explain:
Biscontinuous off with. Explain
If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
High Tide Line indicated by: Mean High Water Mark indicated by: survey to available datum;
fine shell or debris deposits (foreshore) physical markings;
physical markings/characteristics vegetation lines/changes in vegetation types.
☐ tidal gauges ☐ other (list):
(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: The water color was clear but there was abundant trash within and around the tributary from the highway and
adjacent properties. This tributary collects stormwater directly from the abutting 6-lane highway and adjacent properties
from the stormwater culvert that feeds into the downstream portion of the wetland. The vegetation within the tributary
serves to filter pollutants and trash from entering the culvert downstream that eventually drains into the RPW and TNW. Identify specific pollutants, if known: 6PPD-quinone, other pollutants generated from highway use.
racianty specific politicants, it known. of the quinone, other politicants generated from ingriway use.
(iv) Biological Characteristics. Channel supports (check all that apply):
 ☐ Riparian corridor. Characteristics (type, average width): ☐ Wetland fringe. Characteristics: The channel directly flows through and abuts Wetland CW-24.
Habitat for:
Federally Listed species. Explain findings:
 ☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings: <u>Macroinvertebrates including diving beetles (Coleoptera</u>
sp.), caddisflies (Trichoptera sp.), snails (Gastropoda sp.), flies (Diptera sp.), and nematodes were observed in samples taken along the
tributary using the Streamflow Duration Field Assessment Method.
Aquatic/wildlife diversity. Explain findings:
2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i) Physical Characteristics:
(i) Physical Characteristics: (a) General Wetland Characteristics:
Properties:
Wetland size: 0.4 acres
Wetland type. Explain: <u>Slope</u> . Wetland quality. Explain: The wetland was rated as a Category IV Slope wetland by the agent; wetland rating sheets
can be found in the administrative record. The wetland was mowed and overgrown with reed canarygrass at the time of the site visit on
11 January 2023. Images taken in August 2020 by the agent show that the wetland had cattails and potentially willow and rush species
within standing water closer to the highway and some Himalyan blackberry. Images taken in September 2022 by the agent show the presence of cattails, a rush species, reed canarygrass, and snowberry within the wetland. Images can be found in the administrative
record within the "Photos" file. The wetland receives water from the ditch, a culvert conveying stormwater from adjacent properties at
the northeast edge of the wetland, and potentially from a subsurface stormwater source from a house at the southwest corner of the
wetland (see images 20230111-37AdjPropSeep and 20230111-38AdjPropSeep). Project wetlands cross or serve as state boundaries. Explain:
Toject wettands closs of serve as state boundaries. Explain.
(b) General Flow Relationship with Non-TNW:
Flow is: Intermittent flow. Explain: Streamflow Duration Field Assessments were conducted on 11 January 2023 for
ditches at the upstream and downstream reaches of the wetland. For both ditches, macroinvertebrates were present but no Ephemeroptera were observed and the slope was 0-2%. FACW and OBL plants were present within 1/2 channel width of the entire
tributary. Perennial indicator species including caddisflies were identified in the downstream portion of the tributary. See the images and
video of macroinvertebrates identified in the samples found in the administrative record. The survey results indicate that both the
upstream and downstream portions of the tributary experience intermittent flow.

Surface flow is: Confined

⁷Ibid.

Version 2-8-08 4 of 8

Characteristics: The entire length of the tributary is confined by the highway edge and a berm that runs parallel along the fenced border of adjacent properties. Subsurface flow: Unknown. Explain findings: The tributary upstream of the wetland was difficult to distinguish whether the water flowed subsurface because of the presence of matted reed canarygrass obscuring the channel bottom. The water was pooling and did not appear to be flowing at the time for the upstream tributary. The tributary downstream of the wetland had continuous surface flow the entire length of the ditch to the culvert at 5th Ave W. Dye (or other) test performed: _____. (c) Wetland Adjacency Determination with Non-TNW: Directly abutting Not directly abutting Discrete wetland hydrologic connection. Explain: . Ecological connection. Explain: _____. Separated by berm/barrier. Explain: (d) Proximity (Relationship) to TNW Project wetlands are 2-5 river miles from TNW. Project waters are 2-5 aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 500-year or greater floodplain. (ii) Chemical Characteristics: Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: There was no observable surface water within the wetland due to the mowed vegetation mat. There was abundant trash within and around the wetland from the highway and adjacent properties. This wetland collects stormwater directly from the abutting 6-lane highway and adjacent properties from the stormwater culvert that feeds into the downstream portion of the wetland. There also appears to be a potential subsurface seep coming from a house at the southwestern portion of the wetland creating a muddy slope toward the highway (see images 20230111-37AdjPropSeep and 20230111-38AdjPropSeep). The vegetation within the wetland serves to collect and filter pollutants and trash from entering the culvert downstream at the 5th Ave W crossing that eventually drains into the RPW and TNW. Identify specific pollutants, if known: 6PPD-quinone, other pollutants generated from highway use. (iii) Biological Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain: Emergent/100% Ħ Habitat for: Federally Listed species. Explain findings: _____. Fish/spawn areas. Explain findings: ____ Other environmentally-sensitive species. Explain findings: <u>Macroinvertebrates including diving beetles (Coleoptera</u> sp.), caddisflies (Trichoptera sp.), snails (Gastropoda sp.), flies (Diptera sp.), and nematodes were observed in samples taken along the tributary abutting the wetland. Aquatic/wildlife diversity. Explain findings: _____. Characteristics of all wetlands adjacent to the tributary (if any) All wetland(s) being considered in the cumulative analysis: 1 Approximately (0.4) acres in total are being considered in the cumulative analysis. For each wetland, specify the following: Directly abuts? (Y/N) Directly abuts? (Y/N) Size (in acres) Size (in acres) Summarize overall biological, chemical and physical functions being performed: This wetland is directly abutting SR 526 and therefore serves to filter pollutants generated from high vehicle traffic from flow that may enter the RPW downstream. The wetland also serves as a physical buffer for adjacent properties from the highway. Minimal biological functions are being performed by the wetland due to periodic mowing conducted by WSDOT to maintain a clear lane for visibility. C. SIGNIFICANT NEXUS DETERMINATION Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

Version 2-8-08 5 of 8

	2.	Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
	3.	Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
D.	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL AT APPLY):	
	1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), or acres. Wetlands adjacent to TNWs: acres.
	2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide rationale indicating that tributary flows perennial: Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Streamflow Duration Field Assessments were conducted on 11 January 2023 for ditches at the upstream and downstream reaches of the wetland. For both ditches, macroinvertebrates were present but no Ephemeroptera were observed and the slope was 0-2%. FACW and OBL plants were present within 1/2 channel width of both ditches. Perennial indicator species including caddisflies were identified in the downstream tributary. See the images and video of macroinvertebrates identified in the samples found in the administrative record. The survey results indicate that both the upstream and downstream portions of the tributary experience intermittent flow. The downstream portion of the tributary also had evidence of an OHWM including a clear, natural line impressed on the bank, disturbed leaf litter, staining, minor shelving, and matting of vegetation. Provide estimates for jurisdictional waters in the review area (check all that apply):
	3.	Tributary waters: 2650 linear feet 5 width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Non-RPWs ⁸ that flow directly or indirectly into TNWs.
		 □ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C. Provide estimates for jurisdictional waters within the review area (check all that apply):
	4.	 Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The ditch along the edge of SR 526 is a seasonally flowing tributary that provides water input to the wetland, through the wetland, and eventually flows into a TNW. The tributary was determined to have intermittent flow using the Stream Duration Field Assessment due to the presence of macroinvertebrates. The wetland is directly abutting the RPW because the tributary flows directly through the northern edge of the wetland.
		Provide acreage estimates for jurisdictional wetlands in the review area: $\underline{0.4}$ acres.
	5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
		Provide acreage estimates for jurisdictional wetlands in the review area: acres.

⁸See Footnote # 3. Version 2-8-08

	Wetlands adjacent to non-KPWs that now directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
	7. Impoundments of jurisdictional waters. As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below).
E.	ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY); 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Identify water body and summarize rationale supporting determination:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.	NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
SE	CTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

Version 2-8-08 7 of 8

To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

\bowtie	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Maps and flow schematic submitted with the AJE
	uest dated 12 July 2022 (20220712-SurveyAreaDrawings).
\boxtimes	Data sheets prepared/submitted by or on behalf of the applicant/consultant.
	Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report.
\boxtimes	Data sheets prepared by the Corps: Streamflow Duration Field Assessment Forms dated 11 January 2023 (20230111-
SDA	AMDatasheets).
	Corps navigable waters' study: The waterbody is on the Section 10 Navigable Waterway List for Seattle District.
	U.S. Geological Survey Hydrologic Atlas:
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
	U.S. Geological Survey map(s). Cite scale & quad name:
	USDA Natural Resources Conservation Service Soil Survey. Citation:
\boxtimes	National wetlands inventory map(s). Cite name: 20230131-NWIMap.
	State/Local wetland inventory map(s):
	FEMA/FIRM maps:
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: 🖂 Aerial (Name & Date): 20230111-SiteVisitMap, dated 11 January 2023
	or 🔀 Other (Name & Date): Multiple photographs, administrative record, "Photos" file.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law:
	Applicable/supporting scientific literature:
\boxtimes	Other information (please specify): 20230208-TNWFlowRt: map showing the flow route from wetland to TNW; 20230131-
FPA	AMTMap: map showing stream type, fish passage barriers, nearby mapped wetlands, and area topography.

- B. ADDITIONAL COMMENTS TO SUPPORT JD: The Watershed Company on behalf of the WA State Department of Transportation (WSDOT) requested a jurisdictional determination for Wetland CW-24, a 0.4-acre Category IV slope wetland located within the right-of-way off the shoulder of State Route (SR) 526 eastbound at milepost 2.70. The wetland is confined by the edge of the 6-lane highway and shoulder on the northern edge and the fenceline separating the highway right-of-way from adjacent private property on the southern edge. The western end of the wetland is defined by a cluster of unmanaged Himalyan blackberry and the eastern end is defined by several mature Douglas fir trees and a slight change in slope. The wetland and ditches appear to be mowed periodically by WSDOT to maintain a clear lane of visibility along SR 526. The northern edge of the wetland is comprised of a ditch that continues upstream and downstream outside of the wetland, conveying water through and to the wetland itself. Therefore, the review area of this JD included the upstream and downstream tributaries abutting the wetland. The flow from the wetland enters a culvert approximately 1,439 linear feet east that crosses under SR 526 and 5th Ave W before outletting into a grassy stormwater detention pond at the corner of 5th Ave W and Upper Ridge Road. The water from the stormwater pond then enters another culvert that outlets into Merrill and Ring Creek, a relatively permanent water that flows into Puget Sound in 2.7 river miles from the culvert outlet. There is a vertical drop from the culvert outlet into Merrill and Ring Creek, creating an impassable fish barrier. There are three total fish barriers documented by SalmonScape (accessed 31 January 2023) along Merrill and Ring Creek between Puget Sound and the review area.
- The upstream reach was surveyed from the western edge of the wetland to approximately 1,420 linear feet to the west of the wetland, to the point where the hill visibly began to go downhill toward the west and away from the wetland. No contributions to flow was visible and surface flow for the upstream portion was not observed; water was present in the ditch but existed mostly in stagnant pools or under large mats of vegetation. The vegetation within the upstream ditch was mowed and large mats of reed canarygrass obscured the entire length of the surveyed channel. There was minimal slope observed within the ditch, but the channel's characteristics were obscured by the vegetation mat. Several pools of deeper stagnant water that pooled above the vegetation mat were observed and two of these pools were sampled for macroinvertebrates as part of the Streamflow Duration Field Assessment method (SDAM). Macroinvertebrates including diving beetles, diptera larvae, aquatic snails, and nematodes were observed in samples taken in the upstream reach, indicating that this portion of the ditch experiences at least an intermittent flow.
- The downstream reach was surveyed from the eastern edge of the wetland to the point where the flow enters a culvert to cross under the highway and 5th Ave W (approximately 1,439 linear feet). A culvert conveying stormwater from adjacent properties outlets at the northeast edge of the wetland, where the downstream reach began. There was flow coming from the culvert contributing to the flow from the wetland at the time of the site visit on 11 January 2023. The downstream reach had less mowed reed canarygrass matted down on the channel and appeared to have more open flowing water with ponding observed at two distinct locations. Other vegetation was growing within the channel and the channel is more defined with more consistent flow than the upstream tributary. There was surface flow observed throughout the downstream reach, likely due to the additional contributions from the stormwater culvert. The SDAM samples taken along this reach included two perennial macroinvertebrates (Trichoptera: Glossosmatidae sp. and Rhyacophilidae sp.) and other macroinvertebrates (Diptera sp., Hirudinea sp., Nematoda sp.), indicating that this portion of the ditch experiences at least an intermittent flow. No Ephemeroptera were observed within the samples taken at the site visit.

The results of the SDAM indicate that both the upstream and downstream reaches from wetland CW-24 experience seasonal flow enough to support macroinvertebrates, therefore this tributary can be considered a relatively permanent water. Since the tributary is relatively permanent and wetland CW-24 is abutting the tributary, the wetland and associated ditch would be jurisdictional waters of the U.S.

Version 2-8-08 8 of 8