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

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 20 January 2023

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Portland District, OR 18 Newberg-Dundee, NWP-2022-345

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: Oregon County/parish/borough: Yamhill City: Newberg
Center coordinates of site (lat/long in degree decimal format): Lat. 45.297018° **N**, Long. 122.951671° **W**.
Universal Transverse Mercator: Refer to Lat./Lon. above.
Name of nearest waterbody: Hess Creek and Spring Brook Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Willamette River
Name of watershed or Hydrologic Unit Code (HUC): Hess Cr-Lower Willamette River 170900070307
☒ 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.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 1 December 2022
☐ Field Determination. Date(s):

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 and are not** "*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 waters[2] (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: 4,560 linear feet: 2-12 width (ft) and/or acres.
      Wetlands: 8.338 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
      Elevation of established OHWM (if known): .

2. **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: **In the review area were roadside ditches with no vegetation or sign of relatively permanent flow. Wetlands WC, WE, and WF were found to be isolated and have no connection to downstream waters. Wetland D6 formed on fill material used on the hillside slope of the roadway embankment constructed in 2017 and abuts Ditch 6. The source of hydrology is stormwater runoff that saturates the soils of the embankment next to Ditch 6. No relatively permanent**

[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.

flow were observed between wetland WD6 and other downstream waters. Ditch 6 discharges stormwater directly into Pond 1. Pond 1 is part of a Section 402 wastewater treatment system (water quality treatment) and was constructed in uplands in 2017 for the retention and treatment of stormwater. Stormwater treatment facilities are excluded from the Corps jurisdiction. Ditches found in the review area which were constructed entirely in uplands and drain only uplands are excluded and waters generally not considered jurisdictional include the following:

Feature	Signs of Permanent Flow?	Feature	Signs of Permanent Flow?
Ditch 1	No	Ditch 2	No
Ditch 3	No	Ditch 4	No
Ditch 5	No	Ditch 6	No
Ditch 7	No	Ditch 8	No
Ditch 9	No	Ditch 10	No
Ditch 11	No	Ditch 12	No
Ditch 13	No	Ditch 14	No
Ditch 15	No		

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over 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. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). 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.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 50 **square miles**

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

Drainage area: 32,000 **acres**
Average annual rainfall: 40.6 inches
Average annual snowfall: 10 inches

(ii) Physical Characteristics:

(a) Relationship with TNW: **Stream S1 – Spring Brook Creek**

☒ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** 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: .

Identify flow route to TNW[5]: Stream S1 (Spring Brook Creek) flows directly into the Willamette River.
Tributary stream order, if known: 4.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: A dam was constructed on Spring Brook Creek in the north eastern portion of the review area and is called Pond 3 in the drawings. The dammed area retain water needed for livestock and irrigation purposes.

Tributary properties with respect to top of bank (estimate):
Average width: 12 feet
Average depth: 4 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☒ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☒ Bedrock	☒ Vegetation. Type/% cover: Willows, Armenian Blackberry, shrubs – 80%	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Spring Brook is relatively stable and has lots of irrigation features.
Presence of run/riffle/pool complexes. Explain: Lots of riffles, pools (dammed areas for water needs), and several runs.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 0.5 %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Spring Brook Creek flows year round and is a perennial waterway.
Other information on duration and volume: .

Surface flow is: **Discrete.** Characteristics: There is a clearly defined channel with an ordinary high water mark and lots of unnamed tributaries which flow directly into the creek.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour

[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.
[6] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):
☒ multiple observed or predicted flow events
☒ abrupt change in plant community

(a) Relationship with TNW: **Stream S2 – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** 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: .

Identify flow route to TNW[7]: Stream S2 flows into a dammed area called Pond 2 before flowing into Spring Brook Creek, which directly flows into the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: The unnamed tributary flows through part of Newberg and then along US HWY 99 before being deflected into a pond (P2) before being discharged into Spring Brook Creek.

Tributary properties with respect to top of bank (estimate):
Average width: 3 feet
Average depth: 1 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☒ Concrete
☒ Cobbles ☒ Gravel ☒ Muck
☒ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: This unnamed Tributary is relatively stable with no observed sloughing banks in the review area.
Presence of run/riffle/pool complexes. Explain: Lots of riffles, pools (dammed areas for water needs), and several run.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Stream S2 flows year round and is a perennial waterway.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: There is a clearly defined channel that has been ditched in several areas with an ordinary high water mark and lots of unnamed tributaries which flow directly into this creek .

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[8] (check all indicators that apply):
☒ clear, natural line impressed on the bank
☒ changes in the character of soil
☒ shelving
☒ vegetation matted down, bent, or absent
☒ leaf litter disturbed or washed away
☒ the presence of litter and debris
☒ destruction of terrestrial vegetation
☒ the presence of wrack line
☒ sediment sorting
☒ scour

[7] 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.
[8] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):

☒ multiple observed or predicted flow events
☒ abrupt change in plant community

(a) Relationship with TNW: **Stream S3 – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **3** 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: .

Identify flow route to TNW[9]: Stream S3 flows into Stream SE and then into Spring Brook Creek and then into the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 3 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:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: This tributary originates about a mile upslope near the top of Rex Hill and drains through several areas in the review area. Channel appears to be relatively stable.
Presence of run/riffle/pool complexes. Explain: Several runs and riffles with pools appearing in some small slope areas.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flows in this tributary are present during the rainy season and tail off in early summer as rains recede.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Surface flow in the tributary are well defined as the channel has a 3 foot width in some locations and varying steepness in banks.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[10] (check all indicators that apply):
☒ clear, natural line impressed on the bank
☒ changes in the character of soil
☒ shelving
☒ vegetation matted down, bent, or absent
☒ leaf litter disturbed or washed away
☒ the presence of litter and debris
☒ destruction of terrestrial vegetation
☐ the presence of wrack line
☒ sediment sorting
☒ scour

[9] 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.
[10] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):

☒ multiple observed or predicted flow events
☐ abrupt change in plant community

(a) Relationship with TNW: **Stream S1b – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** 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: .

Identify flow route to TNW[11]: Flow is from tributary to Spring Brook Creek and then to the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 2.5 feet
Average depth: 0.5 feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☐ Cobbles ☒ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: This is a small perennial stream which originates in Wetland 5 and flows into Spring Brook Creek. The banks are eroding in some of the areas downstream.
Presence of run/riffle/pool complexes. Explain: There are some riffle and run complexes along the tributary.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flow from this stream is perennial based upon multiple observations. Wetland 5 captures flows and then releases it downstream through this tributary.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: The tributary originates in Wetland 5 and flows through several areas before discharging into Spring Brook Creek with a defined channel.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[12] (check all indicators that apply):
☒ clear, natural line impressed on the bank
☒ changes in the character of soil
☒ shelving
☒ vegetation matted down, bent, or absent
☒ leaf litter disturbed or washed away
☒ sediment deposition
☒ water staining
☒ the presence of litter and debris
☒ destruction of terrestrial vegetation
☐ the presence of wrack line
☒ sediment sorting
☒ scour
☒ multiple observed or predicted flow events
☐ abrupt change in plant community

[11] 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.
[12]A 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.

☐ other (list):

(a) Relationship with TNW: **Stream SA – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** 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: .

Identify flow route to TNW[13]: Flows in Stream SA discharge into Spring Brook Creek and then into the Willamette River.

Tributary stream order, if known: 3.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Some areas of manipulation are observed upstream of the review area and a beaver has made a dam in the lower portion of the review area.

Tributary properties with respect to top of bank (estimate):
Average width: 8 feet
Average depth: 2 feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☒ Gravel	☒ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The stream has well established vegetation throughout the corridor and some erosion along some of the banks.
Presence of run/riffle/pool complexes. Explain: Several riffles and runs were observed along with beaver activity.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 1 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flow in this stream are perennial based upon several observations.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are observed in the channel and in a couple areas a beaver has been very active.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[14] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

[13] 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.
[14] A 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.

(a) Relationship with TNW: **Stream SB – Unnamed Tributary**

☐ Tributary flows directly into TNW.

☒ Tributary flows through **3** 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: .

Identify flow route to TNW[15]: The tributary flows into Stream SA, which flows into Spring Brook Creek, which flows into the Willamette River.

Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 2 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:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Hillside seeps feed into this tributary during the wet season and the banks are fairly stable with few signs of erosion.

Presence of run/riffle/pool complexes. Explain: Several small riffle and run complexes with debris pool areas were observed along this tributary.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **1**

Describe flow regime: Flows begin after some aquifer recharge in the rainy season and continue into the summer when rainfall recedes and the aquifer is no longer charged. Flows stop on the surface until the rainy season returns.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are clear when they are present and the channel is well defined.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM[16] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

[15] 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.
[16] A 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.

(a) Relationship with TNW: **Stream SC – Unnamed Tributary**

☐ Tributary flows directly into TNW.

☒ Tributary flows through **3** 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: .

Identify flow route to TNW[17]: Tributary flows into Stream SA, which discharges into Spring Brook Creek, which discharges into the Willamette River.

Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 3 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:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Hillside seeps feed into this tributary during the wet season and the banks are fairly stable with few signs of erosion.

Presence of run/riffle/pool complexes. Explain: Several small riffle and run complexes with debris pool areas were observed along this tributary.

Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**

Describe flow regime: Flows begin after some aquifer recharge in the rainy season and continue into the summer when rainfall recedes and the aquifer is no longer charged. Flows stop on the surface until the rainy season returns.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are clear when they are present and the channel is well defined.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[18] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

[17] 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.
[18] A 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.

(a) Relationship with TNW: **Stream SD – Unnamed Tributary**

☐ Tributary flows directly into TNW.

☒ Tributary flows through **2** 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: .

Identify flow route to TNW[19]: Tributary flows into Spring Brook Creek, which discharges into the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 3 feet
Average depth: 0.5 feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☒ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Hillside seeps feed into this tributary during the wet season and the banks are fairly stable with few signs of erosion.
Presence of run/riffle/pool complexes. Explain: Several small riffle and run complexes with debris pool areas were observed along this tributary.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flows begin after some aquifer recharge in the rainy season and continue into the summer when rainfall recedes and the aquifer is no longer charged. Flows stop on the surface until the rainy season returns.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are clear when they are present and the channel is well defined.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[20] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour
☒ sediment deposition	☒ multiple observed or predicted flow events
☒ water staining	☒ abrupt change in plant community
☐ other (list):	

[19] 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.
[20] A 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.

(a) Relationship with TNW: **Stream SE – Unnamed Tributary**

☐ Tributary flows directly into TNW.

☒ Tributary flows through **2** 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: .

Identify flow route to TNW[21]: Flows in Stream SE discharge into Stream S3 before discharging into Spring Brook Creek and then into the Willamette River.

Tributary stream order, if known: 2.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural

☐ Artificial (man-made). Explain: .

☒ Manipulated (man-altered). Explain: Some areas of manipulation are observed upstream of the review area and includes highway 99. A beaver has made a dam in the lower portion of the review area. Upstream from the beaver dam the flows are relatively shallow as materials have filled in the depth of the channel and has created an area that ranges up to 8 inches in depth with streambed gravels. Upstream from the beaver dam influence the channel is approximately 8 feet wide and up to 4 feet deep. Downstream from the beaver dam the stream is approximately 10 feet wide and approximately 3-4 feet deep.

Tributary properties with respect to top of bank (estimate):
Average width: 70-95 feet
Average depth: >1-4 feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☒ Gravel	☒ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The stream has well established vegetation throughout the corridor and some erosion along some of the banks.

Presence of run/riffle/pool complexes. Explain: Several riffles and runs were observed along with beaver activity which has caused the increase of Wetland H and created a backwater area which makes it difficult to discern the OWHM in this reach.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **1**

Describe flow regime: Flow in this stream are perennial based upon several observations.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are observed in the channel and in the lower reach a beaver has been very active.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM[22] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☒ shelving	☒ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☒ leaf litter disturbed or washed away	☒ scour

[21] 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.
[22] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):

☒ multiple observed or predicted flow events
☒ abrupt change in plant community

(a) Relationship with TNW: **Stream SG – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** 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: .

Identify flow route to TNW[23]: Tributary flows into Spring Brook Creek, which discharges into the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 2 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:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The tributary is a spring from a hillside and additional seeps feed into this tributary during the wet season and the banks are fairly stable with few signs of erosion.
Presence of run/riffle/pool complexes. Explain: Several small riffle and run complexes with debris pool areas were observed along this tributary.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flows begin after some aquifer recharge in the rainy season and continue into the summer when rainfall recedes and the aquifer is no longer charged. Flows stop on the surface until the rainy season returns.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are clear when they are present and the channel is well defined.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[24] (check all indicators that apply):
☒ clear, natural line impressed on the bank
☒ changes in the character of soil
☒ shelving
☒ vegetation matted down, bent, or absent
☒ leaf litter disturbed or washed away
☒ the presence of litter and debris
☒ destruction of terrestrial vegetation
☒ the presence of wrack line
☒ sediment sorting
☒ scour

[23] 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.
[24] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):

☒ multiple observed or predicted flow events
☒ abrupt change in plant community

(a) Relationship with TNW: **Stream SH – Unnamed Tributary**
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** 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: .

Identify flow route to TNW[25]: Tributary flows into Spring Brook Creek, which discharges into the Willamette River.
Tributary stream order, if known: 1.

(b) General Tributary Characteristics (check all that apply):
Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 1 feet
Average depth: 0.5 feet
Average side slopes: **3:1 .**

Primary tributary substrate composition (check all that apply):
☒ Silts ☒ Sands ☐ Concrete
☒ Cobbles ☒ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The Tributary begins at a spring and hillside seeps feed into this tributary during the wet season and the banks are fairly stable with few signs of erosion.
Presence of run/riffle/pool complexes. Explain: Several small riffle and run complexes with debris pool areas were observed along this tributary.
Tributary geometry: **Meandering**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flows begin after some aquifer recharge in the rainy season and continue into the summer when rainfall recedes and the aquifer is no longer charged. Flows stop on the surface until the rainy season returns.
Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Flows are clear when they are present and the channel is well defined.

Subsurface flow: **Unknown**. Explain findings: No sub-surface flow was observed or verified.
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[26] (check all indicators that apply):
☒ clear, natural line impressed on the bank
☒ changes in the character of soil
☒ shelving
☒ vegetation matted down, bent, or absent
☒ leaf litter disturbed or washed away
☒ the presence of litter and debris
☒ destruction of terrestrial vegetation
☒ the presence of wrack line
☒ sediment sorting
☒ scour

[25] 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.
[26] A 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.

☒ sediment deposition
☒ water staining
☐ other (list):
☒ multiple observed or predicted flow events
☒ abrupt change in plant community
☐ Discontinuous OHWM.[27] 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:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water color is clear, water quality is good based upon being outside of Newberg and in a rural area.

Identify specific pollutants, if known: Only known pollutants are from stormwater inputs from roadways and the few homes in the region. Other typical point source pollutants in this region include agricultural use and livestock.

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width): .

☒ Wetland fringe. Characteristics: Wetlands have been observed and delineated at the headwater regions of a couple of the tributaries.

☒ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☒ Aquatic/wildlife diversity. Explain findings: Various insects and wetland vegetation are found in the corridors of the tributaries. Various birds, inveretebrates, and small mammals have been observed in the riparian corridor regions.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 8.338 acres

Wetland type. Explain: Various wetlands contain combinations of palustrine emergent, scrub shrub, and forested.

Wetland quality. Explain: All of the wetlands rank lower on the quality based upon manipulation from land owners for livestock and grazing practices.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Flows begin in the wetlands once the soils have become saturated from winter rains and continue through spring until the rainfall subsides.

Surface flow is**: Overland sheetflow**

Characteristics: All of the jurisdictional wetlands abut the streams in the review area. Wetland W4 has a western portion in the review area that exends outside of the review area and connects to the eastern portion of Wetland W4 in the review area and abuts Spring Brook Creek. Wetlands W8 and W9 extend outside of the review area and abut Hess Creek, a Tributary to Spring Brook Creek. A small portion of Wetland WH is located north of a gravel access road that has a culvert connecting the wetland to itself. The wetland boundaries overlap the tributaries and vegetation is uniform between the wetlands and the tributaries.

Subsurface flow: **Unknown**. Explain findings: .

☐ 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.

[27]Ibid.

Flow is from: **Wetland to navigable waters.**
Estimate approximate location of wetland as within the **2-year or less** 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: Water color is clear, water quality is good based upon being outside of Newberg and in a rural area. The wetlands with beaver improvements are removing point source contaminants from agricultural and livestock uses in the watershed.
Identify specific pollutants, if known: Only known pollutants are from stormwater inputs from roadways and the few homes in the region. Other typical point source pollutants in this region include agricultural use and livestock.

(iii) Biological Characteristics. Wetland supports (check all that apply):
☐ Riparian buffer. Characteristics (type, average width): .
☐ Vegetation type/percent cover. Explain: .
☒ Habitat for:
☐ Federally Listed species. Explain findings: .
☐ Fish/spawn areas. Explain findings: .
☐ Other environmentally-sensitive species. Explain findings: .
☒ Aquatic/wildlife diversity. Explain findings:Various birds, inveretebrates, and small mammals have been observed in the wetland areas.

3. Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: **15-20**
Approximately (8.338) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland W1 - Y	0.002	Wetland W2 - Y	0.071
Wetland W3 - Y	0.065	Wetland W4 - Y	0.254
Wetland W5 - Y	0.307	Wetland W6 - Y	1.890
Wetland W7 - Y	0.020	Wetland W8 - Y	0.055
Wetland W9 - Y	0.067	Wetland W10 - Y	0.328
Wetland W11 - Y	0.022	Wetland WA - Y	0.095
Wetland WB - Y	0.969	Wetland WD - Y	0.071
Wetland WG - Y	1.534	Wetland WH - Y	2.079
Wetland WI - Y	0.088	Wetland WJ - Y	0.421

Summarize overall biological, chemical and physical functions being performed: The biological functions include the use of wildlife and insects in this region as it provides habitat and refuge within a rural area under agricultural use. The chemical functions being performed include the treatment of stormwater and agricultural runoff from the upland uses in the nearby areas. The physical functions being performed include the break-up of the landscape and habitat afforded through the vegetation and riparian corridors.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?

- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **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: .

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: All of the wetlands and tributaries considered in Section II have the capacity to carry pollutants to the Willamette River which is located within a few miles of the Review Area. None of the tributaries reviewed in Section II have the capacity or habitat needed for fish species as the tributary side slopes are steep in several areas. There is an abundance of use by larger mammals, beavers, birds, amphibians, and reptiles. The tributaries and wetlands provide an abundance of nutrients and organic carbon to downstream areas, which has been enriched by a beaver utilizing a couple of these tributaries for resources. These tributaries and wetlands support the chemical, physical, and biological integrity of the Willamette River. The resources provided by the wetlands and tributaries are not insubstantial or speculative.

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: Wetland WC, WE, and WF were initially considered as potentially adjacent to other waters. Upon further review Wetland WC has no chemical, physical or biological connectivity to the nearby Stream SC. Wetland WC is approximately 300 feet away from Stream SC and there is a steep hillside leading down from the wetland to the stream without any vegetation corridor, signs of erosion, or direct hydrological connection. Wetland WE is located on a low slope area above a golf course. Wetland WE has no chemical, physical, or biological connectivity to any waterway as none were observed in the review area or outside of the review area on the golf course. Wetland WF is located in a depression and approximately 5 feet in elevation of land and approximately 150 feet separates the wetland from Wetland WJ. There is no vegetation corridor connecting the two wetlands or any physical connection of flows from Wetland WF to Stream SH. Wetland WF is an isolated depression with no chemical, physical, or hydrological connection to downstream waters. Therefore Wetlands WC, WE, and WF are not jurisdictional. Any resources provided by these wetlands would be insubstantial or speculative at best.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT 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 data and rationale indicating that tributary is perennial: Hess Creek (located outside of the review area to the west), Spring Brook Creek (S1), Unnamed Tributary to Spring Brook Creek (S1B), Unnamed Tributary to Spring Brook Creek (S2), Unnamed Tributary to to Spring Brook Creek (SA), and Unnamed Tributary to Spring Brook Creek (SE). All of these tributaries were evaluated with the Stream Duration Assessment Manual and were found to have relatively permanent perennial flow.
   - ☒ 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: Streams S3, SB, SC, SD, SG, and SH were evaluated with the Stream Duration Assessment Manual with each sample site photo taken from the wetland delineation. SDAM forms were not filled out, however, the flow chart indicated the streams have intermittent flows that ranged from 6 to 9 months of the year.

     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - ☒ Tributary waters: **4,560** linear feet **ranging from 2 to 12** width (ft).
     - ☒ Other non-wetland waters: **2.18** acres.
       Identify type(s) of waters: **Ponds P2 and P3. These are ponded regions of Spring Brook Creek and Stream SA**.

3. **Non-RPWs[28] 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):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.

[28]See Footnote # 3.

Identify type(s) of waters: .

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: The wetland delineation performed reflected no change in vegetation between the wetland and the tributaries where the soils and vegetation of the wetlands and tributaries co-mingled. The wetlands abutting Spring Brook Creek (S1), Hess Creek (located outside the Corps review area), Unnamed Tributary SA, and Unnamed Tributary SE include the following wetlands: Wetland WA, Wetland WB, Wetland WD, Wetland WH, Wetland W1, Wetland W2, Wetland W3, Wetland W4, Wetland W5, Wetland W6, Wetland W7, Wetland W8, Wetland W9, Wetland 10, and Wetland W11.

   ☒ 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 wetland delineation performed reflected no change in vegetation between the wetland and the tributaries where the soils and vegetation of the wetlands and tributaries co-mingled. The wetlands abutting Unnamed Tributary S1b, Unnamed Tributary S2, Unnamed Tributary S3, Unnamed Tributary SB, Unnamed Tributary SC, Unnamed Tributary SD, Unnamed Tributary SG, and Unnamed Tributary SH include the following wetlands: Wetland WG, Wetland WI, and Wetland WJ.

   Provide acreage estimates for jurisdictional wetlands in the review area: **8.338** 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.

6. **Wetlands adjacent to non-RPWs that flow 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.**[29]
   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):[30]

☐ 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):

[29] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[30] **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.***

☐ 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): **There are 15 ditches that have been determined to not be jurisdictional according to regulations in 33 CFR Part 328 located in the review area and meet the description of Waters Generally Not Considered Jurisdictional. The significant nexus determination found Wetlands WC, WE, and WF are completely isolated and have no direct chemical, physical, or biological connection to downstream waters. Wetland WD6 abuts Ditch D6 and drains into Pond 1. Ditch D6 and Pond 1 were constructed as part of a stormwater treatment system under a Section 402 permit to treat stormwater. The ditch and pond were constructed in 2017 and is excluded from waters of the U.S. Drawings for the construction of the pond and embankment have been provided to the Corps.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole 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: 1.051 acres.

SECTION 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):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Wetland and Other Waters Delineation Report, KN19909 OR18: Newberg-Dundee Bypass (Phase 2) prepared by David Evans and Associates and dated June 2022.
☒ 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.
☐ Data sheets prepared by the Corps: .
☒ Corps navigable waters' study: Willamette River.
☒ U.S. Geological Survey Hydrologic Atlas: HUC 170900070307 Hess Creek-Willamette River.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24K Newberg.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Provided in wetland delineation.
☒ National wetlands inventory map(s). Cite name: Provided in wetland delineation.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2022.
or ☒ Other (Name & Date): Delineation site photos 2021.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: On 4 January 2023 we coordinated this JD with EPA Region 10 and Corps HQ. EPA Region 10 responded in an email dated 20 January 2023 and concurred with the Corps findings. Corps HQ responded in an email dated 12 January 2023 concurring with the Corps and had no comments.