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## Regulatory Program



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### **INTERIM APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in the Interim Approved Jurisdictional Determination Form User Manual.

#### **SECTION I: BACKGROUND INFORMATION**

**A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD):** 12 September 2018

**B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ):** NWP-2017-510

#### **C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: Oregon County/parish/borough: Washington City: Sherwood

Center coordinates of site (lat/long in degree decimal format): Lat. 45.3564, Long. -122.8715.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are:  attached  in report/map titled Wetland Delineation for the Proposed Sherwood High School Sherwood, Oregon dated October 9, 2017.

Other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with this action and are recorded on a different jurisdictional determination (JD) form. List JD form ID numbers (e.g., HQ-2015-00001-SMJ-1): N/A.

#### **D. REVIEW PERFORMED FOR SITE EVALUATION:**

Office (Desk) Determination Only. Date: 24 August 2018.

Office (Desk) and Field Determination. Office/Desk Dates: Field Date(s):

#### **SECTION II: DATA SOURCES**

Check all that were used to aid in the determination and attach data/maps to this AJD form and/or references/citations in the administrative record, as appropriate.

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: By Pacific Habitat Service Inc. dated October 9, 2017..

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: By Pacific Habitat Service Inc. dated October 9, 2017..

Data sheets/delineation report are not sufficient for purposes of AJD form. Summarize rationale and include information on revised data sheets/delineation report that this AJD form has relied upon:

Revised Title/Date:

Data sheets prepared by the Corps. Title/Date:

Corps navigable waters study. Title/Date:

CorpsMap ORM map layers. Title/Date:

USGS Hydrologic Atlas. Title/Date: USGS Viewer and SFAM

<https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View..>

USGS, NHD, or WBD data/maps. Title/Date: JD Viewer, SFAM, and USGS Viewer  
<https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View..>

USGS 8, 10 and/or 12 digit HUC maps. HUC number: ORWAP, SFAM, and USGS Viewer  
<https://viewer.nationalmap.gov/basic/?basemap=b1&category=nhd&title=NHD%20View..>

USGS maps. Scale & quad name and date: Sherwood 7.5 QUAD and NHD link above..

USDA NRCS Soil Survey. Citation: NRCS Soil Surveys

<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx..>

USFWS National Wetlands Inventory maps. Citation: USFWS NWI Viewer  
<https://www.fws.gov/wetlands/data/Mapper.html..>

State/Local wetland inventory maps. Citation:

- FEMA/FIRM maps. Citation: .
- Photographs:  Aerial. Citation: . or  Other. Citation: .
- LiDAR data/maps. Citation: .
- Previous JDs. File no. and date of JD letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): ORWAP:  
http://tools.oregonexplorer.info/OE\_HtmlViewer/Index.html?viewer=oe ..

### **SECTION III: SUMMARY OF FINDINGS**

**Complete ORM "Aquatic Resource Upload Sheet" or Export and Print the Aquatic Resource Screen from ORM for All Waters and Features, Regardless of Jurisdictional Status – Required**

#### **A. RIVERS AND HARBORS ACT (RHA) SECTION 10 DETERMINATION OF JURISDICTION:**

"navigable waters of the U.S." within RHA jurisdiction (as defined by 33 CFR part 329) in the review area.

**• Complete Table 1 - Required**

*NOTE:* If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Section 10 navigable waters list, DO NOT USE THIS FORM TO MAKE THE DETERMINATION. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Section 10 RHA navigability determination.

#### **B. CLEAN WATER ACT (CWA) SECTION 404 DETERMINATION OF JURISDICTION: "waters of the U.S." within CWA jurisdiction (as defined by 33 CFR part 328.3) in the review area. Check all that apply.**

(a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))

**• Complete Table 1 - Required**

This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.

(a)(2): All interstate waters, including interstate wetlands.

**• Complete Table 2 - Required**

(a)(3): The territorial seas.

**• Complete Table 3 - Required**

(a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.

**• Complete Table 4 - Required**

(a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

**• Complete Table 5 - Required**

(a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

**• Complete Table 6 - Required**

Bordering/Contiguous.  
Neighboring:

(c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.

(c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.

(c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.

(a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

**• Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

(a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33

CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• **Complete Table 8 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(8) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

**C. NON-WATERS OF THE U.S. FINDINGS:**

**Check all that apply.**

The review area is comprised entirely of dry land.

Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(7) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

Potential-(a)(8) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

• **Complete Table 9 and attach a map delineating the SPOE watershed boundary with potential (a)(8) waters identified in the similarly situated analysis. - Required**

Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.

Excluded Waters (Non-Waters of U.S.), even where they otherwise meet the terms of paragraphs (a)(4)-(a)(8):

• **Complete Table 10 - Required**

(b)(1): Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA.

(b)(2): Prior converted cropland.

(b)(3)(i): Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(b)(3)(ii): Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(b)(3)(iii): Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1)-(a)(3).

(b)(4)(i): Artificially irrigated areas that would revert to dry land should application of water to that area cease.

(b)(4)(ii): Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds.

(b)(4)(iii): Artificial reflecting pools or swimming pools created in dry land.<sup>1</sup>

(b)(4)(iv): Small ornamental waters created in dry land.<sup>1</sup>

(b)(4)(v): Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water.

(b)(4)(vi): Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways.<sup>1</sup>

(b)(4)(vii): Puddles.<sup>1</sup>

(b)(5): Groundwater, including groundwater drained through subsurface drainage systems.<sup>1</sup>

(b)(6): Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.<sup>1</sup>

(b)(7): Wastewater recycling structures created in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Other non-jurisdictional waters/features within review area that do not meet the definitions in 33 CFR 328.3 of (a)(1)-(a)(8) waters and are not excluded waters identified in (b)(1)-(b)(7).

• **Complete Table 11 - Required.**

<sup>1</sup> In many cases these excluded features will not be specifically identified on the AJD form, unless specifically requested. Corps Districts may, in case-by-case instances, choose to identify some or all of these features within the review area.

D. ADDITIONAL COMMENTS TO SUPPORT AJD: The study area is approximately 77.37 acres and located in Washington County, Oregon, northwest of Highway 99W beginning at the southeast intersection of SW Kruger Road and SW Elwert Road. Land use surrounding the study area includes active agriculture, undeveloped forested, land and medium density residential development.

The study area's topography is rolling terrain with a moderate slope increase toward the western portion of the study area. Elevation gradients range from approximately 290 to 360 feet, according to the US Geologic Survey (USGS) 7.5 minute topographic map (Sherwood quadrangle), with the lowest topography in the eastern portion of the study area. Heavily forested portions include a mix of deciduous and evergreen species. The most common species observed in wetlands include black cottonwood (*Populus balsamifera*, FAC) and several species of willow (*Salix* sp. (FAC-FACW)). The southwest and western portion of the study area is densely forested and entirely upland whereas the north and south are utilized for agriculture. Soils are poorly drained through much of the site resulting in shallow seasonal groundwater levels, but slopes are sufficiently steep that water does not appear to pond for very long.

The northeast portion of the study area has been utilized as a tree farm for several years and cleared of vegetation prior to 1994 according to historical imagery. The area is without a substantial nexus to interstate (or foreign) commerce. As the farm was actively managed, there are few fallow areas with the exception of the western forested limits. Air photos indicate a ditch traverses eastward across the north end of the site. It is believed this ditch was recently replaced by a PVC pipe that was observed capturing surface flow and conveying it to an outlet at a culvert that extends north beneath SW Haide Road. The northern and southern agricultural areas are roughly divided by a band of mixed forest, grass seed crop and overgrown fruit orchards. A former residence and associated outbuildings are located at the eastern limits of the study area between the fields. The west is largely forested, but bordered by a relatively open corridor along its west portion of the site and northern boundary that is believed to correspond with a gas line easement.

**Jurisdictional Waters of the U.S.**

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

**Aquatic Resources within the Project Area (ORM Report)**

Regulatory Action Type	State	Cowardin Code	Hgm Code	Type	Size	Local Waterway	Latitude	Longitude
NWP-2017-510 Wetland A	OR	PSS-PALUSTRINE, SCRUB-SHRUB	Slope	OTHERA8F	.02 acre	Wetland A	45.35836	-122.869
NWP-2017-510 Wetland B	OR	PFO-PALUSTRINE, FORESTED	Slope	OTHERA8F	.01 acre	Wetland B	45.35618	-122.868
NWP-2017-510 Wetland C	OR	PFO-PALUSTRINE, FORESTED	Slope	OTHERA8F	.31 acre	Wetland C	45.35512	-122.873
NWP-2017-510 Wetland D	OR	PFO-PALUSTRINE, FORESTED	Slope	A6BWB	.33 acre	Wetland D	45.3548	-122.871
NWP-2017-510 Wetland E	OR	PEM-PALUSTRINE, EMERGENT	Slope	A6BWB	.01 acre	Wetland E	45.35506	-122.871
NWP-2017-510 Wetland F	OR	PEM-PALUSTRINE, EMERGENT	Slope	OTHERA8F	.004 acre	Wetland F	45.35467	-122.868
NWP-2017-510 Wetland G	OR	PEM-PALUSTRINE, EMERGENT	Slope	OTHERA8F	.02 acre	Wetland G	45.35565	-122.868
NWP-2017-510 Field Drainage	OR	R4-RIVERINE, INTERMIT	Riverine	A5	16 ft	Field Drainage	45.35784	-122.873
NWP-2017-510 Roadside Drainage	OR	R4-RIVERINE, INTERMIT	Riverine	A5	1010 ft	Roadside Drainage	45.35791	-122.872

**Table 1. (a)(1) Traditional Navigable Waters**

(a)(1) Waters Name	(a)(1) Criteria	Rationale to Support (a)(1) Designation Include High Tide Line or Ordinary High Water Mark indicators, when applicable.
N/A	Choose an item.	N/A

**Table 2. (a)(2) Interstate Waters**

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
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N/A	N/A
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**Table 3. (a)(3) Territorial Seas**

<b>(a)(3) Waters Name</b>	<b>Rationale to Support (a)(3) Designation</b>
N/A	N/A

**Table 4. (a)(4) Impoundments**

<b>(a)(4) Waters Name</b>	<b>Rationale to Support (a)(4) Designation</b>
N/A	N/A
N/A	N/A

**Table 5. (a)(5) Tributaries**

<b>(a)(5) Waters Name</b>	<b>Flow Regime</b>	<b>(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows</b>	<b>Tributary Breaks</b>	<b>Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.</b>
Road Drainage	Intermittent	Tualatin River	Yes	<p><b>Roadside Drainage</b> is a relocated seasonal or intermittent relatively permanent water (RPW) approximately 1,010 linear feet onsite with a continuous channel which flows offsite to the southeast beneath SW Elwert Road and SW Pacific Highway. Tributary flows are intercepted by a tributary to Cedar Creek (RPW). Cedar Creek (RPW) is a tributary to the Chicken Creek (RPW) and Tualatin River (TNW). The Roadside Drainage drains Wetlands D and E.</p> <p>A relocated headwater tributary and a tributary that drains wetlands meets the definition of an (a)(5) water or “covered tributary”.</p>
Field Drainage	Intermittent	Tualatin River	Yes	<p><b>Field Drainage</b> is a relocated seasonal or intermittent RPW approximately 16 linear feet onsite with a continuous channel that flows offsite to the north beneath SW Haide</p>

				<p>Road via culvert. Tributary flows along the roadside west before a tributary to Chicken Creek (RPW) intercepts flows. Chicken Creek (RPW) is a tributary to the Tualatin River (TNW).</p> <p>A relocated headwater tributary meets the definition of an (a)(5) water or “covered tributary”.</p>
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**Table 6. (a)(6) Adjacent Waters**

<b>(a)(6) Waters Name</b>	<b>(a)(1)-(a)(5) Water Name to which this Water is Adjacent</b>	<b>Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.</b>
Wetland D	Road Drainage (a)(5)	<p><b>Wetland D</b> is approximately 0.33-acre palustrine emergent scrub-shrub broad leaved deciduous seasonally-flooded wetland (PSS1C) and palustrine forested broad leaved deciduous seasonally flooded wetland (PFO1C), with hydrogeomorphic (HGM) class Slope. The wetland is outside of a 100-year floodplain and abuts the OHWM of the Roadside Drainage, thus meeting the neighboring and adjacency as defined. The wetland is located within 100-feet of the OHWM of an (a)(5) “tributary” the Roadside Drainage, meeting the definition for an (a)(6) “adjacent” waters.</p> <p>Part of Wetland D is contained within the 100-foot threshold, portion of the wetland extend to the west and is not considered part of a mosaic. Wetland D has an intermittent flow relationship with the Roadside Drainage which actively drains Wetland D. Wetland D soils and vegetation are problematic due to active farming in portions of the wetland. Soils tested positive to alpha, alpha-dipyridyl. Wetland D surface and subsurface flows vary from year to year due to farming disturbances and evidence of tiles in various states of failure, thus it is recognized that the wetland boundaries may vary from year to year due to human disturbances. Hydrology indicators include surface water, high water table, saturation, algal mat or crust, recent iron reduction in plowed soils, drainage patterns and geomorphic position.</p>
Wetland E	Road Drainage (a)(5)	<p><b>Wetland E</b> is approximately 0.01-acre palustrine emergent persistent seasonally flooded and farmed (PEM1Cf) Cowardin class, with HGM class Slope. The wetland is outside of a 100-year floodplain and abuts the OHWM of the Roadside Drainage, thus meeting the neighboring and adjacency. The wetland is located within 100-feet of the OHWM of an (a)(5) “tributary” the Roadside Drainage, meeting the definition for an (a)(6) “adjacent” waters.</p>

		<p>The whole wetland is contained within the 100-foot threshold and is not considered part of a mosaic. Wetland E has an intermittent flow relationship with the Roadside Drainage located in the lowest topographic point in the field where flows are concentrated before flowing into the roadside ditch to the east. Wetland E soils and vegetation are problematic in the western area due to perennial grass production.</p>
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**Table 7. (a)(7) Waters**

<b>SPOE Name</b>	<b>(a)(7) Waters Name</b>	<b>(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus</b>	<b>Significant Nexus Determination Identify SPOE watershed; discuss whether any similarly situated waters were present and aggregated for SND; discuss data, provide analysis, and summarize how the waters have more than speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.</b>
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

**Table 8. (a)(8) Waters**

<b>SPOE Name</b>	<b>(a)(8) Waters Name</b>	<b>(a)(1)-(a)(3) Water Name to which this Water has a Significant Nexus</b>	<b>Significant Nexus Determination Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to subject water and aggregated for SND; discuss data, provide analysis, and then summarize how the waters have more than speculative or insubstantial effect the on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water, etc.</b>
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

**Non-Jurisdictional Waters**

Default field entry is "N/A". Delete "N/A" and fill out all fields in the table where applicable for waters/features present in the review area.

**Table 9. Non-Waters/No Significant Nexus**

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
Chicken Creek – Sherwood High School	Wetland A	Tualatin	<p><b>Wetland A</b> is approximately 0.02-acre PSS1C with steep gradient slopes. The wetland is hydrogeomorphic (HGM) classified Slope. The wetland is outside of a 100-year floodplain and 100-feet of the OHWM of an (a)(1)-(a)(5) water. The wetland is located within 4,000 feet of the OHWM of an (a)(5) “tributary” water; however, surface flows do not have consistent time and duration to have a significant nexus.</p> <p>Hydrology is focused and confined during rain events to the low point of Wetland A without flow relationship to a TNW. Wetland A experiences seasonal saturation and ponding causing the accumulation of thick algal matting during the dry season (primary hydrology indicator). Wetland A soils are problematic due to vegetation management activities for grasses and overrun with Himalayan blackberry in other areas. The wetland is located in a swale at the subtle break in slope where drainage is impeded and hydrologic conditions remain wetter than surrounding area. Vegetation is dominated with trees and saplings of Oregon ash (<i>Fraxinus latifolia</i>, FACW). Red stem dogwood (<i>Cornus alba</i>, FACW), willow, rose (<i>Rosa sp.</i>, FAC), poison oak (<i>Toxicodendron diversilobu</i>, FAC), bentgrass (<i>Agrostis sp.</i>), and Himalayan blackberry (<i>Rubus armeniacus</i>, FAC). Wetland A surface flows are disconnected and discontinuous without a significant nexus with any other aquatic resources.</p> <p>Significant nexus (c)(5)(i)-(viii) definitions are not met; Wetland A flows are confined to the wetland boundary ((c)(5)(vi)), which is the low topographic point in the west portion of the agricultural field. The wetland does not experience sediment movement ((c)(5)(i)) with limited, if any surface nutrient cycle contribution ((c)(5)(ii)) as a result of the vegetation management activities. The wetland is surrounded by an agricultural field with hydrologic inputs from rain events and a high water table. Impervious areas and drainage areas are far removed without contribution to the wetland runoff storage ((c)(5)(v)) or pollutant trapping, transformation, filtering or transportation ((c)(5)(iii)) similar to a wetland “sink” where material is trapped, preventing export of material and nutrients downstream. Wetland A does provide retention and attenuation of flood waters</p>

			during rain events ((c)(5)(iv)). Wetlands without a surface outlet can function together to reduce or attenuate flooding. However, the wetland is small and flood reduction is limited and small scale. Due to the confined hydrology and transport of material outside of the wetland area export of organics and food resources does not occur ((c)(5)(vii) and (viii)). Thus, Wetland A does not have a significant nexus to other waters.
Chicken Creek – Sherwood High School	Wetland B	Tualatin	<p><b>Wetland B</b> is approximately 0.01-acre palustrine forested broad leaved deciduous seasonally flooded wetland (PFO1C), with HGM class Slope. The wetland is a shallow bowl-shaped feature with hydrology focused and confined during rain events to the low topographic point (Wetland B and C) without a flow relationship to a TNW. Wetland B and C are adjacent, during high or prolonged rain events they can become hydrologically connected due to their proximity. The wetland is outside of a 100-year floodplain and 100-feet of the OHWM of an (a)(1)-(a)(5) water. The wetland is located within 4,000 feet of the OHWM of an (a)(5) “tributary” water; however, surface flows do not have consistent time and duration to have a significant nexus.</p> <p>Wetland B experiences seasonal saturation and ponding during rain events and a high water table within a low geomorphic position (primary hydrology indicator). Wetland B soils are problematic due to vegetation management activities for farming. The wetland habitat transition from forested to shrub in the center of the review area. Dominant vegetation includes balsam poplar, Oregon ash (<i>Fraxinus latifolia</i>, FACW), and Himalayan blackberry (<i>Rubus armeniacus</i>, FAC). Dominant vegetation includes Himalayan blackberry (<i>Rubus armeniacus</i>, FAC) up to the forested boundary. Wetland B is seasonal saturation and ponding during rain events and a high water table within a low geomorphic position are the primary hydrology indicators. Wetland B has a high water table with soil saturation at or near the soil surface. Wetland B surface flows are disconnected and discontinuous without a significant nexus with any other aquatic resources.</p> <p>Significant nexus (c)(5)(i)-(viii) definitions are not met; Wetland B flows seasonally and is confined to the Wetland B and C boundary ((c)(5)(vi)), which are the low geomorphic positions in the southcentral portion of the agricultural field. The wetland does not exhibit sediment movement ((c)(5)(i)) outside of the wetland area, the wetland likely experiences surface nutrient cycle contribution ((c)(5)(ii)) being a forested wetland with moderate leaf litter from the canopy. The nutrient contribution is confined to the wetland area until percolated into the ground water. The wetland is surrounded by an agricultural field with hydrologic inputs from rain events and a high water table confined to the wetland area. Impervious areas and drainage areas are far removed without contribution to the wetland runoff storage ((c)(5)(v)) or pollutant trapping, transformation, filtering or transportation ((c)(5)(iii)) similar to a wetland “sink” where material is trapped, preventing export of material and nutrients downstream. Wetland B does provide retention and attenuation of flood waters during rain events ((c)(5)(iv)).</p>

			<p>Wetlands without a surface outlet can function together to reduce or attenuate flooding. However, the wetland is small and flood reduction is limited and small scale. Due to the confined hydrology and transport of material outside of the wetland area, export of organics, and food resources does not occur ((c)(5)(vii) and (viii)). Thus, Wetland B does not have a significant nexus to other waters.</p>
<p>Chicken Creek – Sherwood High School</p>	<p>Wetland C</p>	<p>Tualatin</p>	<p><b>Wetland C</b> is approximately 0.31-acre PFO1C/PSS1C wetland, with HGM class Slope. The wetland slopes west to east with hydrology focused and confined during rain events to the low geomorphic position (Wetland B and C) within the wetlands without a flow relationship to a TNW. Wetland B and C are adjacent, during high or prolonged rain events they can become hydrologically connected due to their proximity. The wetland is outside of a 100-year floodplain and 100-feet of the OHWM of an (a)(1)-(a)(5) water. The wetland is located within 4,000 feet of the OHWM of an (a)(5) “tributary” water; however, surface flows do not have consistent time and duration to have a significant nexus.</p> <p>Wetland C has seasonal saturation and ponding during rain events and with a high water table within the low geomorphic position of the wetland (primary hydrology indicator). Wetland C soils and vegetation are problematic due to active farming in portions of the wetland and evidence of tiles in various states of failure. Due to the human activities and infrastructure described above the wetland boundaries vary over time. The soils test positive to alpha, alpha-dipyridyl. The wetlands have shallow groundwater, soil saturation, iron reduction in plowed soils, algal matting, surface water discharges into the western limits of the wetland and flow downslope to the east, to the wetlands low geomorphic position. Field tiles and failing tiles indicated permanent hydrology alterations that contribute to the sites surface and subsurface flow variability from its normal regime. Wetland C surface flows are disconnected and discontinuous without a significant nexus with any other aquatic resources.</p> <p>Significant nexus (c)(5)(i)-(viii) definitions are not met; Wetland C flows seasonally and is confined to the Wetland B and C boundary ((c)(5)(vi)), which are the low topographic positions in the southcentral portion of the agricultural field. There is no sediment movement ((c)(5)(i)) outside of the wetland area. The wetland likely experiences surface nutrient cycle contribution ((c)(5)(ii)) being a forested and scrub-shrub wetland with moderate leaf litter from the canopy; however, the nutrient contribution is confined to the wetland area until percolated into the ground water. The wetland is surrounded by an agricultural field with various human modifications that alters the natural hydrologic inputs. At this time the hydrology is from rain events and a high water table confined to the wetland area. Impervious areas and drainage areas are far removed without contribution to the wetland runoff storage ((c)(5)(v)) or pollutant trapping, transformation, filtering or transportation ((c)(5)(iii)) where material is trapped, preventing export of material and nutrients downstream. Wetland C does provide</p>

			<p>retention and attenuation of flood waters during rain events ((c)(5)(iv)). The wetland is small and flood reduction is limited and small scale, the confined hydrology and transport of material outside of the wetland area, export of organics and food resources does not occur ((c)(5)(vii) and (viii)). Thus, Wetland C does not have a significant nexus to other waters.</p>
<p>Chicken Creek – Sherwood High School</p>	<p>Wetland F</p>	<p>Tualatin</p>	<p><b>Wetland F</b> is approximately 0.004-acre PEM1C wetland with HGM class Slope. The wetland hydrology is seasonally saturated with surface runoff and shallow groundwater due to local topography. Wetland F lies within close proximity to a PVC drain pipe inlet that captures and conveys ephemeral overland flow beneath the northern field to an outlet located along SW Haide Road. While ephemeral flows are present between Wetlands F, G, and a roadside drainage, the time and duration of flows don't contribute to downstream flows and the flow dissipates in the drainage channel. The wetland is outside of a 100-year floodplain and 100-feet of the OHWM of an (a)(1)-(a)(5) water. The wetland is located within 4,000 feet of the OHWM of an (a)(5) "tributary" water; however, surface flows do not have consistent time and duration to have a significant nexus.</p> <p>Hydrologic indicators include water ponding, surface saturation and a shallow water table within a low geomorphic position. Wetland F soils and vegetation are problematic due to previous tree farm production. Hydric soil indicators include redox dark surface and hydrology indicators include surface water, high water table, saturation, drainage patterns and geomorphic position. The wetland is dominated by spike bentgrass (<i>Agrostis exarata</i>, FACW), reed canarygrass (<i>Phalaris arundinacea</i>, FACW) and lamp rush (<i>Juncus effusus</i>, FACW). Wetland F and G surface flows are disconnected and discontinuous without a significant nexus with any other aquatic resources.</p> <p>Significant nexus (c)(5)(i)-(viii) definitions are not met; Wetland F flows are confined to the Wetland F, G, and a roadside drainage boundaries ((c)(5)(vi)), which are the low geomorphic position in the north portion of the agricultural field. The wetland does not experience sediment movement ((c)(5)(i)) with limited, if any surface nutrient cycle contribution ((c)(5)(ii)) as a result of the vegetation management activities. However, the nutrient contribution is confined to the wetland area until percolated into the ground water. The wetland is surrounded by an agricultural field with various human modifications that alters the natural hydrologic inputs. Wetland hydrology is from rain events and a high water table confined to the wetland area. Impervious areas and drainage areas are far removed without contribution to the wetland runoff storage ((c)(5)(v)) or pollutant trapping, transformation, filtering or transportation ((c)(5)(iii)) where material is trapped, preventing export of material and nutrients downstream. Wetland F does provide retention and attenuation of flood waters during rain events ((c)(5)(iv)). The wetland is small and flood reduction is limited, the confined hydrology prevents transport of material outside of the wetland area, export of organics, and food</p>

			resources does not occur ((c)(5)(vii) and (viii)). Thus the Wetland F does not have a significant nexus to other waters.
Chicken Creek – Sherwood High School	Wetland G	Tualatin	<p><b>Wetland G</b> is approximately 0.02-acre PEM1C wetland with HGM class Slope. The wetland hydrology is seasonally saturated with surface runoff and shallow groundwater due to local topography. Wetland G lies within close proximity to a PVC drain pipe inlet that captures and conveys ephemeral overland flow beneath the northern field to an outlet located along SW Haide Road. While ephemeral flows are present between Wetlands F, G, and a roadside drainage, the time and duration of flows don't contribute to downstream flows and the flow dissipates in the drainage channel. The wetland is outside of a 100-year floodplain and 100-feet of the OHWM of an (a)(1)-(a)(5) water. The wetland is located within 4,000 feet of the OHWM of an (a)(5) "tributary" water; however, surface flows do not have consistent time and duration to have a significant nexus.</p> <p>Water ponds causing surface saturation and a shallow water table immediately after rain events. Wetland G has seasonal saturation and ponding during rain events and a high water table within a low geomorphic position (primary hydrology indicators). Wetland G soils and vegetation are problematic due to previous tree farm production. Hydric soil field indicators include redox dark surface and hydrology indicators include surface water, high water table, saturation, drainage patterns and geomorphic position. The wetland is dominated by spike bentgrass (<i>Agrostis exarata</i>, FACW), reed canarygrass (<i>Phalaris arundinacea</i>, FACW) and lamp rush (<i>Juncus effusus</i>, FACW). Wetland F and G surface flows are disconnected and discontinuous without a significant nexus with any other aquatic resources.</p> <p>Significant nexus (c)(5)(i)-(viii) definitions are not meet; Wetland G flows are seasonal and confined to the Wetland F, G, and a roadside drainage boundaries ((c)(5)(vi)), which are the low geomorphic position in the north portion of the agricultural field. The wetland does not experience sediment movement ((c)(5)(i)) with limited, if any surface nutrient cycle contribution ((c)(5)(ii)) as a result of the vegetation management activities. However, the nutrient contribution is confined to the wetland areas until percolated into the ground water. The wetland is surrounded by an agricultural field with various human modificatons that alters the natural hydrologic inputs. At this time the hydrology is from rain events and a high water table confined to the wetland area. Impervious areas and drainage areas are far removed without contribution to the wetland runoff storage ((c)(5)(v)) or pollutant trapping, transformation, filtering or transportation ((c)(5)(iii)) where material is trapped, preventing export of material and nutrients downstream. Wetland G does provide a small scale retention and attenuation of flood waters during rain events ((c)(5)(iv)). The wetland has confined hydrology preventing transport of material outside of the wetland area, export of organics, and food resources does not</p>

			occur ((c)(5)(vii) and (viii)). Thus, Wetland G does not have a significant nexus to other waters.
Chicken Creek – Sherwood High School	Similarly Situated Waters	Tualatin	<p>Wetlands A-C, F, and G are similarly situated waters to each other, with the same system level (palustrine) and varying classes (forested, scrub-shrub, and emergent). The five wetlands onsite are within 4,000 feet of two (a)(5) waters that are also located in the review area.</p> <p>The site has two single points of entry (SPOE), one at each drainage. The review area has soil drainage classes moderate (yellow) and unknown (white), landform classes escarpments (blue) and Hills (peach), and vegetation classes forested woodlands (green), semi-natural vegetation (pink), shrublands, and grasslands (orange), and unknown (white).</p> <p>Within the uninterrupted soil, vegetation, and landform (SVL) described in the paragraph above one similarly situated wetland in the same system class was identified on the National Wetland Inventory (NWI). It is recognized that local wetland inventories account for additional similarly situated wetlands, include the five reviewed in this document, with more precision than NWI because the analysis is at the local level.</p>

**TyTable 10. Non-Waters/Excluded Waters and Features**

<b>Paragraph (b) Excluded Feature/Water Name</b>	<b>Rationale for Paragraph (b) Excluded Feature/Water and Additional Discussion.</b>
N/A	N/A
N/A	N/A

**Table 11. Non-Waters/Other**

<b>Other Non-Waters of U.S. Feature/Water Name</b>	<b>Rationale for Non-Waters of U.S. Feature/Water and Additional Discussion.</b>
N/A	N/A
N/A	N/A