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

REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 3, 2022 A.

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:NWP-2020-457

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Oregon County/parish/borough: Jackson City: White City Center coordinates of site (lat/long in degree decimal format): Lat. 42.433275° N, Long. 122.825323° W. Universal Transverse Mercator:

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Rogue River

Name of watershed or Hydrologic Unit Code (HUC): Whetone Creek - Rogue River (171003080202)

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):

 \boxtimes Office (Desk) Determination. Date: May 27, 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 "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.

 \Box

- a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs: Tributary 1 and 2
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs: PEM A and PEM B
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs: VP1-9
 - 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: In total, Tributary 1 and 2 are 930 linear feet: In total, Tributary 1 and 2 are 6 width (ft) and/or 0.06 acres. Wetlands: In total, VP1-9 are 0.57 acres. In total, PEM A and PEM B are 0.22 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:

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).

Supporting documentation is presented in Section III.F.

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 waterbody⁴ 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: 396 square miles Drainage area: 19.6 square miles Average annual rainfall: 19 inches Average annual snowfall: 5 inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ☑ Tributary flows through 6 tributaries before entering TNW.

Project waters are 5-10 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 TNW⁵: Tributary 1 and 2 flow to the west and have a hydrologic surface water connection to a tributary that is located outside of the Review Area (Offsite Tributary 3). Offsite Tributary 3 flows to the north along the

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

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.

western boundary of the Review Area. Water then enters another offsite tributary that is located immediately to the north of the Review Area (Offsite Tributary 4). Offsite Tributary 4 transitions from an open channel to a subsurface stormwater conveyance system at Wilson Way. Water in the conveyance system drains to a tributary along Highway 62 located to the southwest of the Review Area (Offsite Tributary 5). Offsite Tributary 5 flows to the southwest and enters Agate Slough. Water in Agate Slough flows into Whetstone Creek and then drains into the Rogue River which is a TNW. In an email to the Corps dated September 27, 2021, Rogue Valley Sewer Services confirmed the hydrologic connection between Offsite Tributary 4 and the Rogue River that is described above and provided a map that detailed the stormwater conveyance infrastructure.

Tributary stream order, if known: First order.

(c)

(b)

General Tributary Characteristics (check all that apply): Tributary is:
Tributary properties with respect to top of bank (estimate): Average width: 4 feet Average depth: 3 feet Average side slopes: 3:1 .
Primary tributary substrate composition (check all that apply):
Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Unknown. Presence of run/riffle/pool complexes. Explain: NA. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 3 %
Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: The hydrological sources for Tributaries 1 and 2 are precipitation and stormwater runoff. On average, the White City region receives rainfall on 96 days per year (Oregon State University 2022). Photographs of Tributary 1 provided as part of the wetland delineation survey show matted vegetation along the OHWM. The centerlines of Tributaries 1 and 2 lack vegetation and have a layer of biotic crust. Furthermore, these features have OHWMs that are defined by a topographic break in slope, and a change in vegetation and substrate. All of these factors indicate that Tributaries 1 and 2 have surface water flow for three months or more on an annual basis. Other information on duration and volume:
Surface flow is: Discrete and confined. Characteristics: The lateral limits of Tributary 1 are visually apparent and defined by the OHWM. Flow is restricted within the bed and banks.
Subsurface flow: Yes. Explain findings: The Review Area is underlain by Agate-Winlo soil. Typical of this soil type, there is an impermeable, indurated clay hardpan layer between 8 and 30 inches in the soil profile. The hardpan layer allows for subsurface lateral flow in the upper portion of the soil profile. Dye (or other) test performed:
Tributary has (check all that apply): Bed and banks

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

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

Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): Mean High Water Mark indicated by:

- High Tide Line indicated by:
 - oil or scum line along shore objects
 - fine shell or debris deposits (foreshore)
 - physical markings/characteristics
 - tidal gauges
 - \square other (list):

- 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: Due to the relatively flat topography of the Review Area, flow velocities in Tributaries 1 and 2 are slow. As a result of pollutant discharge and slow flow velocities, water quality in Tributary 1 is low. However, wetlands in the Review Area function as bioswales, taking up pollutants and filtering them out of the aquatic ecosystem before surface and subsurface water flows to streams within and outside the Review Area.

Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width):
- \boxtimes Wetland fringe. Characteristics: Palustrine emergent wetland vegetation extends landward of the OHWM of Tributaries 1 and 2 which indicates that water regularly exceeds the OHWM and top of banks. During high rainfall and flood events, surface water in Tributary 1 and PEM A can also extend to nearby vernal pools. For example, VP6 and 9 are roughly 5 feet away from the northern edge of PEM A.
- Habitat for:

Federally Listed species. Explain findings: In a communication between the consultant and the U.S. Fish and Wildlife Service (USFWS), vernal pool fairy shrimp (Branchinecta lynchi) are considered to be present in all aquatic features in the Review Area, including Tributaries 1 and 2, vernal pool wetlands, and palustrine emergent wetlands (Schott & Associates, 2022). Federally listed plants, such as Cook's lomatium (Lomatium cookii) and large flowered woolly meadowfoam (Limnanthes floccosa ssp. grandiflora) may also occur in the Review Area in vernal pools and their flanks, and in palustrine emergent wetlands. The seeds of both species float and are transported via suface water between discontinuous wetland features during high rainfall and flood events.

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: The Review Area is located within single-family zoning in White City. In recent years, this area is rapidly being developed for residential housing. The Review Area is currently undeveloped and serves as a refugia for nesting birds, mammals (e.g., foxes and coyotes), rodents, reptiles, amphibians, and insects.

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

Physical Characteristics: (i)

(a) General Wetland Characteristics:

Properties:

Wetland size: In total, VP1-9 are 0.57 acres. In total, PEM A and PEM B are 0.28 acres

Wetland type. Explain: VP1-9 are vernal pools that have been disconnected from the historic Agate Desert Complex. PEM A and B are palustrine emergent wetlands.

Wetland quality. Explain: The hydrological sources for Tributaries 1 and 2 are incident rainfall and stormwater runoff from surrounding roadways and residential developments. Stormwater flowing off impervious surfaces delivers pollutants to vernal pool wetlands, and palustrine emergent wetlands. Wetlands in the Review Area function as bioswales, taking up pollutants and filtering them out of the aquatic ecosystem before surface and subsurface water flows to streams within and outside the Review Area. As such, water quality in wetlands is low.

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: Intermittent flow. Explain: Surface water is present in VP1-9 and PEM A and B within the features for at least three months each year during the wet season

Surface flow is: PEM A and B: Discrete and Confined. VP1-9: Confined.

Characteristics: PEM A and B and VP1-9 are seasonal wetlands that pond in response to rainfall and stormwater runoff. PEM A and B have discrete and confined flow as they are channelized swales and their lateral limits are distinguishable from abutting tributaries and uplands. VP1-9 lack evidence of channelization and are confined to topographic depressions. During high precipitation events and floods, water exits the normal boundaries of VP1-9 as overland sheetflow where it can then flow into Offsite Tributary 3. PEM A abuts Tributary 1 and PEM B abuts Tributary 2. These wetlands interact directly with the stream channels. During high precipitation events and floods, surface water can top the shallow banks of the tributaries and enter PEM A and B. During these events, Tributary 1 and PEM A can also have a surface water interaction with VP 6 and VP9 which are roughly 5 feet from the northern edge of PEM A.

Subsurface flow: **Yes**. Explain findings: The Review Area is underlain by Agate-Winlo soil. Typical of this soil type, there is an impermeable, indurated clay hardpan layer at approximately 8-23 inches in the soil profile in vernal pools. This clay hardpan layer is also present in mounded uplands between vernal pools and occurs between 20 and 30 inches in the soil profile. The hardpan layer allows for subsurface lateral flow in the upper portion of the soil profile. Water that is not evapotranspirated or is not part of the overland sheetflow will percolate to the hardpan layer and move laterally above this layer towards topographical low points. Vernal pool wetlands in the Review Area discharge subsurface water to the west where it enters Offsite Tributary 3.

Dye (or other) test performed:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

Directly abutting: PEM A and PEM B.

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain: VP1-9 maintain an ecological connection with Offsite Tributary 3 as described above under Section B 2i(b) through subsurface flow. VP4 and VP5 extend outside of the Review Area to the west, but the wetland delineation survey was limited to the Review Area. At most, VP4 and VP5 are 10 feet upslope from Offsite Tributary 3. VP7 and VP8 are the furthest away from Offsite Tributary 3 at roughly 400 feet. PEM A and PEM B directly abut Tributaries 1 and 2. In addition, during high precipitation events and floods, Tributary 1 and PEM A can also have a surface water interaction with VP 6 and VP9 which are roughly 5 feet from the northern edge of PEM A. These ecological connections allow for the movement of aquatic plants and wildlife between streams and wetlands, such as the federally listed vernal pool fairy shrimp, and the seeds of large flowered woolly meadowfoam and Cook's lomatium.

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **10-15** river miles from TNW. Project waters are **5-10** aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the **2 - 5-year** 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: The hydrological sources for palustrine emergent wetlands and vernal pools are incident rainfall and stormwater runoff. Stormwater flowing off impervious surfaces delivers pollutants to wetlands which function as bioswales, taking up pollutants and filtering them out of the aquatic ecosystem before surface and subsurface water flows to streams within and outside the Review Area. As a result of pollutant discharge and slow flow velocities, water quality in Tributary 1 is low. Whetstone Creek and its' confluence with the Rogue River receive significant wet weather stormwater flow from the urbanized portions of the watershed in White City (Rogue Valley Council of Governments, 2012). Development in the vicinity of the Review Area has also removed riparian shading of streams and increased water temperature. For example, water temperature in the summer months often reaches 68 degrees in Whetstone Creek, which is slightly higher than acceptable to support salmonids. In turn, dissolved oxygen levels trend toward the lower range of what is acceptable for salmonids (Rogue Valley Council of Governments, 2012). Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: Percent cover of vegetation and bare ground is highly variable in wetland features.
- Habitat for:

⊠ Federally Listed species. Explain findings: In a communication between the consultant and the USFWS, vernal pool fairy shrimp are considered to be present in all aquatic features in the Review Area, including Tributaries 1 and 2, vernal pool wetlands, and palustrine emergent wetlands (Schott & Associates, 2022). Federally listed plants, such as Cook's lomatium (*Lomatium cookii*) and large flowered woolly meadowfoam (*Limnanthes floccosa ssp. grandiflora*) may also occur in the Review Area in vernal pools and their flanks, and in palustrine emergent wetlands. The seeds of both species float and are transported via surface water between discrete wetland features during high rainfall and flood events. □ Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: Vernal pools and palustrine emergent wetlands provide seasonal breeding and foraging habitat for amphibians and aquatic insects, and provide water and forage for mammals (e.g., foxes, coyotes, rodents). Subsurface flows through the vernal pool complex in the Review Area have lower temperatures than surface water and contribute to cooling downstream waters (e.g., Whetstone Creek), which is beneficial for salmonids and other fish. In addition, subsurface flows are not subject to evapotranspiration and this hydrologic input to

downstream waters can increase surface water levels and seasonal duration which has a positive impact on plants, fish, and wildlife in the watershed.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **11** Approximately (0.85) 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)
PEM A: Y	0.064		
PEM B: Y	0.214		
VP 1: N	< 0.001		
VP 2: N	0.025		
VP 3: N	< 0.001		
VP 4: N	0.190		
VP 5: N	0.002		
VP 6: N	0.285		
VP 7: N	0.030		
VP 8: N	0.006		
VP 9: N	0.032		

Summarize overall biological, chemical and physical functions being performed:

In a communication between the consultant and the USFWS, vernal pool fairy shrimp are considered to be present in all aquatic features in the Review Area, including Tributaries 1 and 2, vernal pool wetlands, and palustrine emergent wetlands (Schott & Associates, 2022). Vernal pool fairy shrimp migrate between aquatic features during high precipitation and flood events and have the ability to survive in a desiccated state in drylands for several consecutive years (USFWS 2011). Federally listed plants, such as Cook's lomatium (*Lomatium cookii*) and large flowered woolly meadowfoam (*Limnanthes floccosa ssp. grandiflora*) may also occur in the Review Area in vernal pools and on their flanks, and in palustrine emergent wetlands. The seeds of both species float and are transported via surface water between discrete wetland features during high rainfall and flood events.

The hydrological sources for vernal pools in the Review Area are precipitation and stormwater runoff. Whetstone Creek and its' confluence with the Rogue River receives significant wet season stormwater flow from the urbanized portions of the watershed in White City, including the Review Area (Rogue Valley Council of Governments, 2012). Stormwater runoff from the areas surrounding the Review Area is not treated prior to entering the Rogue River and influences the chemical composition of water through the discharge of pollutants from impervious surfaces, elevation of water temperature, and reduction in dissolved oxygen levels. Whetstone Creek and the Rogue River support the federally listed Southern Oregon/Northern California Coast Coho salmon and all of these factors impact this species' survival.

Vernal pools have several positive impacts on aquatic habitat function within and downstream of the Review Area. Vernal pools act as bioswales, taking up pollutants and filtering them out of the ecosystem before surface and subsurface water flows to Whetstone Creek and the Rogue River. Subsurface flows through the vernal pool complex in the Review Area have lower temperatures than surface water and contribute to cooling downstream waters, which is beneficial for salmonids and other fish. In addition, subsurface flows are not subject to evapotranspiration and this hydrologic input to downstream waters can increase surface water levels in the dry season and increase wet season duration which has a positive impact on plants, fish, and wildlife in the watershed. Further, vernal pools provide flood attenuation by capturing and storing water during the wet season.

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:
- **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:

Tributaries 1 and 2, and Offsite Tributaries 3 and 4 have a direct, downstream connection to the Rogue River which is a TNW. VP1-9 are physically connected to Tributaries 1 and 2, and Offsite Tributary 3 via subsurface flow above a clay hardpan layer between 8 and 20 inches in the soil profile.

Subsurface flows through the vernal pool complex in the Review Area have lower temperatures than surface water and contribute to cooling downstream waters, which is beneficial for salmonids and other fish. In addition, subsurface flows are not subject to evapotranspiration and this hydrologic input to downstream waters can increase surface water levels in the dry season and increase wet season duration which has a positive impact on plants, fish, and wildlife in the watershed. VP1-9 can further influence the chemical properties of downstream waters by functioning as bioswales, taking up pollutants from stormwater runoff and filtering them out of the aquatic ecosystem before surface and subsurface water flows to streams within and outside the Review Area.

VP1-9 maintain a biological connection to downstream waters through the movement of Federally listed species. Cook's lomatium, large flowered woolly meadowfoam, and vernal pool fairy shrimp may occur in the Review Area in vernal pools and their flanks, palustrine emergent wetlands, and tributaries. The seeds of both plant species float and are transported via surface water between discontinuous wetland features during high rainfall and flood events. Vernal pool fairy shrimp migrate between aquatic features during high precipitation and flood events and have the ability to survive in a desiccated state in drylands for several consecutive years (USFWS 2011). Based on the above information VP1-9 have more than a speculative and insubstantial nexus downstream to the Rogue River.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

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:

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: The hydrological sources for Tributaries 1 and 2 are precipitation and stormwater runoff. On average, the White City region receives rainfall on more than 96 days per year (Oregon State University 2022). Photographs of Tributary 1 provided as part of the wetland delineation survey show matted vegetation along the OHWM. The centerlines of Tributaries 1 and 2 lack vegetation and have a layer of biotic crust. Furthermore, these features have OHWMs that are defined by a topographic break in slope, and a change in vegetation and substrate. The Review Area is flat and as a result, water remains contained in these waterways well after rainfall events. All of these factors indicate that Tributaries 1 and 2 have surface water flow for three months or more on an annual basis.

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: In total, Tributary 1 and 2 930 linear feet6 width (ft). acres.

- Other non-wetland waters:
 - Identify type(s) of waters:
- 3. Non-RPWs⁸ 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.
 - Identify type(s) of waters:

Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. 4.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. \bowtie

- 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:
- Ketlands 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: PEM A and PEM B. Directly abut Tributary 1 and Tributary 2.

Provide acreage estimates for jurisdictional wetlands in the review area: **PEM A and PEM B = 0.28** acres.

Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. 5.

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. VP1-9 are determined to be adjacent wetlands. VP1-9 exhibit a shallow sub-surface water connection and have an ecological connection to RPW's through vernal pool fairy shrimp as documented above.

Provide acreage estimates for jurisdictional wetlands in the review area: VP1-9 = 0.57 acres.

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. 6.

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: 0.85 acres.

Impoundments of jurisdictional waters.9

- As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain:
- Other factors. Explain:

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ 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.

	Identify water body and summarize rationale supporting determination:
	 Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Vernal pool wetlands, palustrine emergent wetlands, and intermittent streams. Wetlands:0.85 acres.
F.	 NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: .
	 Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
<u>SE</u>	CTION IV: DATA SOURCES.
Α.	 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: Schott & Associates. 2020. Jurisdictional Wetland Delineation for Avenue E (2). 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: U.S. Geological Survey Hydrologic Atlas: USGS. May 2022. Portland District Regulatory Web Map Application. Online: http://depond.al.nvd.usace.army.mil/_USGS_lanuary.2022_8_HUC_Map.(17100308) and 12_HUC_Map.(171003080202)
	 Online: https://geoportat.inwd.usace.army.ini/. 0303. January 2022. 8 HOC Map (1/100308) and 12 HOC Map (1/1003080202). Online: https://water.usgs.gov/. USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: Topographic Maps: Ashland, 1893, 1:250k and Eagle Point, 2012, 1:24k. Online: https://ngmdb.usgs.gov/topoview/viewer/. USDA Natural Resources Conservation Service Soil Survey. Citation: Schott & Associates. 2020. Jurisdictional Wetland Delineation for Avenue E (2). Figure 4. National wetlands inventory map(s). Cite name: Schott & Associates. 2020. Jurisdictional Wetland Delineation for Avenue E (2). State/Local wetland inventory map(s): Portland District Regulatory Web Map Application.

Online:http://geoportal.nwd.usace.army.mil/.

FEMA/FIRM maps:

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 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
 Photographs: Aerial (Name & Date):Google Earth Pro (Software Version 7.3.3.7786). 2000-2021. Schott & Associates. 2020. Jurisdictional Wetland Delineation for Avenue E (2). Figures 5A and 5B.

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or Other (Name & Date):

Previous determination(s). File no. and date of response letter:

Applicable/supporting case law:

¹⁰⁰⁻year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

Applicable/supporting scientific literature:Rogue Valley Council of Governments, 2012. Whetstone Creek Restoration Plan for Improved Fish Passage, Water Quality, and Riparian Conditions.

Other information (please specify): Schott & Associates. 2022. Biological Assessment for Peregrine Estates, White City, Oregon. Rogue Valley Sewer Services. 2022. ArcGIS Web Viewer. Online:

https://jcgis.maps.arcgis.com/apps/webappviewer/index.html?id=f25b233391614be6bb05aa84b37963dd.

USFWS. 2011. Programmatic Formal Consultation on the U.S. Fish and Wildlife Service's Vernal Pool Conservation Strategy for Jackson County, Oregon (FWS Reference Number 13420-2011-F-0064). Oregon State University, 2022. PRISM Data Explorer. Online: https://www.prism.oregonstate.edu/explorer/.

B. ADDITIONAL COMMENTS TO SUPPORT JD: Coordination between the Corps and Environmental Protection Agency was completed on May 31, 2022.