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): December 17, 2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Portland District, NWP-2008-564, Jackson County Urban Renewal (White City Civic Center)

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. 42.4306834926765° **N**, Long. -122.832413600479° **W**.
Universal Transverse Mercator: 513785.127249243 X; 4697609.92295145 Y
Name of nearest waterbody: Whetstone Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Rogue River
Name of watershed or Hydrologic Unit Code (HUC): 17100308
☒ 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: December 10, 2008
☐ 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.**
   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: ~3500 linear feet: varies width (ft) and/or acres.
      Wetlands: ~2.2 acres.

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

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).
[3] 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 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: 19.6 **square miles**
Drainage area: 19.6 **square miles**
Average annual rainfall: 19 inches
Average annual snowfall: <5 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **1-2** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **1-2** 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: .

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

Identify flow route to TNW[5]: The flow direction is from the vernal pools to existing drainage along the western boundary Historically, overland flow occurred from the vernal pools towards a perennial stream, generally in a west-northwest direction.

Modern development has resulted in hydrologic alterations to accommodate first agriculture, currently urbanizing conditions. These land uses required ditching in an effort to drain vernal pool complexes for agriculture and relocation of waterways to enhance agricultural productivity. More recently, site alterations include piping channelized natural drainages and/or relocated natural streams for development and infrastructure.

The subject site currently drains west to ~1225 linear feet of a constructed roadside drainage (Drainage 2) that flows from north to south along the western margin of the site and likely replaced a natural stream. Water originating in the northern two thirds of the subject parcel flows to the west and is intercepted by Drainage 2. Drainage 2 flows south to a point approximately midway on the subject parcel where it turns and flows due west in a piped drainage towards Jackson School. Drainage 2A flows from south to north and discharges into Drainage 2 at the point where it turns to the west.

In addition, approximately 2275 linear feet of constructed drainage (Drainage 3) flows from east to west across the southern third of the subject parcel and then discharges into Drainage 2. The upstream portion of the east-west drainage extends offsite to the east, where it has been placed into a pipe (Corps No. NWP-2007-95).

In the southern third of the parcel, flows not intercepted by the east-west drainage flow unidirectionally, surficially and subsurface south into a roadside drainage (Drainage 1), likely a channelized stream, that flows to the southwest corner of the property and drains into a large grated opening. Flows into this piped drainage travel through slightly more than one mile to discharge into Whetstone Creek. Approximately 3600 linear feet of the formerly open drainage was placed into a pipe under Corps No. NWP-1997-403.

Tributary stream order, if known: First .

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

Tributary is: ☐ Natural

☒ Artificial (man-made). Explain: Drainage 3 appears to be an excavated channel across the subject property, which connects to a channelized and currently piped drainage at the western property boundary..

☒ Manipulated (man-altered). Explain: Drainages 2 and 2A may be a channelized, possibly relocated stream.

Tributary properties with respect to top of bank (estimate):

Average width: 10-20 feet

Average depth: 3-5 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: The entire site consists of Agate-Winlo complex loam, which is underlain by an extremely gravelly sandy loam..

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Generally stable.

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight**

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: Whetstone Creek is a perennial stream. The tributary drainages have seasonal flows occurring at least 3 months of the year..

Other information on duration and volume: Aerial photos and site visits by previous project managers to adjacent properties (NWP-2007-95/NWP-1997-403) support the seasonality determination of the drainages..

Surface flow is: **Discrete and confined.** Characteristics: The drainages, where they are not piped, have a defined bed and bank.

[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.

Subsurface flow: **Unknown**. Explain findings: Agate-Winlo complex soils are known to support vernal pools by presence of a duripan layer at 10-30 inches below ground surface. Flows in this soil layer are likely unidirectional surficially and subsurface, and westly toward the RPW.

☐ 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
- ☐ changes in the character of soil
- ☐ shelving
- ☐ vegetation matted down, bent, or absent
- ☐ leaf litter disturbed or washed away
- ☐ sediment deposition
- ☐ water staining
- ☒ other (list): The drainages are apparent in aerial photos.
- ☐ 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

☒ Discontinuous OHWM.[7] Explain:There appear to be unpermitted discharges of dredged and fill material assocaited with more recent (post-2000) activities on the subject property based on aerial photos and information in the submitted delineation. Portions of Drainage 3 may have been affected by alterations such as piping and the discharge of dredged and fill material.
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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: "Whetstone Creek flows 7.5 miles in the lower eastern side of the Bear Creek valley. On several maps, portions of the creek is labeled as a slough, rather than a stream. It is a slackwater stream in portions that receives a lot of surface and sub-surface natural drainage, and serves as a major function in stormwater filtration. It is also located in a flood plain, and floods more frequently than subwatersheds higher in the valley." (Bear Creek Watershed Assessment, Phase II, East Delta Subwatersheds)

Identify specific pollutants, if known: "Ground-disturbing activities such as subdivision development, road building, land clearing, and agricultural run-off has contributed sediment and turbidity to Whetstone Creek. Although not systematically measured, Whetstone Creek water quality conditions are known to exceed 303(d) criteria" (Bear Creek Watershed Assessment, Phase II, East Delta Subwatersheds).

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

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

☒ Wetland fringe. Characteristics: Adjacent and abutting wetlands comprise a vernal pool wetland complex.

☒ Habitat for:

☒ Federally Listed species. Explain findings: The ditches are located in the vernal pool complex, which consists of upland mound and vernal pool land features. Vernal pool complexes are known to support federally-listed vernal pool fairy shrimp, large flowered wooley meadow foam and Cooke's lomatium.

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

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: ~2.2 acres

Wetland type. Explain:vernal pool complex.

Wetland quality. Explain: "There are over 140 major wetlands in the Whetstone Creek subwatershed, as well as considerable potential to develop wetlands on private lands in the lower subwatershed. Multiple small riparian areas exist along stream channels." (Bear Creek Watershed Assessment, Phase II, East Delta Subwatersheds) The vernal pool complex on the

[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.
[7]Ibid.

subject property has been altered by construction of a drainage with the intent of draining the complex to facilitate agriculture. Other activities include unpermitted discharges of dredged and fill material. It appears the duripan layer remains intact and the imapcts are primarily surficial..

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Flow is toward the drainages. Vernal pools become inundated in response to rain events during the winter and early spring months. Inter-pool surface water connections exist during the winter months, especially following periods of heavy rainfall. Upland mounds interspersed among vernal pools are comprised of well-drained alluvial soils of the Agate-Winlo series. There is a duripan at a depth of approximately 5 to 6 inches below the bottom of vernal pools and 12 to 24 inches below adjacent upland mounds. According to Petersen (2006), "It is the duripan layer, 30 to 60 cm [12 to 24 inches] below the surface, which supports the seasonal perched water and the appearance of vernal pools on the surface between November and May when seasonal rainfall exceeds evapotranspiration." Precipitation patterns in the review area are characterized as "Mediterranean," with most rainfall falling from October to March. As the winter progresses, excess precipitation infiltrates to the depth of the duripan, then moves laterally and unidirectionally. Water levels in vernal pools rise in response to direct precipitation inputs and lateral flow through permeable uplands. Piezometer data collected for other vernal pools in the Agate Desert indicate that water levels fluctuate by up to (approximately) 2.5 feet in a given year, and that water level fluctuations vary from year to year (Petersen, 2006).

Pools in a given complex (i.e., sharing common soil, topography, and hydrology, and not separated by drainageways, ditches, or road cuts that could act as groundwater "drains") interact with a common perched aquifer. Based on conditions in the review area and research focused on similar systems in similar soils in California's Central Valley (Hanes and Stromberg, 1996; Rains et al., 2005), it is likely that lateral shallow groundwater flow provides groundwater inputs to both vernal pools and headwater swales and that some water discharges from vernal pools back into the lateral flow system. Generally, the top of the duripan layer occurs as a muted representation of topographic relief across a given landform, and therefore groundwater flows in the same general direction as surface water. Water flowing through a given uplsope-downslope hydraulic gradient likely flows from upslope pools to downslope pools in close proximity (i.e., separated by uplands over distances of less than 30 to 50 feet) over the course of the water year. At the scale of individual pools, the direction of groundwater inflow/outflow to/from pools and adjoining mounds varies seasonally in response to precipitation and evapotranspiration rates (Hanes and Stromberg, 1996).

Surface flow is**: Overland sheetflow**

Characteristics: Flows are toward the drainages and tend to follow the gently sloping landscape..

Subsurface flow: **Unknown**. Explain findings: Agate-Winlo complex soils are known to support vernal pools due to presence of a duripan layer at 15-30 inches below ground surface. Flows in this soil layer are likely unidirectional and westly toward the RPW.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: Characteristics of a vernal pool complex include upland mounds and wetland pools connected by seasonally inundated swales and overland flow pathways.

☒ Ecological connection. Explain: Federally-listed species common to vernal pools include wetland and upland species. These species are unique to vernal pools in southwestern Oregon and parts of California.

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **1-2** river miles from TNW.

Project waters are **1-2** 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: "On the Agate Desert, a cryptogamic crust functions as living mulch by retaining soil moisture and discouraging annual weed growth. Biological crusts can also reduce wind and water erosion, fix atmospheric nitrogen, and contribute to soil organic matter. All crustal species are capable of drying out and temporarily suspending respiration without negative effects, unlike vascular plants, but can become photosynthetically active again very quickly after wetting. Because they lack a waxy epidermis, crustal organisms also tend to leak nutrients into the surrounding soil upon wetting and drying. Both above-ground and below-ground biomass are significantly increased in the presence of crust material (Pendleton et al. 2004)." June 2006. Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems. Region 1 U.S. Fish and Wildlife Service, Portland, Oregon.

Identify specific pollutants, if known: : “Ground-disturbing activities such as subdivision development, road building, land clearing, and agricultural run-off has contributed sediment and turbidity to Whetstone Creek. Although not

systematically measured, Whetstone Creek water quality conditions are known to exceed 303(d) criteria" (Bear Creek Watershed Assessment, Phase II, East Delta Subwatersheds).

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

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

☒ Vegetation type/percent cover. Explain: "Occupying primarily within the inundated portions of vernal pools in the Rogue River Valley are commonly found unique soil communities often referred to as biological soil crusts, or cryptogamic, cryptobiotic, microbiotic, or microphytic soil crusts (Belnap et al. 2001). These communities of highly specialized autotrophic organisms occupy open spaces between higher plants in arid and semi-arid lands throughout the world. Biological soil crust communities are a complex mosaic of cyanobacteria, green algae, lichens, mosses, microfungi, and other bacteria. Cyanobacterial and microfungal filaments weave through the top few millimeters of soil, gluing loose particles together and forming a matrix that stabilizes and protects soil surfaces from erosive forces (Friedman and Ocampu-Paus 1976, Belnap and Gardner 1993). Although these crusts commonly occur, and may constitute up to 70 percent of the living cover in some plant communities (Belnap 1994), they have only recently been recognized as having a major influence on terrestrial systems. June 2006. Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems. Region 1 U.S. Fish and Wildlife Service, Portland, Oregon.

☐ Habitat for:

☒ Federally Listed species. Explain findings:Vernal pool fairy shrimp, large flowered wooley meadow foam, Cooke's lomatium are known to occupy vernal pool complexes.

☐ Fish/spawn areas. Explain findings: .

☒ Other environmentally-sensitive species. Explain findings: Southern Oregon buttercup (Ranunculus austrooreganus).

☐ Aquatic/wildlife diversity. Explain findings: .

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

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (3) 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)
vernal pool wetlands	~.6 acres	Y	
vernal pool wetlands	1.6 acres	N	

Summarize overall biological, chemical and physical functions being performed: "Vernal pools are an important link in the food chain for migrating waterfowl, shorebirds, birds of prey, frogs, toads, salamanders, pollinating insects, and a variety of invertebrates. Animals common to the Agate Desert vernal pool-mounded prairie complex include such species as Botta's pocket gopher (Thomomys bottae), black-tailed jackrabbit (Lepus californicus), western meadowlark (Sturnella neglecta), and red-winged blackbird (Agelaius phoeniceus). Vernal pools are a unique type of wetland ecosystem characterized by seasonal ponding during the winter and early spring. They are wet long enough to be different in character and species composition from the surrounding upland habitats, yet their prolonged annual dry phase prevents the establishment of species typical of more permanent wetlands. Unique animal and plant species have become specially adapted to the unusual ephemeral conditions existing in these vernal pool habitats. Associated with vernal pools are upland prairie mounds which support plant communities that cannot tolerate extended wet conditions and animals that depend on seasonal pools for forage, temporary shelter, spawning grounds, or water. Vernal pools are renowned for their showy displays of spring wildflowers which bloom in concentric rings around the drying pools". June 2006. Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems. Region 1 U.S. Fish and Wildlife Service, Portland, Oregon.

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: Subsurface water infiltrates the relatively permeable surface soil layers to the duripan layer where it moves laterally toward the tributaries following topographic lows. The duripan layer is generally 10-20 inches beneath the ground surface in wetlands and is about 20 to 30 inches below ground surface in the upland mound areas bordering the wetlands. Chemicals from a history of post-settlement agriculture are transported downstream to tributaries to Whetstone Creek, a 303(d) listed waterway. Modern urbanizing development contributes sediments and turbidity to Whetstone Creek and downstream to the TNW portion of the Rogue River. Stormwater runoff from new impervious surfaces likely contains a mixture of volatile organic carbons, heavy metals and other chemicals common to urban areas such as lawn fertilizers to Whetstone Creek and beyond to the Rogue River. The Rogue River becomes navigable, under Section 10 at Mile 27.1. .

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: Drainage 2 and Drainage 3 flow seasonally during the rainy winter and early spring. Both of the onsite drainages flow west into a channelized and sometimes piped stream that discharges into Whetstone Creek about one mile away. Whetstone Creek is tributary to the Rogue River, a TNW to Mile 157.5 at Lost Creek Dam, upstream of the project area. Whetstone Creek flows 7.5 miles in the lower eastern side of the Bear Creek valley and is part of the Bear Creek watershed. On several maps, portions of the creek is labeled as a slough, rather than a stream. It is a slackwater stream that receives a lot of surface and sub-surface natural drainage, and serves as a major function in stormwater filtration. It is also located in a flood plain, and floods more frequently than subwatersheds higher in the valley. .
   - ☐ 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: Drainages 2, 2A, and 3 flow seasonally during the rainy winter and early spring. Both of the onsite drainages flow west into a channelized and sometimes piped stream that discharges into Whetstone Creek about one mile away. .

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☒ Tributary waters: **3500** linear feet**10-20**width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.

[8]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: **Flow is toward the drainages. Vernal pools become inundated in response to rain events during the winter and early spring months. Inter-pool surface water connections exist during the winter months, especially following periods of heavy rainfall. Upland mounds interspersed among vernal pools are comprised of well-drained alluvial soils of the Agate-Winlo series. There is a duripan at a depth of approximately 5 to 6 inches below the bottom of vernal pools and 12 to 24 inches below adjacent upland mounds. As the winter progresses, excess precipitation infiltrates to the depth of the duripan, then moves laterally and unidirectionally. Water levels in vernal pools rise in response to direct precipitation inputs and lateral flow through permeable uplands. Piezometer data collected for other vernal pools in the Agate Desert indicate that water levels fluctuate by up to (approximately) 2.5 feet in a given year, and that water level fluctuations vary from year to year (Petersen, 2006). .**

   ☒ 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: See above.

   Provide acreage estimates for jurisdictional wetlands in the review area: **~0.6** 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: **~1.6** 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.[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: .

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: .

[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.*

☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .

☐ Other: (explain, if not covered above): .

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

☒ 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 NHD data.

☒ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:Eagle Point.

☒ USDA Natural Resources Conservation Service Soil Survey. Citation:WebSoilsurvey.

☐ National wetlands inventory map(s). Cite name: .

☐ State/Local wetland inventory map(s): .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date):24 July 2000.
or ☐ Other (Name & Date): .

☒ Previous determination(s). File no. and date of response letter: adjacent NWP-2007-95, NWP-1997-403, Agate Desert Vernal Pools JD NWP-2007-468 (ODOT) .

☐ Applicable/supporting case law: .

☒ Applicable/supporting scientific literature:

- Petersen, Richard, 2006. Environmental Characteristics of Vernal Pools on the Agate Desert, Jackson County, Oregon.Final Technical Report Submitted to U.S. Fish and Wildlife Service.
- Hanes, T. and L. Stromberg, 1996. Hydrology of Vernal Pools on Non-Volcanic Soils in the Sacramento Valley, in Ecology, Conservation, and Management of Vernal Pool Ecosystems, Proceedings from a 1996 Conference, published by the California Native Plant Society.

☒ Other information (please specify):

- Memo to File Record, Designation of the Rogue River (from river mile 27.1 to river mile 157.5) as a Traditional Navigable Water (TNW) for Purposes of Clean Water Act Jurisdiction , dated April 4, 2008
- June 2006. Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems. Region 1, Bear Creek Watershed Assessment, Phase II, East Delta Subwatersheds.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .