

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): Dec 22, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENWP-OD-GP, Port of Portland - Hillsboro Airport, NWP-2008-658/5

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Oregon County/parish/borough: Washington City: Hillsboro
Center coordinates of site (lat/long in degree decimal format): Lat. 45.54° **N**, Long. 122.95° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: Glencoe Swale to McKay Creek

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

Name of watershed or Hydrologic Unit Code (HUC): 170901100307 - Lower McKay Creek Watershed

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. A separate form details the Lower Rock Creek 170900100403 watershed.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: November 30, 2015

Field Determination. Date(s): Aug 8, 2015

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are and are not** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs - **Wetland A1**

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 - **Wetlands FH1, FH2, FH3**

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: linear feet: width (ft) and/or acres.

Wetlands: **FH1 (0.015 ac), FH2 (0.072 ac), FH3 (0.027 ac),**

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:

- **Wetland A2, A3, A4, R2, R3, and B3** were created through fill placement and grading to relocate water off of the runway and the creation of the stormwater runoff system for the airport and are located in the stormwater swale. These wetlands are seasonally saturated due to the water running off the airport runway and taxiways. The vegetation is managed to reduce

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.

wildlife attractants within airport property. Vegetation consists of mainly non-native FAC classified species. Boundaries were delineated using the slight concave form of the wetlands transitioning to flat uplands as well as change in vegetation. The adjacent upland soils lack hydrology indicators. Soils are mapped as urban lands within the study area, Amity silt loam surrounds the larger study area. The culvert inlets are set slightly above ground level due to the stormwater system design which causes water to saturate the soils before the water spills over into the drainage system. Waters from these wetland are conveyed into the stormwater system of the City of Hillsboro or the Hillsboro Airport.

- **Wetland R1** is an isolated onsite wetland. The wetland does not have a drainage pattern that would show flow reaches to the stormwater system. There is no evidence of a biological connection with a downstream TNW as the site is maintained to reduce onsite wildlife activity and keep vegetation to a minimum. Site is slightly concave allowing for pooling of water within the wetland area.

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: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

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

- Tributary flows directly into TNW.
- Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
 Project waters are **Pick List** river miles from RPW.
 Project waters are **Pick List** aerial (straight) miles from TNW.
 Project waters are **Pick List** aerial (straight) miles from RPW.
 Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:
 Tributary stream order, if known:

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

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

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

Average width: feet
 Average depth: feet
 Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

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

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

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

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List.** Characteristics:

Subsurface flow: **Pick List.** Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

<input type="checkbox"/> Bed and banks	
<input type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain:	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input checked="" type="checkbox"/> High Tide Line indicated by:	<input checked="" type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;

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.

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.

⁷Ibid.

- fine shell or debris deposits (foreshore)
- physical markings/characteristics
- tidal gauges
- other (list):
- 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:
 Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - 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 - Wetlands A1, FH1, FH2, FH3

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:
 Wetland size: 1.7 total acres
 Wetland type. PEM / MINSOILFLT Explain: Dominated by *Festuca arundinacea* and *Po spp.*
 Wetland quality. Poor Explain: Managed for vegetation and to keep it from being a wildlife attractant.
 Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: Wetlands are located within shallow depressions near to the drainage entries to the stormwater system. Wetlands would collect surface water before it overtops into stormwater system.

Surface flow is: **Overland sheetflow**

Characteristics: Wetlands would overflow into stormwater system, which leads to Glencoe Swale..

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

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.
 Project waters are **1 (or less)** aerial (straight) miles from TNW.
 Flow is from: **Wetland to navigable waters**.
 Estimate approximate location of wetland as within the **100 - 500-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: Water flows from nearby runway and taxiways into the wetland.
 Identify specific pollutants, if known: Herbicides would be present if they are sprayed into the field. Runway pollutants would also be carried in runoff to the wetland.

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: All contain *Festuca arundinacea* and *Po spp*
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - 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: **4**
Approximately (1.7) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Wetland FH1 / Y	(0.046)	FH 2 / Y	(0.072)
FH 3 / Y	(0.027)	Wetland 1 / Y	(1.61)

Summarize overall biological, chemical and physical functions being performed: These wetlands would provide detritus export, groundwater filtering and recharge, and assist in stormwater runoff and attenuation before water enters the stormwater system and is transported to Glencoe Swale. The wetlands are maintained to be unattractive to wildlife and are mowed. Non-native plants are present within the wetlands, but would contribute detritus and seeds to the runoff and downstream waters.

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:
 - **Wetlands FH1, FH2, FH3** would provide detritus export, groundwater filtering and recharge, and assist in stormwater runoff and attenuation before water enters the stormwater system and is transported to City of Hillsboro stormwater systems then outflows to Glencoe Swale. The wetlands are maintained to be unattractive to wildlife and are mowed. Non-native plants are present within the wetlands, but would contribute detritus and seeds to the runoff. They were not specifically created as part of the stormwater system.

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: .
- 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: .

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: .

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: .

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: **Wetland A is part of the Glencoe Swale system.**
 - 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: .

Provide acreage estimates for jurisdictional wetlands in the review area: **1.7**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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

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

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.,

Provide estimates for jurisdictional wetlands in the review area: **FH1 = 0.015, FH2 = 0.072, FH3 = 0.027** 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).

⁸See Footnote # 3.

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

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

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

Identify water body and summarize rationale supporting determination:

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters: .
- Wetlands: acres.

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

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. **Wetland R1**
 - 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): **Wetland A2, A3, A4, R2, R3, and B3 were constructed as part of the stormwater system.**

system.

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: **Wetland R1 (0.051 ac)**

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: Applicants report cited below.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: .
- USDA Natural Resources Conservation Service Soil Survey. Citation: Applicants report cited below.
- National wetlands inventory map(s). Cite name: .

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.

- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Applicants report cited below.
or Other (Name & Date):
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): *Hillsboro Airport Runway Rehabilitation and Helipad – Wetland Delineation Report*. Dated June 2015. Prepared by ESA Vigil-Agrimis.

B. ADDITIONAL COMMENTS TO SUPPORT JD: see below

Jurisdictional:

- Wetland A1 (1.61 ac) – Wetland is part of and adjacent to Glencoe Swale which flows to McKay Creek The wetland extends off-site to the northwest and southeast along the channelized swale. Reed canarygrass forms a monoculture along the channelized swale in the wetland. Primary wetland hydrology indicators include surface water, high water table, saturation, and oxidized rhizospheres along living roots. The main sources of hydrology are the channelized swale and groundwater. The channelized swale backs up at its outlet and impounds water that likely contributes to the hydrology of Wetland A1. Soils consist of silty clay and silty clay loam in the top 20 inches and met the depleted matrix and redox dark surfaces hydric soil indicators.
- FH1 (0.015 ac) - Vegetation for the site consists of managed grass field, dominated by *Festuca arundinacea*, which meets the dominance test. Soil indicator for the wetland was a depleted matrix. Hydrology indicators included high water table, and saturation.
- FH2 (0.072 ac) - Dominated by *Festuca arundinacea* and *Po spp.* which meet the vegetation dominance test, in a managed grass field. Hydric soil indicators include depleted matrix. Wetland hydrology indicators include surface water, high water table and saturation.
- FH3 (0.027 ac) - - Dominated by *Festuca arundinacea* and *Po spp.* which meet the vegetation dominance test. Vegetation is managed by mowing. Hydric soil indicators include depleted matrix. Wetland hydrology indicators include surface water and saturation.

Non-jurisdictional:

- Wetland R1 (0.051 ac) – Vegetation for the site consists of managed grass field, dominated by *Festuca arundinacea* and *Po spp.* which meet the vegetation dominance test. Hydric soil indicators include depleted matrix. Wetland hydrology indicators include surface water, high water table and saturation. The primary source of water is precipitation with some input from runoff from the surrounding runways, taxiways, and terrace. Wetland R1 is an isolated onsite wetland. The wetland does not have a drainage pattern that would show flow reaches to the stormwater system. There is no evidence of a biological connection with a downstream TNW as the site is maintained to reduce onsite wildlife activity and keep vegetation to a minimum. Site is slightly concave allowing for pooling of water within the wetland area.
- Wetland R2 (0.046 ac) – A stormwater swale. Water in this wetland flows north, enters a catch basin and pipes, and eventually outfalls to Glencoe Swale. Likely formed due to grading work which was completed to collect water from the runway and drain offsite. The swale was likely created from uplands. Dominated by *Festuca arundinacea* and *Po spp.* which meet the vegetation dominance test. Hydric soil indicators include depleted matrix. Wetland hydrology indicator includes saturation.
- Wetland R3 (1.904 ac) - A stormwater swale. Vegetation is managed by mowing. Water in this wetland flows north, enters a catch basin and pipes, and eventually outfalls to Glencoe Swale. Dominated by *Festuca arundinacea* and *Po spp.* which meet the vegetation dominance test. Hydric soil indicators include depleted matrix. Wetland hydrology indicator was saturation.
- Wetland A2 (0.285 ac) – A stormwater swale that was constructed to convey runoff from the runway and taxiway off of the site. Water is conveyed into the stormwater system which outflows into a drainage swale that flows into the Glencoe Swale system. Vegetation for the site consists of managed grass field, dominated by *Festuca arundinacea*, which meets the dominance test. Soil indicator for the wetland was a depleted matrix. Hydrology indicators included surface water, high water table, and saturation. The source of water is a combination of runoff from the surrounding runway and terrace, groundwater, and precipitation. The swale was likely created from uplands.
- Wetland A3 (0.076 ac) – Vegetation for the site consists of managed grass field, dominated by *Festuca arundinacea*, which meets the dominance test. Soil indicator for the wetland was a depleted matrix. Hydrology indicators included high water table, and saturation. The source of water is a combination of runoff from the surrounding runway and terrace, groundwater, and precipitation. The swale was likely created from uplands. Used to be part of A4 until taxiway exit was constructed. Formed by grading to collect stormwater from the runway and taxiway pavement and drains offsite. Wetland A3 drains to a catch basin that is at the southern end of the wetland, flows into a pipe, flows south, then east, and outflows into the City of Hillsboro stormwater system.
- Wetland A4 (0.384 ac) - A stormwater swale that was constructed to convey runoff from the runway and taxiway off of the site. Water is conveyed into the stormwater system which outflows into a drainage swale that flows into the

City of Hillsboro stormwater system. The swale was likely created from uplands. Vegetation is managed by mowing.

- Wetland B3 (0.052 ac) - This is a stormwater swale that was constructed to convey runoff off of the runway. Vegetation is managed by mowing. Dominant plant species include *Holcus lanatus*, *Poa spp.*, and *Festuca arundinacea*. Hydric soil indicators include a depleted matrix and the hydrology indicators include surface soil cracks, sparsely vegetated concave surface, and geomorphic position.