

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): 05 June 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Portland District, Port of Longview Industrial Rail Corridor Improvements AJD, NWP-2017-349.

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: **Washington** County/parish/borough: **Cowlitz** City: **Longview**
Center coordinates of site (lat/long in degree decimal format): Lat. **46.112726°**, Long. **-122.921929°**
Universal Transverse Mercator:

Name of nearest waterbody: **Log Pond**

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

Name of watershed or Hydrologic Unit Code (HUC): **Lower Columbia-Clatskanie 17080003**

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: 05 June 2018

Field Determination. Date(s): 20 November 2017 (date of site visit)

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:

The Log Pond has historically been used and is currently used for storage of logs that are utilized for interstate and/or foreign commerce. However, the Log Pond is not subject to the ebb and flow of the tide and has not been identified by the Portland District as a Section 10 or TNW; therefore it is not a Section 10 water.

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 waters² (RPWs) that flow directly or indirectly into TNWs.

Non-RPWs that flow directly or indirectly into TNWs **Log Pond is a non-RPW that flows directly or indirectly into TNWs. (Note: The Log Pond is a permanent surface water; however, non-RPW refers to the duration of flow.)**

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 **Wetland A, Wetland B, Wetland E, Wetland F are wetlands adjacent (abutting) 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: **Log Pond: N/A linear feet: N/A width (ft) and/or acreage. The total size of the Log Pond within the review area is 70.8 acres. The total size of the Log Pond is 108 acres. See Map 3.**

Wetlands: **Wetland A, Wetland B, Wetlands E, Wetland F (Wetlands B, E and F are a single contiguous wetland, but are labeled and mapped separately based on vegetation class). Note that in the Applicant's Wetland Delineation Report, Wetland B is mapped into two wetlands based on vegetation class (i.e., B1 and B2).**

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).

Non-Wetland Waters	Acreage	Center Coordinates
Log Pond	70.8 (acreage within the review area)	46.1119/ -122.9229

Wetland	Acreage	Center Coordinates
Wetland A	53.46	46.1111/-122.9206
Wetland B	5.31	46.1104/-122.9089
Wetland E	0.31	46.1105/-122.9105
Wetland F	0.71	46.1106/-122.9089

c. Limits (boundaries) of jurisdiction based on:

- OHWM: Log Pond.
- 1987 Delineation Manual: Wetland A, Wetland B, Wetland E, Wetland F.

Elevation of established OHWM (if known): The OHWM of the log pond is due to precipitation, stormwater inputs into the pond, inputs into the water table, and operation (or lack of operation) of the upstream lock gate. Wrack line and the transition of vegetation into open water are field observations of the OHWM. The OHWM elevation in the Log Pond is higher than the OHWM in the Lock Chamber. The OHWM elevation in the Lock Chamber is higher than the OHWM in the Old Mouth of the Cowlitz River. The OHWM elevation difference between the Log Pond and the Old Mouth of the Cowlitz River is approximately 3ft (Additional information provided by consultant, dated 11 January 2018).

Log Pond:

- The Log Pond is an open water feature; 8 to 12 feet deep with steep sides on the west, north, and east sides. Sources of hydrology is stormwater from adjacent uplands.
- Log Pond currently serves as a detention and infiltration basin for stormwater from adjacent uplands. Log Pond is privately used for log storage, water for dust control, and water for fire suppression by adjacent wood product business.
- The Log Pond is currently utilized for stormwater management; however, the Log Pond was constructed between 1921-1939 and not a waste treatment system “designed to meet the requirements of CWA” (33 C.F.R. § 328.3(a)(8)).
- Water in the Log Pond is infiltrated into the ground. High water levels in the log pond, if they occur, are moderated by outflows to groundwater table. (Additional Info provided by consultant, memo dated 11 January 2018)
- The Log Pond was constructed out of wetlands and uplands between 1921 and 1939. Oldest aerial map provided submitted by the applicant/consultant indicates that the lock was constructed by 1939. (1884 Land Survey, Department of the Interior; 1921 U.S. Army Tactical Map)
- The Log Pond is connected to the Old Mouth of the Cowlitz River (TNW), which flows into the Columbia River (TNW). The Log Pond is connected to the Old Mouth of the Cowlitz River via a log transport lock that is no longer used to transport logs. The locks were designed to control Log Pond water levels and to facilitate movement of log rafts into the Log Pond. Log rafts were floated from the Columbia River, into the Old Mouth of the Cowlitz River, moved into the lock and then moved into the Log Pond. Log rafts would be moved to various locations in the Log Pond by boat. Transport of logs into the Log Pond ended in the 1980's. In 2000-2001, an area between the upstream gate and the Log Pond was filled for a railroad line and two culverts were installed in the fill structure. This fill structure impedes the movement of logs into or out of the Log Pond through the locks; however, water flows through the culverts to the upstream gate of the lock (This work was authorized under USACE NWP File No. 1996-943).
- If the lock gates are opened, water would flow from the Log Pond through the locks into the Old Mouth of the Cowlitz River (TNW) and into the Columbia River (TNW).
- The downstream lock gate is operable as documented in the October 2010 and February 2017 Corps Levee Periodic Inspection Reports. The 2010 and 2017 reports document opening of the downstream lock gate. (U.S. Army Corps of Engineers 2010, 2017) The 2010 report documents that the downstream lock gate owner “indicated that the gates are operated annually” and that the gate was raised approximately 10 ft during the 2010 inspection. The 2016 report documents that the downstream lock gate was operable during the periodic inspection. The upstream lock gate is outside of the Corps levee safety program project right of way and was not tested for operability during the levee inspections.
- There are no other outlets for flow into either the Columbia River or the Cowlitz River. In 1991, the Log Pond owner installed a barrier at the end of the channel on the northern edge of the pond, which prevents water from being conveyed northwards to the Consolidated Diking Improvements District Ditch #3. The Log Pond is disconnected from the Finger Slough located along the south-western corner of the log pond. Flow from the Finger Slough is directed into 3 pipes constructed under Fibre Way road and into the Black Lagoon (a separate water body that is adjacent to the Log Pond). The Black Lagoon is separated from the Log Pond by a berm. In addition, the pipe between the Log Pond and the Black Lagoon has been capped. These actions allow stormwater to be detained and infiltrated in the Log Pond.

Wetland A (53.46 acres): Emergent wetland that lies along the southern edge of the Log Pond. Source of hydrology is the Log Pond and high ground water table. Wetland hydrology was documented in the wetland delineation report as areas of surface water, shallow water tables within 10 inches of the soil surface, or soil saturation to the surface. (Ecological Land Services, 2018) Vegetation is primarily dominated by reed canarygrass (*Phalaris arundinacea*, FACW), yellow flag iris (*Iris pseudacorus*, OBL), duck weed (*Lemna minor*, OBL) and soft rush (*Juncus effusus*, FACW). Additional species present along the transition of wetland to upland created by the train track embankment include red elderberry (*Sambucus racemosa*, FACU), Sitka willow (*Salix sitchensis*, FACW), field thistle (*Cirsium arvense*, FAC), cottonwood (*Populus balsamifera*, FAC), stinging nettle (*Urtica dioica*, FAC), and trailing blackberry (*Rubus ursinus*, FAC). Hydric soil field indicators include Depleted Matrix (F3) and Redox Dark Surface (F6).

Wetland B (5.31 acres): Forested and emergent, wetland that lies along the eastern edge of the Log Pond. Source of hydrology is the Log Pond, direct precipitation, and high ground water table. Wetland hydrology was documented in the wetland delineation report as areas of surface water, shallow water tables within 10 inches of the soil surface, or soil saturation to the surface. (Ecological Land Services, 2018) Wetland B’s forested system is dominated by cottonwood (*Populus balsamifera*, FAC), Nootka rose (*Rosa nutkana*, FAC), jewelweed (*Impatiens capensis*, FACW), soft rush, reed canarygrass, and creeping buttercup (*Ranunculus repens*, FAC), while the emergent habitat to the east is dominated by reed canarygrass. Hydric soil field indicators include Depleted Matrix (F3) and Redox Dark Surface (F6).

Wetland E (0.31 acres): Wetland E is along east edge of the Log Pond and is contiguous with Wetland B. Source of hydrology is the Log Pond. Dominant vegetation includes floating primrose-willow (*Ludwigia peploides*, OBL), and yellow iris (*Iris pseudacorus*, OBL).

Wetland F (0.71 acres): Wetland F is along the east edge of the Log Pond and is contiguous with Wetland B. Source of hydrology is the Log Pond. Dominant vegetation includes floating primrose-willow (*Ludwigia peploides*, OBL), and yellow iris (*Iris pseudacorus*, OBL).

The following waters are outside of the Review Area but have been identified for purposes of this review:

Lock Chamber (see Attachment 1, Lock Chamber and Gate Photographs):

- The Lock Chamber is outside of the Review Area but is identified here as providing a connection from the Log Pond to the Old Mouth of the Cowlitz River (TNW). The Lock Chamber is identified as Non-RPWs that flow directly or indirectly into TNWs.
- The lock chamber was excavated from uplands (Department of the Interior, 1884; US Army, 1921) The locks were designed to equalize water levels between the Log Pond, Lock Chamber, and to facilitate movement of log rafts from the river into the Log Pond. (Ecological Land Services, 2018)
- A lock gate is situated between the Log Pond and the Lock Chamber (upstream end of chamber, this gate is referred to as the upstream lock gate). A lock gate is situated between the Lock Chamber and the Old Mouth of the Cowlitz River (downstream end of chamber, this gate is referred to as the downstream lock gate).
- The lock gates are tainter-style gates. Concrete beams and the winch house are built over the gate and limits the height of what can be passed through.
- The Applicant’s Wetland Delineation Report (Ecological Land Services 2018) describes the lock gates as water-tight lock structures installed for water-level-control purposes. Report also states that the lock gates have not been used since the 1980s and that the lock gates are “currently opened only for emergencies; therefore, they are practically never opened”.
- Transport of logs into the Log Pond ended in the 1980’s.
- The construction of the railroad crossing and culverts (within the railroad crossing fill structure) in 2000-2001 prevents movement of logs from the lock chamber into the Log Pond.

Old Mouth of the Cowlitz River:

- This water body branches off of the Columbia River at river mile 67.5. Barges transit this water body.
- There is an 8 feet deep navigation channel within the Old Mouth of the Cowlitz River. The navigation channel within the Old Mouth of the Cowlitz River was authorized by Rivers and Harbors Act of March 2, 1945, as part of the overall U.S. Army Corps of Engineers Columbia and Lower Willamette Rivers Project

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.
Wetland C and Wetland D

Wetland	Acreage
Wetland C	0.004 (or 188 sq. ft.)
Wetland D	0.27

³ Supporting documentation is presented in Section III.F.

Explain:. Wetland C and Wetland D are located within depressions formed by fill and construction activities. Wetland C and Wetland D do not appear to receive flows from or drain into any other wetlands or waters.

Wetland C (0.004 acre): Emergent wetland located at the eastern end of the study area. Wetland C is located in a small depression in gravel filled fill pile. Source of hydrology is direct precipitation, overland flow from surrounding uplands, and high ground water table. Wetland hydrology was documented in the wetland delineation report as areas of surface water, shallow water tables within 10 inches of the soil surface, or soil saturation to the surface. (Ecological Land Services) Vegetation is predominately reed canarygrass. Hydric soil field indicators include Depleted Matrix (F3) and Redox Dark Surface (F6). Wetland does not appear to drain into any other wetlands or waters.

Wetland D (0.27 acre): Forested wetland located at the eastern end of the study area. Wetland D is located in a depression and bounded by a road/railyard to the northeast, the railroad berm to the south. The western boundary of the wetland is delineated along the edge of a large area of fill. Source of hydrology is direct precipitation, overland flow from surrounding uplands, and high ground water table. Wetland hydrology was documented in the wetland delineation report as areas of surface water, shallow water tables within 10 inches of the soil surface, or soil saturation to the surface. (Ecological Land Services, 2018) Dominant vegetation consisting of cottonwood, Sitka willow, and reed canarygrass. Hydric soil field indicators include Depleted Matrix (F3) and Redox Dark Surface (F6). Wetland does not appear to drain into any other wetlands or waters. The upland area between Wetland B and Wetland D is composed of fill material.

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: N/A

Summarize rationale supporting determination: N/A

2. Wetland adjacent to TNW N/A

Summarize rationale supporting conclusion that wetland is “adjacent”: N/A

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:

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

(i) **General Area Conditions:**

Watershed size: **Lower Columbia-Clatskanie (HUC 17080003)**
Drainage area: **600 square miles**
Average annual rainfall: **67 inches**
Average annual snowfall: **0 inches**

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **1** tributaries before entering TNW. **The Log Pond is the “tributary” in this evaluation.**

The Lock Chamber further serves a tributary and the connection to a TNW.

Project waters are **1 (or less)** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **1 (or less)** 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: **N/A.**

Identify flow route to TNW⁵: **If the lock gates were opened, water in the Log Pond would freely flow into the lock chamber, into the Old Mouth of the Cowlitz River (TNW) and then into the Columbia River (TNW).**

Tributary stream order, if known: **N/A.**

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

Tributary is:

Natural

Artificial (man-made). Explain: **Both the Log Pond and the lock chamber were constructed between 1921 and 1939.**

Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate): **The Log Pond is 108 acres (acreage of the entire Log Pond)**

Average width: **500 feet**

Average depth: **8-12 feet**

Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

Silts

Sands

Concrete

Cobbles

Gravel

Muck

Bedrock

Vegetation. Type/% cover:

Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Log Pond banks are stable.**

Presence of run/riffle/pool complexes. Explain: **N/A.**

Tributary geometry: **N/A**

Tributary gradient (approximate average slope): **N/A**

(c) Flow:

Tributary provides for: **The Log Pond is an open water body and contains water year round. The Log Pond is identified as a Non-RPW that flows directly or indirectly into TNWs (Log Pond would flow into the Lock Chamber if the upstream lock gate is opened). The Lock Chamber is an open water body and is identified as a Non-RPWs that flows directly or indirectly into TNWs (Old Mouth of the Cowlitz) when the downstream lock gate is open. If the lock gates were opened, water from the Log Pond would flow through the Lock Chamber into the Old Mouth of the Cowlitz River (TNW) and into the Columbia River (TNW).**

Estimate average number of flow events in review area/year: **The Log Pond contains water year round.**

Describe flow regime: **The OHWM in the Log Pond is higher than the OHWM in the Lock Chamber. The OHWM in the Lock Chamber is higher than the OHWM in the Old Mouth of the Cowlitz River. The elevation difference between the Log Pond and the Old Mouth of the Cowlitz River is approximately 3ft (Additional Info provided by consultant, dated 11 January 2018). If the upstream gate is opened, water would flow from the Log Pond into the Lock Chamber. When the downstream lock gate is opened, water flows into the Old Mouth of the Cowlitz River and into the Columbia River. The incorporation of two culverts into the fill structure for the railroad line (constructed in 2000-2001) preserved the exchange of water within the main portion of the log pond and the portion of the log pond situated between the railroad fill structure and the upstream lock gate.**

Other information on duration and volume: **The Log Pond and Lock Chamber contains water year round.**

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.

Surface flow is: **Discrete and confined.**

Characteristics: **The Log Pond and Lock Chamber contains water year round.**

Subsurface flow: **Unknown** Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks

OHWM⁶ (check all indicators that apply):

clear, natural line impressed on the bank

changes in the character of soil

shelving

vegetation matted down, bent, or absent

leaf litter disturbed or washed away

sediment deposition

water staining

the presence of litter and debris

destruction of terrestrial vegetation

the presence of wrack line

sediment sorting

scour

multiple observed or predicted flow events

abrupt change in plant community **Log Pond is man-made feature with steep banks there is a sharp transition from vegetation/banks to open water and there is a wrack line.**

other (list):

Discontinuous OHWM.⁷ Explain:

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

High Tide Line indicated by:

oil or scum line along shore objects

fine shell or debris deposits (foreshore)

physical markings/characteristics

tidal gauges

other (list):

Mean High Water Mark indicated by:

survey to available datum;

physical markings;

vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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

Explain: **Log Pond currently serves as detention and infiltration basin for stormwater from adjacent uplands, portions of this upland area is zoned heavy industrial.**

Identify specific pollutants, if known: **Oil, sediment and debris from stormwater flows from roads; treated stormwater from surrounding upland commercial facilities; woody detritus from floating logs.**

(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: **Log Pond serves as habitat for bird, aquatic invertebrates.**

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW: Wetland A, Wetland B, Wetland E, Wetland F

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: **59.79 acres Wetland A, Wetland B, Wetland E, Wetland F**

Wetland type. Explain: **Wetland A, Wetland B, Wetland E and Wetland F are along the fringe of the Log Pond.**

Wetland A: lake fringe (HGM Class); Wetland B: lake fringe (HGM Class); Wetland E: lake fringe (HGM Class); Wetland F: lake fringe (HGM Class). (Washington State Wetland Rating System Forms included in wetland delineation report [Ecological Land Services, 2018])

Wetland quality. Explain: **Wetland A is rated as a Category IV Wetland (lowest level function, per the Washington State Wetland Rating System for Western Washington), the predominant vegetation of Wetland A is invasive species including reed canarygrass and yellow flag iris. Wetland B is rated as a Category III (moderate level of function); the predominant vegetation of the forested portion of Wetland B is cottonwood (*Populus balsamifera*, FAC), Nootka rose (*Rosa nutkana*, FAC). The predominant vegetation of the emergent portion of Wetland B is reed canarygrass. Wetland E is rated as a**

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.

Category IV Wetland (lowest level function. Wetland F is rated as a Category IV Wetland (lowest level function). Wetlands E and F are emergent wetlands dominated by floating primrose-willow (*Ludwigia peploides*, OBL) which is on the State of Washington noxious weed list, and yellow iris (*Iris pseudacorus*, OBL). Washington State Wetland Rating System Forms included in wetland delineation report [Ecological Land Services, 2018]) Wetland A, Wetland B, Wetland E and Wetland F are along the fringe of the Log Pond. Wetland A, B, E, and F generally provide low hydrologic function. Wetland A, B, E, F generally provide moderate water quality functions. Wetland A, B, E, and F are not accessible to the public and provide relatively undisturbed habitat for wildlife.

Project wetlands cross or serve as state boundaries. Explain: No.

Wetland	Acreage	Center Coordinates
Wetland A	53.46	46.1111/-122.9206
Wetland B	5.31	46.1104/-122.9089
Wetland E	0.31	46.1105/-122.9105
Wetland F	0.71	46.1106/-122.9089

(b) General Flow Relationship with Non-TNW:

Flow is: **Year Round Flow**. Explain: **Wetland A, Wetland B, Wetland E, and Wetland F flow into the Log Pond. The Log Pond contains water year round. If the lock gates are opened, water would flow from the Log Pond, through the Lock Chamber and into the Old Mouth of the Cowlitz River and into the Columbia River.**

Surface flow is: **Overland Sheetflow**

Characteristics: **Overland flow from Wetland A, Wetland B, Wetland E, and Wetland F drains into the Log Pond which would flow into the Lock Chamber which would flow into the Old Mouth of the Cowlitz River and into the Columbia River if the lock gates are opened.**

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

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting **Wetland A, Wetland B, Wetland E, and Wetland F**

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **1 or less** 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 **50-100 year** floodplain.

(ii) **Chemical Characteristics: N/A**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **Wetland A and B, E and F are along the fringe of the Log Pond; overland flows from the wetlands flows into the Log Pond.**

Identify specific pollutants, if known: **Oil, sediment and debris from stormwater flows from roads; treated stormwater from surrounding upland commercial facilities; woody detritus from floating logs.**

(iii) **Biological Characteristics. Wetland supports (check all that apply): N/A**

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: **Wetland A is 100% vegetated. The predominant vegetation of Wetland A is invasive species including reed canarygrass and yellow flag iris. Wetland B is 100% vegetated. The predominant vegetation of the forested portion of Wetland B is cottonwood (*Populus balsamifera*, FAC), Nootka rose (*Rosa nutkana*, FAC). The predominant vegetation of the emergent portion of Wetland B is reed canarygrass. Wetland E and F are 100% vegetated. Dominate vegetation of Wetland E and F includes floating primrose-willow (*Ludwigia peploides*, OBL), and yellow iris (*Iris pseudacorus*, OBL).**

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: **Wetland A and B serves as habitat for bird, small mammals, amphibians and invertebrates. Wetland E and Wetland F serve as habitat for birds and aquatic invertebrates.**

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

All wetland(s) being considered in the cumulative analysis: **Wetland A, Wetland B, Wetland E and Wetland F.**

Approximately (**59.79**) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Wetland	Directly abuts? (Y/N)	Size (in acres)
Wetland A	Y	53.46
Wetland B	Y	5.31
Wetland E	Y	0.31
Wetland F	Y	0.71

Summarize overall biological, chemical and physical functions being performed: see Section C below for summary

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: N/A
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: **A significant nexus is present between the Log Pond, Wetland A, Wetland B, Wetland E and Wetland F; and the Old Mouth of the Cowlitz River (TNW) and Columbia River (TNW).**

The Log Pond, Wetland A, Wetland B, Wetland E and Wetland F have physical connections to a TNW. Wetland A, Wetland B, Wetland E and Wetland F flows into the Log Pond. If the lock chamber gates are open, water from the Log Pond would flow into the Lock Chamber and then into the Old Mouth of the Cowlitz River (TNW) and then into the Columbia River (TNW).

Wetland A, Wetland B, Wetland E, Wetland F, and Log Pond provide water quality functions such as groundwater filtering and recharge, and assist with surface flow runoff and attenuation before flows enters the Old Mouth of the Cowlitz River (TNW) and then into the Columbia River (TNW).

Water flowing from Wetland A, Wetland B, Wetland E, Wetland F, and the Log Pond, has the capacity to transport pollutants to a TNW if the lock chamber gates are open. Log Pond currently serves as detention and infiltration basin for stormwater from adjacent uplands. Source of hydrology of Log Pond, Wetland A, Wetland B, Wetland E, and Wetland F is overland flow from uplands. This overland flow carries pollutants such as oil, sediment and debris from stormwater flows from roads; treated stormwater from surrounding upland commercial facilities. These pollutants are transported in the Log Pond water, which would flow into the Lock Chamber if the upstream gate lock gate is opened and then into the Old Mouth of the Cowlitz River (TNW) and then into the Columbia River (TNW) if the downstream gate lock is opened.

Water flowing from Wetland A, Wetland B, Wetland E, Wetland F, and the Log Pond, supports the biological activities of a TNW. The Log Pond, in combination with Wetland A, Wetland B, Wetland E, and Wetland F, contain plants, aquatic invertebrates, and microorganisms that have the capacity to transfer nutrients and organic carbon to support downstream foodwebs in the Old Mouth of the Cowlitz River (TNW) and the Columbia River (TNW). The Log Pond, Wetland A, Wetland B, Wetland E and Wetland F are not accessible to the public and serve as relatively undisturbed

habitat for birds, aquatic invertebrates, and microorganisms that are present in the Old Mouth of the Cowlitz River and Columbia River.

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: N/A

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: N/A

- 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:

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. **Log Pond is a Non-RPW that flows directly or indirectly into a TNW. Log Pond is currently operated as a detention basin for stormwater. Source of hydrology is stormwater discharge from surrounding uplands, direct precipitation, and high ground water table. If the lock gates are opened, water from Log Pond would flow through the lock into the Old Mouth of the Cowlitz River and into the Columbia River. The presence of the lock gates and the operation (or lack of operation) does not sever the significant nexus of the Log Pond to the Old Mouth of the Cowlitz River and into the Columbia River.**

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

- Tributary waters: linear feet width (ft).

- Other non-wetland waters: **70.8 acres (acreage within the review area). The acreage of the entire Log Pond is 108**

acres.

Identify type(s) of waters: **Log Pond.**

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:
 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: 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.

⁸See Footnote # 3.

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. **Wetland A, Wetland B, Wetland E, Wetland F are along the fringe of the Log Pond; overland flows from Wetland A, Wetland B, Wetland E, and Wetland F flow directly into the Log Pond.**

Provide estimates for jurisdictional wetlands in the review area: **59.79** 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: .
- 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). **Wetland C and D are not adjacent to the Log Pond. Wetland C and D are in proximity to other wetlands which are themselves wetlands (i.e. Wetland B). Wetland C and D were not used in past or currently used in interstate or foreign commerce. Wetland C and Wetland D are not susceptible for use in interstate or foreign commerce. Wetland C and D are in an industrial area not accessible to the public and not used for recreational purposes.**
 - Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: **Wetland C is located in a depression and is separated from Wetland B by the raised topography of a gravel fill pile located between Wetland C and Wetland B, which hinders the flow of water from Wetland C to Wetland B.**
Wetland D is located in a depression and bounded by a road/rail yard to the northeast, the railroad berm to the south, and a gravel fill pile to the west. This fill pile delineates the western boundary of Wetland D, and hinders the flow of water from Wetland D to Wetland B.
A large gravel mound covered with vegetation was observed between Wetlands D and C. This gravel pile was used as a field indicator to delineate the uplands that separate Wetlands D and C.
- 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: **0.28 acre.**

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.

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: **0.28 acre.**

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: **Maps included in delineation report. (Ecological Land Services, 2018)**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant. **Data sheets included in delineation report. (Ecological Land Services, 2018)**
 - 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: **1953 USGS Topographic Map, Port of Longview Area (Ecological Land Services, 2018); 1970 USGS Topographic Map, Port of Longview Area (Ecological Land Services, 2018).**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **Soil Survey Map, Accessed 04 October 2017, <http://websoilsurvey.nrcs.usda.gov/app/>. (Ecological Land Services, 2018)**
- National wetlands inventory map(s). Cite name: **National Wetlands Inventory Map, Accessed 04 October 2017, <http://www.fws.gov/wetlands/data/index.html>. (Ecological Land Services, 2018)**
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: **FEMA Floodplain Map, Accessed 04 October 2017, <http://fema.maps.arcgis.com/home/webmap/viewer.htm> (Ecological Land Services, 2018)**
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **1939 Aerial Photograph with Current IRC Location (Ecological Land Services, 2018); 1944 Aerial Photo (Ecological Land Services, 2018), U.S. Army; 1971 Aerial Photo (Ecological Land Services, 2018);**
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):

Applicant provided:

- **Wetland Delineation Report: Ecological Land Services. *Wetland Delineation Report and Jurisdictional Analysis for Industrial Rail Corridor Improvements, Port of Longview, City of Longview and Cowlitz County, Washington.* 13 February 2018**
- **Additional Information provided by Ecological Land Services: Memo dated 11 January 2018.**
- **Ecological Land Services letter, dated 12 April 2018, addressing discrepancy between Applicant Wetland Delineation Report and July 2012 City of Longview Shorelines Analysis Report and September 2014 Shoreline Analysis Report Addendum (see section B. below for additional discussion).**

Historic Maps:

- **1884 Land Survey Department of the Interior (Ecological Land Services, 2018)**
- **Department of the Interior; 1921 U.S. Army Tactical Map (Ecological Land Services, 2018).**

Levee District Map:

- **Consolidated Diking Improvement District No.1 Facilities Map, Accessed <http://cdid1.org/facilities/default.html> on 20180416.**

USACE Levee, Drainage Structures, and Pump Stations Inspection Report:

- **US Army Corps of Engineers, Portland District, *Cowlitz County Consolidated Diking Improvement District No. 1, Flood Damage Reduction Project; Columbia River and Cowlitz River, Longview, Washington; Levee, Drainage Structures and Pump Stations Periodic Inspection No.1; Date of Inspection: April 5 through April 8, 2010.* October 2010.**
- **US Army Corps of Engineers, Portland District. *Period Inspection Report (2016) Cowlitz CDID1 Flood Damage Reduction System, Longview, Washington; Levee, Drainage Structures, and Pump Stations.* 28 February 2017.**

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Hydrologic Connection Discussion:

There is a discrepancy between wetland delineation report (Ecological Land Services, 2018) and July 2012 City of Longview Shorelines Analysis Report and September 2014 Shoreline Analysis Report Addendum regarding the hydrologic connection of the Log Pond to the Columbia River. The 2012 Shoreline Analysis Report (Section 4.5.6 Reach 6-Log Bell Log Pond) describes the hydrologic function of the log pond as: “The pond provides a fairly stable source or water and sediment storage, as water levels are artificially manipulated to maintain a narrow range of low and high levels by outflows to the Columbia River during seasonal fluctuations of precipitation and groundwater.” The 2014 Addendum to the Shoreline Analysis Report (Section 4.5.2.1 – Side Channel Inlet/Backwater of the Columbia River at Outlet of Long Bell Log Pond) also describes the water levels within the log pond as being artificially manipulated and that outflows are released to the Columbia River. The 2018 wetland delineation report does not reference the artificial manipulation of water levels in the Log Pond and outflows to the Columbia River.

In a letter dated 12 April 2018, the Applicant’s consultant clarified that the City of Longview Shoreline Report incorrectly described the hydrologic connection between the Log Pond and the Columbia River. According to the consultant, the Log Pond is not artificially manipulated and there are no outflows to the Columbia River because the locks are permanently closed. This error was identified in 2012 but the Shoreline Reports were not corrected.

The Corps evaluated these discrepancies. The Corps utilized the description of the hydrologic connection of the Log Pond described in the 2018 wetland delineation report as the baseline condition for this AJD.

Corps evaluation of information provided in the wetland delineation report (Ecological Land Services, 2018) regarding Corps jurisdiction of the Log Pond:

The Corps evaluated the following issues:

- The wetland delineation report states that the Log Pond “is hydrologically isolated from the Columbia River by the closed locks”. (Ecological Land Services, 2018 [Photoplate 3])
Corps Response: See AJD Form Section III.B.1 Characteristics of non-TNWs that flow directly or indirectly into TNW, and Section III.C.2 Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. The wetland delineation report states Log Pond is a located in an industrial area; therefore the Log Pond may not be jurisdictional.
Corps Response: The zoning of the area where the Log Pond is located does not have any bearing on the jurisdictional determination.
- The Log Pond is recognized by the Washington Department of Ecology (Ecology) as a stormwater facility; therefore the Log Pond may not be jurisdictional.
Corps Response: The Washington Department of Ecology’s classification of the Log Pond does not have any bearing on the jurisdictional determination and is not determinative of whether the Log Pond is a “waste treatment system” excluded from jurisdiction under 33 C.F.R. § 328.3(a)(8) since there is no information to suggest that it was “designed to meet the requirements of CWA”.
- The new City of Longview and Cowlitz County Shoreline Management Programs do not show the Log Pond as a shoreline lake. Ecology has made the determination that it is not a Shoreline of the State or a Water of the State; therefore the Log Pond may not be jurisdictional.
Corps Response: The City of Longview, Cowlitz County, or the Ecology’s classification of the Log Pond does not have any bearing on the jurisdictional determination.
- Washington Department of Natural Resource Stream Typing Maps shows that the Log Pond is classified as a water that is not under state jurisdiction; therefore the Log Pond may not be jurisdictional.
Corps Response: The Washington Department of Natural Resource’s classification of the Log Pond does not have any bearing on the jurisdictional determination.
- The Washington Department of Fish and Wildlife stated in a letter that no Hydraulic Project Application was required for placing fill in the Log Pond for the Port of Longview’s proposed rail corridor built in 2000-2001; therefore the Log Pond may not be jurisdictional.
Corps Response: The Washington Department of Fish and Wildlife’s requirement for a Hydraulic Project Permit does not have any bearing on the jurisdictional determination.
- The Washington Department of Fish and Wildlife online map, SalmonScape, shows that there is no anadromous fish passage through the locks from the Columbia River; therefore the Log Pond may not be jurisdictional.
Corps Response: The presence of fish passage is a consideration of the biological characteristics of a water body but it is not the sole criteria used for determining jurisdiction.