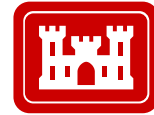




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Regulatory Program



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

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

SECTION I: BACKGROUND INFORMATION

A. COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (AJD): 21 December 2018

B. ORM NUMBER IN APPROPRIATE FORMAT (e.g., HQ-2015-00001-SMJ): NWP-2018-462

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Oregon County/parish/borough: Marion City: Keizer

Center coordinates of site (lat/long in degree decimal format): Lat. 45.0210, Long. -123.0495.

Map(s)/diagram(s) of review area (including map identifying single point of entry (SPOE) watershed and/or potential jurisdictional areas where applicable) is/are: attached in report/map titled .

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

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office (Desk) Determination Only. Date: 3 December 2018.

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

SECTION II: DATA SOURCES

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

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant. Title/Date: Wetland Determination and Delineation Report for the Northstar DEQ Disposal Site Marion County, Oregon; Prepared by Zion Natural Resources Consulting; April 2018 (Delineation) .

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

Data sheets/delineation report are sufficient for purposes of AJD form. Title/Date: Delineation, April 2018.

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

Revised Title/Date: .

Data sheets prepared by the Corps. Title/Date: .

Corps navigable waters study. Title/Date: .

CorpsMap ORM map layers. Title/Date: Referenced below, ORM JD Viewer accessed December 2018.

USGS Hydrologic Atlas. Title/Date: ORM accessed December 2018 .

USGS, NHD, or WBD data/maps. Title/Date: ORM accessed December 2018.

USGS 8, 10 and/or 12 digit HUC maps. HUC number: 170900070303.

USGS maps. Scale & quad name and date: 1:24K, Mission Bottom.

USDA NRCS Soil Survey. Citation: ORM accessed December 2018. Provided as Figure 4 in Delineation.

USFWS National Wetlands Inventory maps. Citation: ORM accessed December 2018. Provided as Figure 3 in Delineation.

State/Local wetland inventory maps. Citation: Oregon Wetlands data accessed through SFAM and ORWAP Map Viewer, December 2018.

FEMA/FIRM maps. Citation: Map No. 41047C0193G.

Photographs: Aerial. Citation: Provided as Figures 1, 2, 5, and 6 in the Delineation. or Other. Citation: Provided as Appendix D: Site Photographs in the Delineation.

LIDAR data/maps. Citation: .

- Previous JDs. File no. and date of JD letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

SECTION III: SUMMARY OF FINDINGS

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

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

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

- **Complete Table 1 - Required**

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

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

- (a)(1): All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. (Traditional Navigable Waters (TNWs))
 - **Complete Table 1 - Required**
 - This AJD includes a case-specific (a)(1) TNW (Section 404 navigable-in-fact) determination on a water that has not previously been designated as such. Documentation required for this case-specific (a)(1) TNW determination is attached.
- (a)(2): All interstate waters, including interstate wetlands.
 - **Complete Table 2 - Required**
- (a)(3): The territorial seas.
 - **Complete Table 3 - Required**
- (a)(4): All impoundments of waters otherwise identified as waters of the U.S. under 33 CFR part 328.3.
 - **Complete Table 4 - Required**
- (a)(5): All tributaries, as defined in 33 CFR part 328.3, of waters identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
 - **Complete Table 5 - Required**
- (a)(6): All waters adjacent to a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.
 - **Complete Table 6 - Required**
 - Bordering/Contiguous.
Neighboring:
 - (c)(2)(i): All waters located within 100 feet of the ordinary high water mark (OHWM) of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3.
 - (c)(2)(ii): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 and not more than 1,500 feet of the OHWM of such water.
 - (c)(2)(iii): All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of 33 CFR part 328.3, and all waters within 1,500 feet of the OHWM of the Great Lakes.
- (a)(7): All waters identified in 33 CFR 328.3(a)(7)(i)-(v) where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.
 - **Complete Table 7 for the significant nexus determination. Attach a map delineating the SPOE watershed boundary with (a)(7) waters identified in the similarly situated analysis. - Required**
 - Includes water(s) that are geographically and physically adjacent per (a)(6), but are being used for established, normal farming, silviculture, and ranching activities (33 USC Section 1344(f)(1)) and therefore are not adjacent and require a case-specific significant nexus determination.
- (a)(8): All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3 not covered by (c)(2)(ii) above and all waters located within 4,000 feet of the high tide line or OHWM of a water identified in paragraphs (a)(1)-(a)(5) of 33 CFR part 328.3 where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

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

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

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

Check all that apply.

- The review area is comprised entirely of dry land.
- Potential-(a)(7) Waters: Waters that DO NOT have a significant nexus to a water identified in paragraphs (a)(1)-(a)(3) of 33 CFR part 328.3.

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

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

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

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

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

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

- **Complete Table 10 - Required**

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

(b)(2): Prior converted cropland.

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

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

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

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

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

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

(b)(4)(iv): Small ornamental waters created in dry land.¹

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

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

(b)(4)(vii): Puddles.¹

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

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

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

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

- **Complete Table 11 - Required.**

D. ADDITIONAL COMMENTS TO SUPPORT AJD: The review area is located on 23.66 acres at located east of Windsor Island Road North and north of Naples Street North near Keizer, Marion County, Oregon. A field visit was conducted by the consultant on 9 February 2018.

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

Wetlands A through D formed naturally in mining pits after the pits were abandoned. The mining operation likely ceased around 1985.

Wetland A is classified as a palustrine emergent depressional wetland and totals approximately 4.81 acres. Dominant wetland vegetation includes *Phalaris arundinacea* (FACW). Hydrology to the site is primarily from precipitation and groundwater. Soils consist of Cloquato silt loam and Newberg fine sandy loam, neither of which are hydric. The NWI maps a large portion of the site as palustrine, aquatic bed, permanently flooded, impounded. Wetland A is approximately 3,674 feet from Clear Lake / Claggett Creek (a)(5) which flows into the Willamette River (a)(1). Wetland A is approximately 1.14 miles from the Willamette River and within its 100 year floodplain.

Wetland B is classified as palustrine emergent depressional wetlands and totals approximately 0.04 acres. Dominant wetland vegetation includes *Salix lasiandra* (FACW). Hydrology to the site is primarily from precipitation and groundwater. Soils are primarily mapped as "pits", which is not hydric. Neither the NWI nor the NHD map waters on site. Wetland B is approximately 3,667 feet from Clear Lake / Claggett Creek (a)(5) which flows into the Willamette River (a)(1). Wetland B is approximately 1.21 miles from the Willamette River and within its 100 year floodplain.

Wetland C is classified as palustrine emergent depressional wetlands and totals approximately 0.23 acres. Dominant wetland vegetation includes *Rubus armeniacus* (FAC), *Phalaris arundinacea* (FACW), and *Rumex crispus* (FAC). Hydrology to the site is primarily from precipitation and groundwater. Soils are primarily mapped as "pits" and Cloquato silt loam, neither of which are hydric. Neither the NWI nor the NHD map waters on site. Wetland C is approximately 3,462 feet from Clear Lake / Claggett Creek (a)(5) which flows into the Willamette River (a)(1). Wetland C is approximately 1.20 miles from the Willamette River and within its 100 year floodplain.

Wetland D is classified as palustrine emergent depressional wetlands and totals approximately 0.75 acres. Dominant wetland vegetation includes *Agrostis capillaris* (FAC) and *Dipsacus fullonum* (FAC). Hydrology to the site is primarily from precipitation and groundwater. Soils are mapped as Newberg silt loam, which is not hydric. Neither the NWI nor the NHD map waters on site. Wetland D is approximately 3,429 feet from Clear Lake / Claggett Creek (a)(5) which flows into the Willamette River (a)(1). Wetland D approximately 1.18 miles from the Willamette River; however, it is not within its 100 year floodplain.

The SPOE Watershed (SPOE A) encompasses approximately 15,172 acres and is a mix of 30% agricultural land use to the north (lower third of the watershed) and 60% development to the south which contains a portion of the city of Salem.

Two SVL boundaries were identified due to two vegetation classes, forest and woodland and agricultural vegetation. Wetlands A and D are partially vegetation class forest and woodland and partially agricultural vegetation. Wetlands B and C are forest and woodland vegetation. Within the review area soils drainage class and landforms were primarily contiguous for all four wetlands. Outside of the review area but within the SPOE there were other palustrine wetlands identified on the NWI but they were not within the contiguous vegetation classes and therefore not considered similarly situated. Additionally, there were no emergent wetlands within 4,000 feet of the Willamette River (a)(1) within SPOE A.

A significant nexus determination was conducted for the cumulative effects of Wetlands A – D on the chemical, physical, and biological integrity of the downstream (a)(1) water, the Willamette River.

Sediment trapping: Wetlands A - D trap sediment delivered by overland flow. However, Wetlands A – D are far enough removed from the nearest channel that sediment trapping likely does not significantly inhibit or support natural sediment supply to the downstream Willamette River.

Nutrient Recycling: During mining activities the top soil is removed inhibiting the nutrient cycling and microbial assemblages. The inhibited soil succession of the abandoned mining areas into wetlands (Wetlands A – D) results in the lack of high functioning nutrient cycling associated with wetlands.

Export of organic matter: After mining stopped, the mining areas lacked the appropriate nutrient cycling or microbial assemblages, resulting in an accumulation of organic matter. This accumulation likely lead to an increase in water holding as the soils within the review area and surrounding soils are mapped as well draining. Wetlands A – D likely do not significantly export organic matter to downstream waters.

Pollutant trapping, transformation, filtering, and transport: Wetlands A – D likely trap, transform, and filter pollutants from overland flow during heavy storm events of the nearby agricultural lands. However, Wetlands A – D do not have a direct surface connection to downstream waters. Water within the wetlands generally evaporates or percolates to leave the site and the contributing function of Wetland A – D likely does not significantly impact the downstream waters of the Willamette River.

Retention and attenuation of flood waters: Due to the flat landscape, water leaving Wetlands A – D likely do not cause further erosion as floodwaters recede due to the establishment of vegetation post mining. Wetlands A – C are within the 100-year floodplain and likely increase flood storage and attenuate flood peaks. Wetland D, although excluded from the 100-year floodplain is similarly situated and would also increase flood storage and attenuate flood peaks. Runoff storage: Wetlands A – D capture some runoff during heavy rain events. The landscape is relatively flat and water dissipates across the landscape. The primary source of hydrology to Wetland A – D is a high ground water table and these wetlands do not significantly contribute runoff storage for the Willamette River.

Contribution of flow: Wetlands A – D were created from farmland in the floodplain and likely contributed to the lowering of local groundwater levels as seasonal high groundwater table fills the depression thus altering of hyporheic zone. However, Wetlands A – D are far enough in distance from the Willamette River that they do not significantly contribute to its flow.

Export of food resources: Wetlands A – D are currently not farmed and provide habitat for primary producers and their consumers such as arthropod assemblages. Many arthropods are migratory in nature and may contribute to the food sources for downstream aquatic species.

Establishment of life cycle dependent aquatic habitat for species located in an (a)(1)-(3) water. Wetlands A – D do not directly provide to the life cycle of species located in the Willamette River..

Jurisdictional Waters of the U.S.

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

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

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

Table 2. (a)(2) Interstate Waters

(a)(2) Waters Name	Rationale to Support (a)(2) Designation
N/A	N/A

Table 3. (a)(3) Territorial Seas

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

Table 4. (a)(4) Impoundments

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

Table 5. (a)(5) Tributaries

(a)(5) Waters Name	Flow Regime	(a)(1)-(a)(3) Water Name to which this (a)(5) Tributary Flows	Tributary Breaks	Rationale for (a)(5) Designation and Additional Discussion. Identify flowpath to (a)(1)-(a)(3) water or attach map identifying the flowpath; explain any breaks or flow through excluded/non-jurisdictional features, etc.
N/A	Choose an item.	N/A	Choose an item.	N/A

Table 6. (a)(6) Adjacent Waters

(a)(6) Waters Name	(a)(1)-(a)(5) Water Name to which this Water is Adjacent	Rationale for (a)(6) Designation and Additional Discussion. Identify the type of water and how the limits of jurisdiction were established (e.g., wetland, 87 Manual/Regional Supplement); explain how the 100-year floodplain and/or the distance threshold was determined; whether this water extends beyond a threshold; explain if the water is part of a mosaic, etc.
N/A	N/A	N/A

Table 7. (a)(7) Waters

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

Table 8. (a)(8) Waters

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

Non-Jurisdictional Waters

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

Table 9. Non-Waters/No Significant Nexus

SPOE Name	Non-(a)(7)/(a)(8) Waters Name	(a)(1)-(a)(3) Water Name to which this Water DOES NOT have a Significant Nexus	Basis for Determination that the Functions DO NOT Contribute Significantly to the Chemical, Physical, or Biological Integrity of the (a)(1)-(a)(3) Water. Identify SPOE watershed; explain how 100-yr floodplain and/or the distance threshold was determined; discuss whether waters were determined to be similarly situated to the subject water; discuss data, provide analysis, and summarize how the waters did not have more than a speculative or insubstantial effect on the physical, chemical, or biological integrity of the (a)(1)-(a)(3) water.
SPOE A	Wetland A	Willamette River (a)(1)	Wetland A is within the 100-year floodplain of the Willamette River and within 4,000 feet of Clear Lake / Claggett Creek (a)(5). However, similarly situated waters were not identified within SPOE A. Within the SPOE there were other palustrine wetlands identified on the NWI; however, they were not within a homogenous land cover and therefore not within a contiguous SVL. Additionally, there were no emergent wetlands within 4,000 feet of the Willamette River within the SPOE. The significant nexus determination as discussed in Section III. D. illustrates Wetland A does not contribute significantly to the Willamette River.
SPOE A	Wetland B	Willamette River (a)(1)	Wetland B is within the 100-year floodplain of the Willamette River and within 4,000 feet of Clear Lake / Claggett Creek (a)(5). However, similarly situated waters were not identified within SPOE A. Within the SPOE there were other palustrine wetlands identified on the NWI; however, they were not within a homogenous land cover and therefore not within a contiguous SVL. Additionally, there were no emergent wetlands within 4,000 feet of the Willamette River within the SPOE. The significant nexus determination as discussed in Section III. D. illustrates Wetland B does not contribute significantly to the Willamette River.
SPOE A	Wetland C	Willamette River (a)(1)	Wetland C is within the 100-year floodplain of the Willamette River and within 4,000 feet of Clear Lake / Claggett Creek (a)(5). However, similarly situated waters were not identified within SPOE A. Within the SPOE there were other palustrine wetlands identified on the NWI; however, they were not within a homogenous land cover and therefore not within a contiguous SVL. Additionally, there were no emergent wetlands within 4,000 feet of the

			Willamette River within the SPOE. The significant nexus determination as discussed in Section III. D. illustrates Wetland C does not contribute significantly to the Willamette River.
SPOE A	Wetland D	Willamette River (a)(1)	Wetland D is not within the 100-year floodplain of the Willamette River. However, it is within 4,000 feet of Clear Lake / Claggett Creek (a)(5). However, similarly situated waters were not identified within SPOE A. Within the SPOE there were other palustrine wetlands identified on the NWI; however, they were not within a homogenous land cover and therefore not within a contiguous SVL. Additionally, there were no emergent wetlands within 4,000 feet of the Willamette River within the SPOE. The significant nexus determination as discussed in Section III. D. illustrates Wetland D does not contribute significantly to the Willamette River.

Table 10. Non-Waters/Excluded Waters and Features

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

Table 11. Non-Waters/Other

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

ORM Summary Table

Waters_Name	State	Cowardin Code	Hgm Code	Meas Type	Amount	Units	Waters_Type	Latitude	Longitude	Local Waterway
NWP-2018-462 Site 1	OR	PEM-PALUSTRINE, EMERGENT	Depressional	AREA	4.81	ACRES	OTHERA8F	45.01943	-123.04978	Wetland A
NWP-2018-462 Site 2	OR	PEM-PALUSTRINE, EMERGENT	Depressional	AREA	0.04	ACRES	OTHERA8F	45.02066	-123.04922	Wetland B
NWP-2018-462 Site 3	OR	PEM-PALUSTRINE, EMERGENT	Depressional	AREA	0.23	ACRES	OTHERA8F	45.02167	-123.04941	Wetland C
NWP-2018-462 Site 4	OR	PEM-PALUSTRINE, EMERGENT	Depressional	AREA	0.75	ACRES	OTHERA8F	45.02281	-123.04964	Wetland D