DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
720 EAST PARK BOULEVARD, SUITE 245
BOISE, IDAHO 83712-7757

August 09, 2022

Regulatory Division

SUBJECT: NWW-2004-0600046, Suspension Letter for authorization under NWP 14 Site 1, US-95 Thorn Creek Road to Moscow, ITD Key No. 09294

Mr. Doral Hoff
Idaho Transportation Department, District 2
Post Office Box 837
Lewiston ID, 83843

Dear Mr. Hoff:

This letter is in regard to the Corps' decision, dated March 9, 2021, verifying authorization for project activities at Site 1 of the Thorn Creek Road to Moscow highway improvement under Nationwide Permit (NWP) No. 14: Linear Transportation Projects. The Corps has received new information that demonstrates there are unaccounted for wetlands within Site 1 that would likely be permanently impacted by the proposed Site 1 crossing, such that total Site 1 permanent losses of aquatic resources would not meet the criteria for authorization under NWP 14.

The Corps is hereby suspending its verification of authorization under NWP 14 for project activities specifically at Site 1. All activities at Site 1 undertaken in reliance on the Corps' March 9, 2021, verification letter for Site 1 therefore must immediately cease. Please note this suspension applies only to Site 1.

After a site visit conducted pursuant to a court order issued in Case No. 1:22-cv-00122-BLW (U.S. District Court, District of Idaho), Paradise Ridge Defense Coalition (PRDC) provided the Corps with a Letter Report dated June 29, 2022, which presented wetland delineation data collected at five sample points at Site 1. PRDC's Letter Report concluded that 1.16 acres of previously unidentified aquatic resources exist at Site 1. These aquatic resources were not accounted for by ITD or the Corps in 2020 and 2021 during the application and Site 1 permit verification process. After reviewing PRDC's Letter Report, ITD's Report dated July 20, 2022, and PRDC's Response to ITD's Report dated July 22, 2022, the Corp conducted an independent evaluation of the PRDC sample points within Site 1 on August 1, 2022, and determined that some additional aquatic resources indeed exist within Site 1.

The Corps' March 9, 2021, verification for Site 1 authorized under NWP 14 the

permanent loss of 0.468 acres of aquatic resources. The PRDC report identified an additional 1.16 acres of aquatic resources within Site 1—largely, it appears, within the area of permanent Site 1 project impacts. The Corps did not affirm the total additional acres of aquatic resources identified by PRDC. However, given the likely increase in expected losses to aquatic resources, the Corps cannot assure that permanent impacts at Site 1 will remain at or under the 0.5-acre limit for permanent loss of aquatic resources imposed by NWP 14.

In accordance with regulations at 33 C.F.R. §330.5(2), the Corps is suspending its March 9, 2021, verification for Site 1 of the Thorn Creek Road to Moscow highway improvement, to the extent that it allowed fill within Tributary P, Thorn Creek, Wetland B1, Wetland 23A, and Wetland 23B at Site 1 under NWP 14. This suspension is effective immediately. Given the expediency of litigation associated with this matter, the Corps proposes to formally revoke the verification on August 19, 2022. If you would like to present additional information regarding this matter, you may request to meet with the Corps prior to August 19, 2022.

If you have any questions or need additional information about this verification action, you can contact Michaela Murdock at Michaela.M.Murdock@usace.army.mil. For informational purposes, a copy of this letter will be sent to Mr. Shawn Smith of the Idaho Transportation Department (ITD), Ms. Aimee Hill of the ITD, Mr. Brent Inghram of the Federal Highways Administration, Ms. Sujata Connell of the Idaho Department of Environmental Quality, Mr. Clay Hickey of the Idaho Department of Fish and Game, Ms. Christina Hacker of the U.S. Fish and Wildlife Service, and Ms. Ashley Brown of the Idaho State Historic Preservation Office.

Sincerely,

Kelly Urbanek
Regulatory Division Chief

Enclosures:

1. March 9, 2021 – NWP 14 verification letter for Site 1
2. August 9, 2022 – Memorandum for Record including Attachments

Enclosure 1 *(Placeholder)*

March 9, 2021, Verification Decision Letter, *"NWW-2004-0600046, US-95 Thorn Creek Road to Moscow, KN 09294," to Doral Hoff, Idaho Transportation Department, District 2,* from Kelly J. Urbanek, Chief of Regulatory Division with Attachments

* This document was previously provided to the Court and the Parties in the Administrative Record filed May 11, 2022, located at the following:

Starting Bates	Ending Bates	Date	Author	Recipient	Subject/Description
USACE_NWW_000001	USACE_NWW_000132	3/9/2021	Kelly Urbanek, USACE-NWW	Doral Hoff, Idaho Transportation Department, District 2	Letter to ITD Verifying 13 Single and Complete Project Sites Under Nationwide Permit 14 (includes response to request for Preliminary Jurisdictional Determination)

MEMORANDUM FOR RECORD August 9, 2022

NWW-Regulatory Division NWW-2004-0600046, US-95 Thorn Creek Road to Moscow

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SUMMARY

Aquatic resources at Site 1 of the proposed Thorn Creek Road to Moscow (TC2M) highway improvement were evaluated by the Corps on August 1, 2022. It appears the total loss of waters of the United States at Site 1 may exceed the 0.5-acre threshold at this crossing for authorization under NWP 14. As such, the Corps should revoke its March 9, 2021, verification under NWP 14 for Site 1.

On August 1, 2022, U.S. Army Corps of Engineers (Corps) staff (Shane Skaar (NWW) and Dave Moore (NWS)) conducted an independent on-site evaluation of additional wetland delineation information provided by Paradise Ridge Defense Coalition (PRDC) and the Idaho Transportation Department (ITD). The PRDC report, dated June 29, 2022, was completed by Naiad Aquatic Consultants, LLC and Meadow Run Environmental, LLC and found 1.16 acres of additional palustrine emergent (PEM) wetlands within Site 1. The ITD report dated July 20, 2022, was completed by Resource Planning Unlimited, Inc., and it contested the results found in the PRDC report. PRDC additionally provided the Corps with a response to ITD's report dated July 22, 2022. The purpose of the Corps' site visit was to evaluate and consider PRDC's and ITD's different findings.

1.0 BACKGROUND

1.1 Location.

As set out in the Corps' March 9, 2021, verification letter, Site 1 is a single and complete linear project located between mile post 337.67 and 338.33 of US-95. The Site 1 project is located within in Latah County, near Moscow, Idaho.

NWP 14 Site Number	Impacted Aquatic Resources	Separate and complete project center point	
		Latitude	Longitude
1	Tributary P, Thorn Creek, Wetland B1, Wetland 23A, Wetland 23B	46.637119°	-117.000354°

1.2. Prior Evaluations of Site 1.

Site 1 is located at the southernmost end of ITD's proposed highway improvement between Thorn Creek and Moscow, Idaho. It is on the existing alignment of U.S.-95. The site begins where the previously improved portion of U.S.-95 ends, transitioning from a four-lane divided highway with shoulders and a 65-mph speed limit to a two-lane road with narrow shoulders and a 60-mph speed limit. The land on both sides of the highway has historically been used for agriculture. Within the past 2-3 years, the area to the west of the highway has been fallow and it is returning to a more natural state. In particular, Reed Canary and Creeping Meadow Foxtail grasses have proliferated.

For purposes of ITD's Department of Army (DA) permit application for the aquatic resource crossings associated with the TC2M highway improvement, ITD and/or its consultants conducted at least seven site visits between 2018 and 2020 (August-September 2018, May 2019, July 2019, April-May 2020, August 2020, and September 2020). The Corps visited in July and August 2020 to evaluate the sampling conducting by ITD and its consultants. Five aquatic resources were identified at Site 1 – Tributary P, Thorn Creek, Wetland B1, Wetland 23A, and Wetland 23B. ITD and its consultants determined, and the Corps affirmed, that 0.468 acres of these waters of the United States would be lost because of construction of the Site 1 project:

Aquatic Resource		*Acres Impacted*
1	Wetland B1	0.010
2	Wetland 23A	0.008
3	Wetland 23B	0.133
4	Tributary P	0.142
5	Thorn Creek	0.175
	TOTAL	**0.468**

On March 9, 2021, the Corps issued a verification decision letter determining that the proposed Site 1 project (as well as 12 other sites) was authorized under Nationwide Permit 14: Linear Transportation Projects ("NWP 14"). Included with the verification letter was a non-binding preliminary jurisdictional determination ("PJD"). The verification decision letter noted that the PJD "shall remain in effect, unless a request for an Approved Jurisdictional Determination or new information supporting a revision is provided to this office." New information supporting a revision of the PJD at Site 1 has now been provided to the Corps.

1.3. Paradise Ridge Defense Coalition Wetland Delineation (2022)

In response to a court order in Case No. 1:22-cv-00122-BLW (U.S. District Court, District of Idaho), consultants hired by Paradise Ridge Defense Coalition ("PRDC"), Dr. Nate Hough-Snee and Dr. William Kleindl, visited Site 1 on June 13-15, 2022. The consultants submitted their report on June 29, 2022.

PRDC's consultants reviewed the five aquatic resources identified in the PJD and the NWP 14 verification decision letter and substantially agreed with the determinations for three of the five aquatic resources – Wetland B1, Tributary P, and Thorn Creek. For Wetlands 23A and 23B, though, PRDC's consultants assert that an additional 0.022 acres of wetland in these areas would be lost because of construction of the Site 1 project (0.011, instead of 0.008 for Wetland 23A, and 0.152, instead of 0.133 for Wetland 23B).

Aquatic Resource		*PJD Total Acres*	*NWP 14 Acres Lost*	*PRDC Acres Lost*
1	Wetland B1	0.010	0.010	0.011
2	Wetland 23A	0.011	0.008	0.011
3	Wetland 23B	0.413	0.133	0.152
4	Tributary P	0.175	0.142	0.142
5	Thorn Creek	0.174	0.175	0.175
	TOTAL	**0.783**	**0.468**	**0.491**

Additionally, PRDC's consultants identified two previously unidentified wetland areas. The first area, *Wetland WLN*, was found west of U.S.-95. They determined Wetland WLN is connected to Wetland 23A and 23B, thereby creating one larger continuous wetland at this location. PRDC's consultants found that Wetland WLN is 0.978 acres. The second area, *Wetland WLN*-2, was found east of U.S.-95 and immediately north of where Thorn Creek intersects U.S.-95. PRDC's consultants found that Wetland WLN-2 is 0.182 acres. PRDC's consultants did not calculate how much of this additional 1.16 acres could be permanently lost as a result of construction at Site 1; however, they opined that "[g]iven that this increase in wetland area exists within the proposed activities of road construction, it is very likely that this construction will exceed the half-acre threshold for the Nationwide Permit 14 that the Army Corps of Engineers has issued for this site."

PRDC's consultants analyzed five soil pit samples/data points that they contend support their findings (*i.e.,* all three wetland characteristics or parameters—hydrology, vegetation, and soil—were determined to be present). These five data points and their associated wetlands are listed below.

PRDC Data Point	Aquatic Resource
DP2W	Wetland WLN-2
DP5	Wetland WLN
DP12W	Wetland WLN
DP13W	Wetland WLN

DP14W	Wetland WLN

1.4 Idaho Transportation Department's Wetland Verification (2022)

On July 14, 2022, Idaho Transportation Department and its consultants re-visited Site 1 to evaluate the wetland delineation findings made by PRDC's consultants. ITD's consultants looked at each of the 5 data points identified by PRDC as supporting ITD's wetland findings. ITD disagreed with PRDC's consultants, determining in its July 20, 2022, report that none of PRDC's five data points were located within wetlands (*i.e.,* none of the data points met all criteria for a wetland):

Data Point	Vegetation	Soil	Hydrology
DP2W	Yes	No	No
DP5	Yes	No	Yes
DP12W	No	No	Yes
DP13W	Yes	No	No
DP14W	Yes	No	Yes

1.5 Paradise Ridge Response to ITD Wetland Verification

On July 22, 2022, PRDC's consultants submitted a response to ITD's wetland verification memorandum dated July 20, 2022, in which ITD's consultants disagreed with PRDC's consultants' findings. In their response, PRDC's consultants maintained that additional, unaccounted for wetlands exist at Site 1 and opined that ITD's consultants' work was of "insufficient quality to refute our original findings."

1.6 U.S. Army Corps of Engineers, Walla Walla District Wetland Verification (2022)

On August 1 and 2, 2022, the Corps re-visited Site 1 to evaluate and consider the wetland findings made by PRDC's consultants and ITD's consultants. The Corps looked at each of the 5 data points previously analyzed by PRDC and ITD, as well as 2 additional data points. As discussed in more detail below, the Corps determined that all 7 data points were located within wetlands.

Data Point	Vegetation	Soil	Hydrology
WLN2 - DP2W	Yes	Yes	Yes
WLN-DP5	Yes	Yes	Yes
WLN-DP12W	Yes	Yes	Yes
WLN-DP13W	Yes	Yes	Yes
WLN-DP14W	Yes	Yes	Yes
ACE#1	Yes	Yes	Yes
ACE#2	Yes	Yes	Yes

During its site visit, the Corps did not delineate the boundaries of the additional wetland areas at Site 1 identified by PRDC and, thus, did not confirm the amount additional wetland acreage identified by PRDC's consultants. However, assuming (without accepting as true) the accuracy of PRDC's delineation, the newly identified wetland areas could add well over 1 acre of aquatic resources to the total amount of waters of the United States within Site 1.

Furthermore, although the Corps did not delineate the precise acreage of additional wetland areas, the location of and distance between the 7 data points evaluated by the Corps make it likely that: (1) additional wetlands will be permanently lost by construction of the Site 1 project; and (2) when combined with the other permanent losses previously identified at Site 1, total losses of aquatic resources at Site 1 would likely exceed the 0.5-acre threshold for authorization under NWP 14.

2.0 U.S. ARMY CORPS OF ENGINEERS' SITE VISIT (2022)

2.1 Site conditions.

The Antecedent Precipitation Tool (APT) confirmed that the Corps' field verification visit occurred within the 30-year normal range for precipitation in the region and that the verification occurred during the dry season, see figure 1 below. Previous precipitation events in June and July 2022 exceeded the 30-year normal range for precipitation, which is why the APT identified the precipitation conditions as wetter than normal for the August 1, 2022, site visit. No precipitation was observed on site during the Corps' site visit. The most recent precipitation event occurred on July 17, 2022, for the weather stations utilized by the APT.

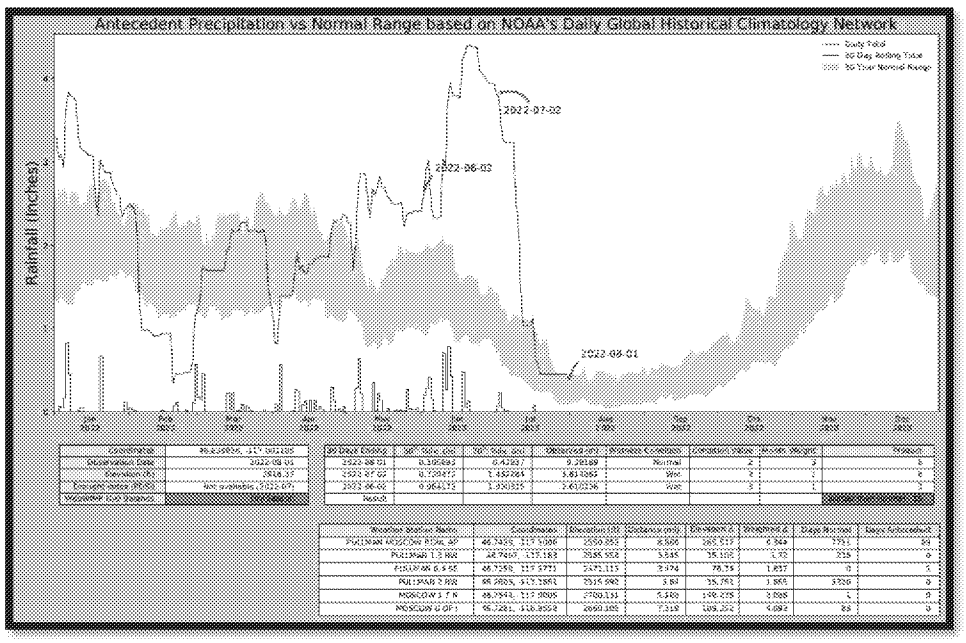


Figure 1, Antecedent Precipitation Tool Results for August 1, 2022, Field Verification at Site 1 of the US-95 Thorn Creek to Moscow highway improvement.

USDA web soil survey results dated August 3, 2022, found the soils within the wetlands (WLN, WLN2) as Latahco-Thatuna complex, 0 to 5 percent slopes. The dominant soils identified in the USDA web soil survey are not rated as hydric soils. However, the Latahco soils are somewhat poorly draining. Both wetland areas soils are categorized by the USDA Hydrologic Soils Map as hydrologic soil group C/D, which are soils that have slow infiltration rate when thoroughly wet. These consist primarily of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

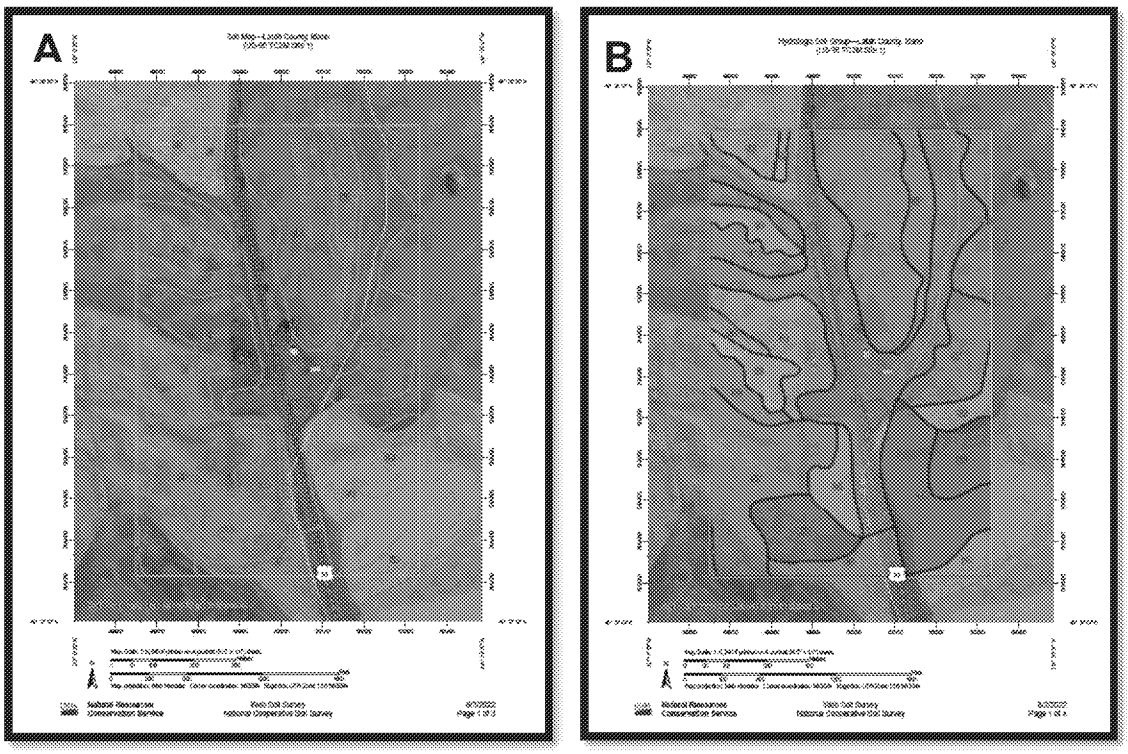
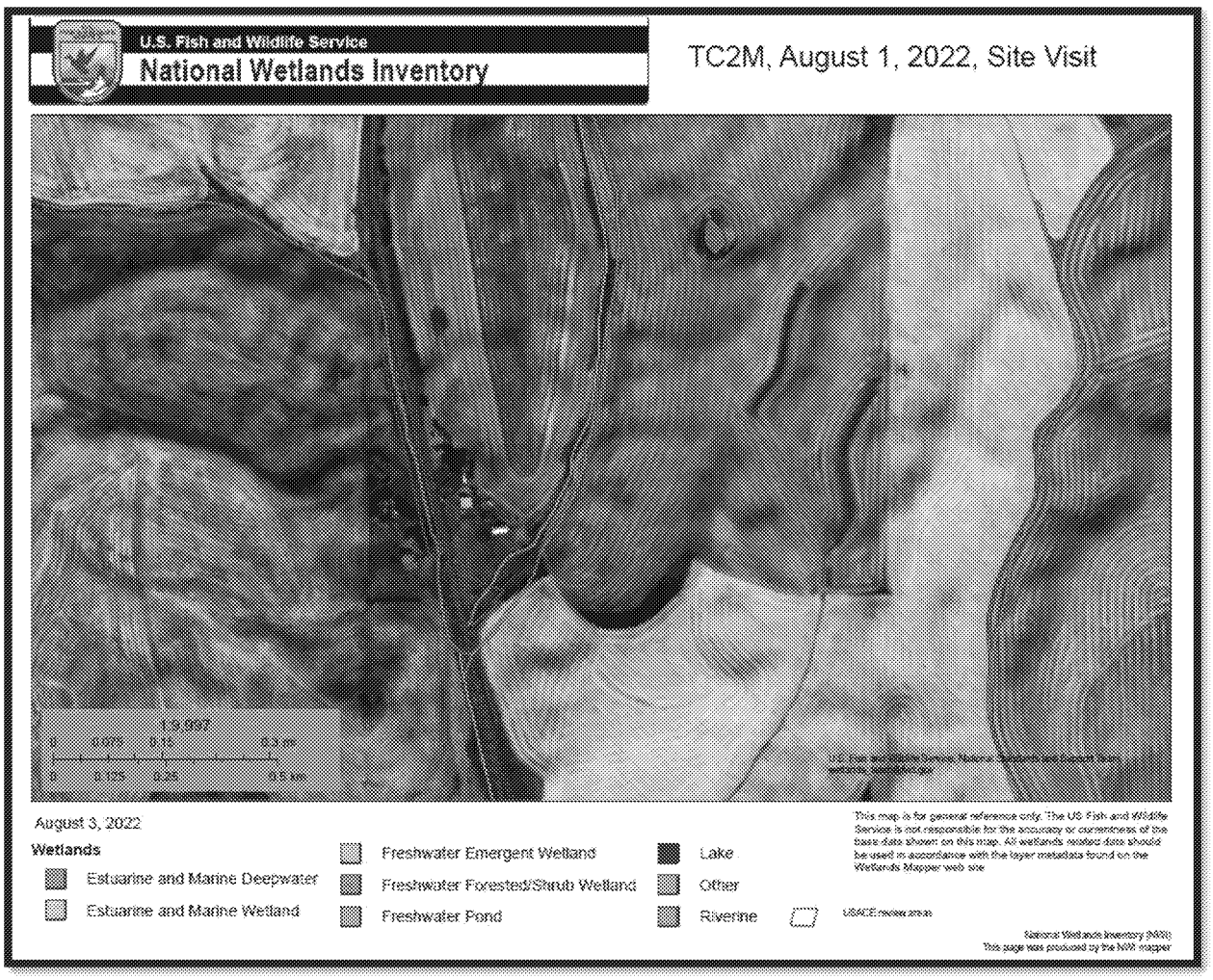


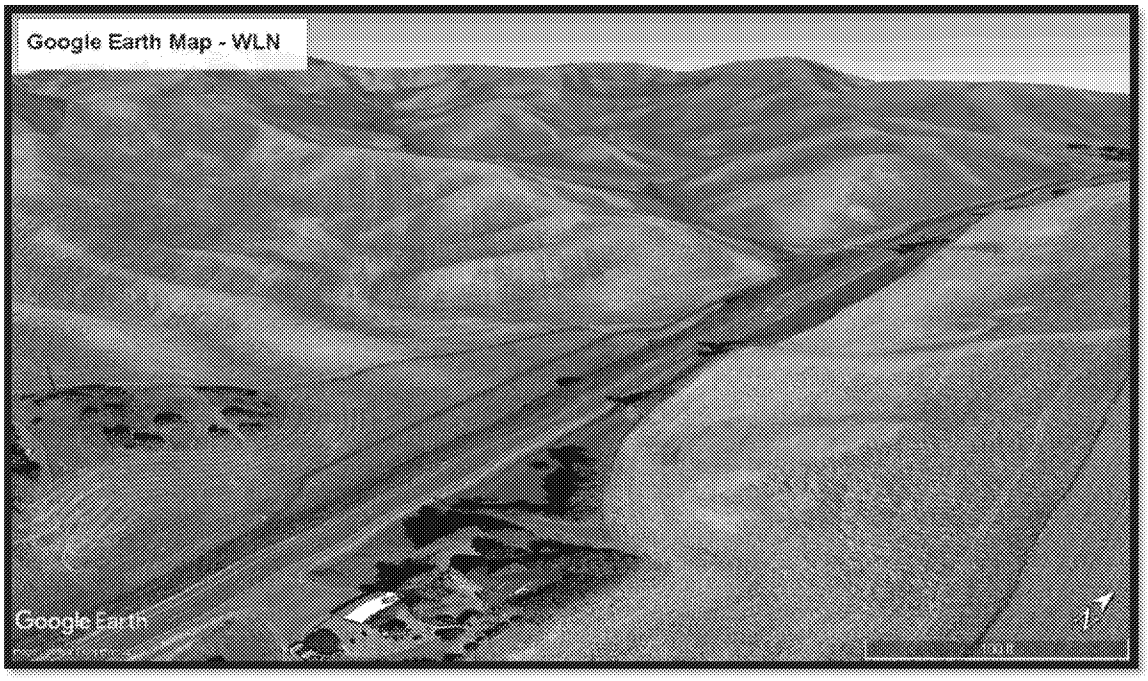
Figure 2A – Soils Map
Figure 2B – Hydrologic Soil Group Map

The review area for wetland WLN is not rated as a wetland based on the USFWS wetland mapper, dated August 3, 2022. Wetland WLN2 is also not demarcated on the USFWS mapper; however, a thin tributary-related wetland is identified.



2.2. Landscape setting.

Wetland “WLN” is located within the valley bottom near the western side of US-95. Wetland “WLN2” is located within the valley bottom near the eastern side of US-95. Wetlands WLN and WLN2 are found near the toe of slope of the agricultural hillsides. Both wetlands are in close proximity to agricultural practices such as haying of grass fields. The evaluation of samples DP13W and DP14W occurred in a small patch of undisturbed vegetation surrounded by hayed field. However, the need for a smaller assessment area (5ft radius) for herbaceous strata was sufficient for the samples. The other pits were located within relatively undisturbed vegetative strata. WLN parallels tributary P and the hillslope leading to tributary P.


Google Earth Map - WLN
Google Earth

Google Earth Map - WLN2
Google Earth

2.3. Methodology/ Evaluation Approach.

The Corps' evaluation of wetlands used the procedures outlined in the Corps' Arid West Regional Supplement version 2.0, dated September 2008. All three parameters for wetlands were evaluated at each of the seven sample locations (5 data points by PRDC and 2 data points by the Corps), see the wetland data sheets (ENG Form 6116 (1)) documenting those results.

The 5 wetland data points established by PRDC (*i.e.,* DP2, DP5, DP12W, DP13W, DP14W), which were contested by ITD, was the focus of the August 1-2, 2022, site visit. The Corps evaluated sample points immediately adjacent to these 5 data points. Two additional sample points established by the Corps were also collected during the field visit. The Corps did not re-delineate the wetlands boundaries that were provided by the PRDC report.

Field data collected on August 1-2, 2022, for the 7 sample points evaluated (*i.e.,* DP5, DP12W, DP13W, DP14W, DP2, ACE#1, ACE#2) was entered into the automated wetland delineation worksheets (ENG Forms 6116 (1)) on August 3, 2022. The three wetland parameters evaluated at each of those 7 sites are discussed below.

2.4. Vegetation.

The Corps' wetland data points were located within the same vegetation stratum as the previous delineations conducted by PRDC and ITD. The sample points consisted of mainly herbaceous strata, dominated by Creeping Meadow Foxtail (*Alopecurus arundinaceus* (which are Facultative Plants). The dominant vegetation nearest to the tributaries (Tributary P, Thorn Creek) within Site 1 was Reed Canary Grass (*Phalaris arundinacea* (which are Facultative Wetland Plans (FACW)) and then the dominant vegetation transitioned to Creeping Meadow Foxtail (Alopecurus arundinaceus (which are Facultative Plants)) before transitioning to an upland vegetation community.

2.5 Soils.

At each of the five previously established data points the Corps collected soil cores for soils evaluation from new soil pits dug within a 3-4 feet radius of the two existing (PRDC's and ITD's) wetland delineation pits, see Figure 3A below. A sharpshooter shovel was used to collect an approximately 6-inches wide by 6-inches long by 15-inches deep soil core sample used in the evaluation. This larger than typical soil sample allowed the Corps to bisect the sample with a soil knife into two samples approximately 3-inches wide by 6-inches long by 15-inches deep, which allowed one side to remain dry to reference any redox features that might be harder to identify. One side of the sample was opened to ensure no instrument contamination from the shovels or knife impacted the soils which were being evaluated, see Figure 3B below.

Figure 3A – Corps Sample Pit location in relation to ITD Sample Pit (Right-hand Stake) and PRDC Sample Pit (Left-hand Stake).
Figure 3B - Photo of a bisected Corps soil core (sample on right-hand side was broken open and evaluated).

For soils matrices with a darker color, the soil core was allowed to dry for 20-40 minutes to allow for the redox features to become readily visible, pursuant to the F6 indicator user notes of the Arid West Regional Supplement[1]. After soils dried, the samples were then moistened until the color no longer changed. The wetted soils were then allowed to dry until they no longer glistened. The soils evaluation was then conducted.

2.6 Hydrology.

The Corps conducted the field verification of the wetland sample points during the dry season instead of waiting for the wetted growing season, because of constraints imposed by the associated court case. The Antecedent Precipitation Tool (APT) confirmed the Corps' hydrology results. Site conditions were within the normal 30-year range for precipitation during the dry season for the day of the evaluation. However, the previous two months had higher than normal precipitation which resulted in APT output of wetter than normal conditions. The wetter than normal APT result had little bearing on the evaluation, though, since the sample points met the hydric soils and

[1] Pg 56, F6 indicator user notes: Careful examination is required to see what are often brownish redox concentrations in the darkened materials. If the soil is saturated at the time of sampling, it may be necessary to let it dry at least to a moist condition for redox features to become visible. In some instances, further drying of the samples makes the concentrations (if present) easier to see.

hydrophytic vegetation indicators, per the Arid West Regional Supplement.[2] Each sample site evaluated the primary and secondary indicators applicable for that region. The secondary indicator of drainage patterns (B10-secondary indicator) was not observed at the sample points.

At DP12 and DP13, the Corps did not find primary or secondary indicators for hydrology during the dry season review of the sample points. Since the site visit occurred during the dry season and the sample points (*i.e.,* DP12 and DP13) met the hydric soils and hydrophytic vegetation indicators and there was no evidence of hydrologic manipulation (*e.g.*, no drainage ditches, dams, levees, water diversions, etc.), the sample points were presumed to be a wetland and to meet all three parameters per the Arid West Regional Supplement pages.[3]

2.7 Wetland WLN.

The Corps conducted a verification of four wetland data pits (DP5, DP12W, DP13W, and DP14W) for the wetland identified as "WLN" within the PRDC report. All four of the data pits met all three wetland parameters during the Corps' evaluation.[4] The Corps also completed two additional, separate wetland data points (ACE#1 and ACE#2). These data points were not collected during the PRDC evaluation or the ITD evaluation of Site 1. Both ACE#1 and ACE#2 sample points met all three wetland parameters. The Corps collected these two additional points to confirm its evaluation.

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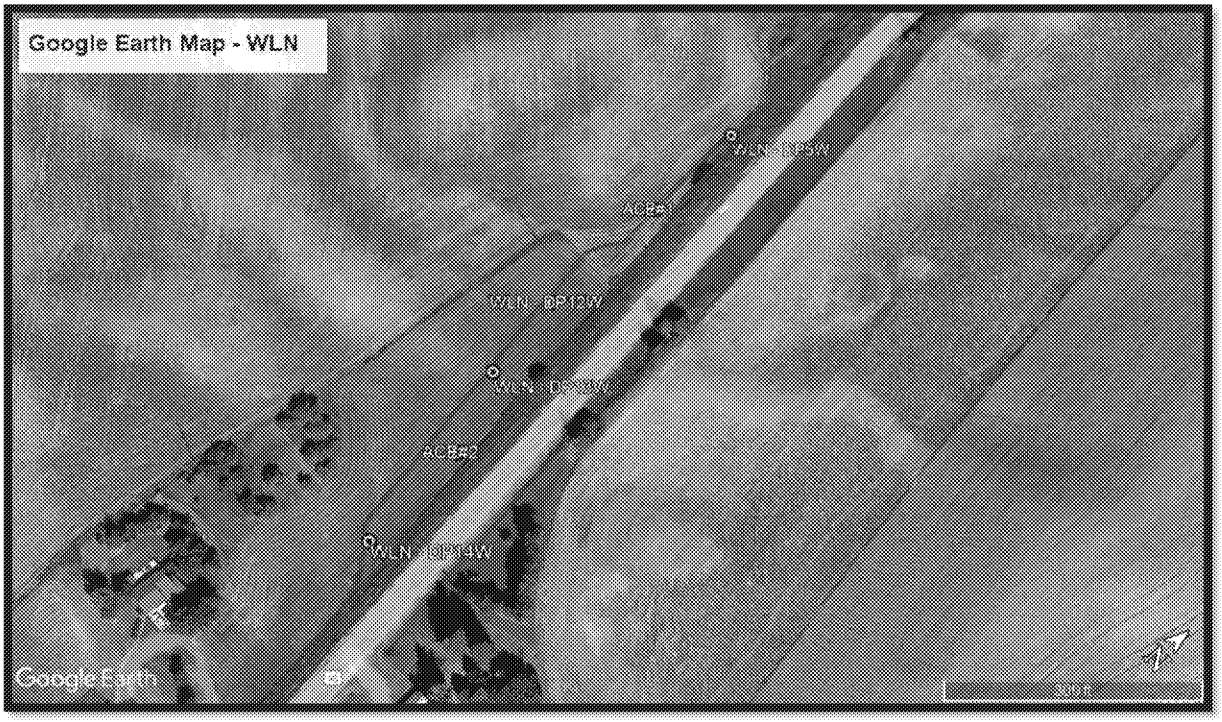
[2] Pp. 102-104, Section 3A.

[3] Arid West Regional Supplement, pp. 102-104, Section 3A: Site visits during the dry season. Determine whether the site visit occurred during the normal annual "dry season." The dry season, as used in this supplement, is the period of the year when soil moisture is normally being depleted and water tables are falling to low levels in response to decreased precipitation and/or increased evapotranspiration, usually during late spring and summer. It also includes the beginning of the recovery period in late summer or fall. The Web -Based Water-Budget Interactive Modeling Program (WebWIMP) is one source for approximate dates of wet and dry seasons for any terrestrial location based on average monthly precipitation and estimated evapotranspiration (http://climate.geog.udel.edu/~wimp/). In general, the dry season in a typical year is indicated when potential evapotranspiration exceeds precipitation (indicated by negative values of DIFF in the WebWIMP output), resulting in drawdown of soil moisture storage (negative values of DST) and/or a moisture deficit (positive values of DEF, also called the unmet atmospheric demand for moisture). Actual dates for the dry season vary by locale and year. In many wetlands, direct observation of flooding, ponding, or a shallow water table would be unexpected during the dry season. Wetland hydrology indicators, if present, would most likely be limited to indirect evidence, such as water marks, drift deposits, or surface cracks. In some situations, hydrology indicators may be absent during the dry season. If the site visit occurred during the dry season on a site that contains hydric soils and hydrophytic vegetation and no evidence of hydrologic manipulation (e.g., no drainage ditches, dams, levees, water diversions, etc.), then consider the site to be a wetland. If necessary, revisit the site during the normal wet season and check again for the presence or absence of wetland hydrology indicators. The highly variable spatial and temporal distribution of rainfall in the Arid West makes generalities difficult. However, if wetland hydrology indicators are absent during the wet portion of the growing season in a normal or wetter than-normal rainfall year, the site is probably non-wetland.

[4] Note, however, that Wetland Hydrology was assumed for DP12 and DP13 as discussed in Section 2.6.



2.8 Wetland WLN2.

The Corps evaluated one wetland data pit (DP2) for the wetland identified as “WLN2” in the PRDC report dated June 29, 2022. The sample point DP2 met all three wetland parameters during the Corps evaluation.

2.9 Geospatial location of Data Points.

The geospatial coordinates for the Corps' wetland soil pits/data points were collected by a Corps staff surveyor (Robert J. Byrons) using a Trimble R12i base with Rover GPS, on August 2, 2022, see Figure 4 below. This GPS unit has horizontal accuracy of approximately 8 millimeters. The latitude and longitudinal coordinates for the sample points were provided on August 3, 2022, to the Corps Regulatory team.

The Corps used a Trimble R12i to record the locations of its soil pits/data points to eliminate any dispute based on the GPS device used. However, use of the Trimble R12i was not necessary. The location of the points evaluated by the Corps and their proximity to the points evaluated by PRDC and ITD were not in question. Moreover, the points evaluated by PRDC and ITD, and affirmed by the Corps on August 1-2, 2022, were all flagged and readily identifiable on the ground.

Figure 4 – Geospatial data collection using Trimble unit to collect Sample Point "DP2-Corps Review" within wetland "WLN2".

3.0 CONCLUSION

3.1 Site Visit Findings.

The Site 1 NWP 14 verification decision issued by the Corps on March 9, 2021, found 0.468 acres of permanent loss to aquatic resources at that site. This verification did not account for additional aquatic resources identified by the PRDC report and affirmed by the Corps on August 1-2, 2022.

Given these findings, the highway construction/crossing at Site 1 proposed in ITD's September 29, 2020, application likely would result in the permanent loss of more than 0.5 acre of aquatic resources at Site 1. For this reason, the Corps cannot assure that the proposed Site 1 work in ITD's application will be under the 0.5-acre threshold for permanent loss of aquatic resources for NWP 14.

3.2 Next Steps.

The Corps will suspend and propose to revoke the March 9, 2021, NWP 14 verification decision for Site 1, issued under Department of the Army Permit Number NWW-2004-060046.

COORDINATION:

_____
Michaela Murdock
Attorney Advisor, Office of Counsel Division

☐ Concur ☐ Non-Concur Date

SUBMITTED BY:

_____
Shane Skaar
Environmental Resources Specialist

FOR APPROVAL BY: CENWW-RD Division Chief

☒ APPROVED ☐ DISAPPROVED ☐ SEE ME

Kelly Urbanek
Regulatory Division Chief
Walla Walla District

Attachments:

1. Wetland Determination Data Sheets (August 1, 2022)

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN DP5-Corps

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: 46.639910 Long: -117.001400 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		

Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	50	Yes	FAC
2. *Cirsium arvense*	10	No	FACU
3. *Phalaris arundinacea*	75	Yes	FACW
4.			
5.			
6.			
7.			
8.			
	135 =Total Cover		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	50	x 3 =	150
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	135 (A)		340 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: WLN DP5-Corps

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Loamy/Clayey	
4-10	10YR 3/1	97	10YR 4/6	3	C	PL	Loamy/Clayey	Prominent redox concentrations
10-16	10YR 3/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Due to the dark-colored soils the soil core was allowed to dry for approximately 20-40 minutes. Dry soils were moistened until the color no longer changed and the wetted soils were allowed to dry until they no longer glisten before the evaluation was conducted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- X Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ___	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 17
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 13

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The hydrology indicator evaluation was conducted during the dry season.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN DP12-Corps

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: 46.638850 Long: -117.001210 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	75	Yes	FAC
2. *Elymus repens*	75	Yes	FAC
3. *Trifolium dubium*	20	No	UPL
4.			
5.			
6.			
7.			
8.			
	170	=Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	150	x 3 =	450
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	170 (A)		550 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: WLN DP12-Corps

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	97	10YR 4/6	3	C	PL	Loamy/Clayey	Prominent redox concentrations
6-15	10YR 3/1	90	10YR 5/3	5	D	PL	Loamy/Clayey	
			10YR 4/2	5	C	PL/M		Faint redox concentrations
15-22	10YR 3/1	93	10YR 5/2	7	D	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Due to the dark-colored soils the soil core was allowed to dry for approximately 20-40 minutes. Dry soils were moistened until the color no longer changed and the wetted soils were allowed to dry until they no longer glisten before the evaluation was conducted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The hydrology indicator evaluation was conducted during the dry season. Hydrology is assumed per Arid West Regional Suppliment (pg 102-104). No secondary indicators were observed.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN DP13 Corps

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: 46.638580 Long: -117.001120 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	100	Yes	FAC
2. *Bromus inermis*	20	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	120	=Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	100	x 3 = 300
FACU species	20	x 4 = 80
UPL species	0	x 5 = 0
Column Totals:	120 (A)	380 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: WLN DP13 Corps

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					Loamy/Clayey	
6-11	10YR 3/1	93	5YR 3/4	7	C	PL/M	Loamy/Clayey	Prominent redox concentrations
11-21	10YR 3/1	97	10YR 4/4	3	C	PL	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:
Due to the dark-colored soils the soil core was allowed to dry for approximately 20-40 minutes. Dry soils were moistened until the color no longer changed and the wetted soils were allowed to dry until they no longer glisten before the evaluation was conducted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology is assumed due to site visit occuring during dry season, per pages 102-104 Arid West Regional Suppliment. No secondary indicators were present.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN DP14 Corps

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: 46.637760 Long: -117.000700 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	100	Yes	FAC
2. *Elymus repens*	20	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	120	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	120	x 3 =	360
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		360 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Camas (Camassia quamash) bulb observed in the soil profile.

SOIL

Sampling Point: WLN DP14 Corps

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	90	5YR 4/6	10	C	PL	Loamy/Clayey	Prominent redox concentrations
12-22	10YR 3/1	98	10YR 4/2	2	D	PL	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:
Due to the dark-colored soils the soil core was allowed to dry for approximately 20-40 minutes. Dry soils were moistened until the color no longer changed and the wetted soils were allowed to dry until they no longer glisten before the evaluation was conducted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Oxidized rhizopheres on living roots observed within 12 inches of soil surface. Soil was moist to the touch throughout the soil profile. No secondary indicators were observed.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN2 DP2 Corps

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-5

Subregion (LRR): LRR B Lat: 46.636050 Long: -116.999540 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	

Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	100	Yes	FAC
2. *Elymus repens*	20	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	120	=Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	120	x 3 =	360
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		360 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

SOIL

Sampling Point: WLN2 DP2 Corps

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	97	10YR 4/6	3	C	M	Loamy/Clayey	Prominent redox concentrations
4-10	10YR 3/1	90	5YR 4/6	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations
10-16	10YR 3/2	99	10YR 4/6	1	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR C)**
___ 1 cm Muck (A9) **(LRR D)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR C)**
___ 2 cm Muck (A10) **(LRR B)**
___ Iron-Manganese Masses (F12) **(LRR D)**
___ Reduced Vertic (F18)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:
Soils were dry upon extractions. Soils were wetted with a spray bottle until the soil color no longer changed and the soil were not glistening.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) **(Nonriverine)**
___ Sediment Deposits (B2) **(Nonriverine)**
___ Drift Deposits (B3) **(Nonriverine)**
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
X Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Water Marks (B1) **(Riverine)**
___ Sediment Deposits (B2) **(Riverine)**
___ Drift Deposits (B3) **(Riverine)**
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Oxidized rhizospheres occurred within the 4-10 inch soil profile.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN ACE#1

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	100	Yes	FAC
2. *Cirsium arvense*	3	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	103	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	100	x 3 = 300
FACU species	3	x 4 = 12
UPL species	0	x 5 = 0
Column Totals:	103 (A)	312 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

SOIL

Sampling Point: WLN ACE#1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Loamy/Clayey	
3-4	10YR 4/2	95	10YR 5/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations
4-14	10YR 3/1	95	10YR 4/6	3	C	PL	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Due to the dark-colored soils the soil core was allowed to dry for approximately 20-40 minutes. Dry soils were moistened until the color no longer changed and the wetted soils were allowed to dry until they no longer glisten before the evaluation was conducted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Soils were moist to touch throughout the whole soil profile. The hydrology indicator evaluation was conducted during the dry season. No secondary indicators were observed.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET – Arid West Region** See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	*OMB Control #: 0710-0024, Exp: 11/30/2024* *Requirement Control Symbol EXEMPT:* *(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: US-95 Thorn Creek Rd to Moscow/Site 1 City/County: Moscow/Latah Sampling Date: 8/1/2022

Applicant/Owner: Idaho Transportation Department, District 2 State: ID Sampling Point: WLN ACE#2

Investigator(s): Shane Skaar, Dave Moore Section, Township, Range: Section 17, T38N, R5W

Landform (hillside, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): LRR B Lat: 46.638190 Long: -117.000810 Datum: NAD83

Soil Map Unit Name: Latacho-Thatuna complex NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Alopecurus arundinaceus*	100	Yes	FAC
2. *Cirsium arvense*	5	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	105	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	100	x 3 =	300
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	105 (A)		320 (B)

Prevalence Index = B/A = 3.05

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

____ Prevalence Index is ≤3.0[1]

____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Camas bulbs (Camassia quamash) were present in the soils.

SOIL

Sampling Point: WLN ACE#2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	98	10YR 4/4	2	C	PL	Loamy/Clayey	Distinct redox concentrations
5-11	10YR 3/1	88	5YR 5/6	5	C	PL/M	Loamy/Clayey	Prominent redox concentrations
			10YR 4/2	7	D	M		
11-15	10YR 3/1	97	10YR 4/2	3	D	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: None observed

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Soil was evaluated immediately after soil core was extracted.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The hydrology indicator evaluation was conducted during the dry season. No secondary indicators were observed.