FIELD AQUATIC RESOURCE DELINEATION AND OHWM REPORT

PORT OF ND CRISI GRANT

January 2022

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Executive Summary

The NDDOT, in cooperation with the City of Minot and Minot Chamber Economic Development Corporation has received a USDOT Federal Railroad Administration (FRA) Grant through its Consolidated Rail Infrastructure and Safety Improvements (CRISI) program to study future business model direction for the intermodal facility in Minot, ND. Ackerman-Estvold was the selected consultant for the project. To comply with NEPA, Ackerman-Estvold has conducted a field aquatic resource study of the subject area. This delineation has been conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the 2010 Great Plains Regional Supplement. Ordinary High-Water Mark (OHWM) identification was conducted in accordance with the 2008 A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States and the 2005 USACE Regulatory Guidance Letter 05-05.

The total area studied included roughly 934 acres (**Figure 1 in Appendix A**). Thirty-six (36) wetlands (totaling 52.96 acres) were delineated in the Study Area (**Table 1**, **Wetlands**). Eleven (11) other waters (totaling 15.4 acres and 4,369 linear feet) were delineated within the Study Area (**Table 2**, **Other Waters**). These aquatic features are noted in **Figures 2.1 and 2.2 in Appendix A**.

Dominant aquatic resource classifications near or within the Study Area include:

- Thirteen (13) PEM1A, palustrine, emergent, persistent, temporarily flooded wetlands.
- Four (4) PEM1Ax, palustrine, emergent, persistent, temporarily flooded, farmed wetlands.
- Twelve (12) PEM1Af, palustrine, emergent, persistent, temporarily flooded, farmed wetlands.

• Seven (7) PEM1C, palustrine, emergent, persistent, seasonally flooded wetlands.

• Two (2) PEM1F, palustrine, emergent, persistent, semi-permanently flooded wetlands.

• Three (3) PEM1Fx, palustrine, emergent, persistent, semi-permanently flooded wetlands.

- One (1) R4SB5, riverine, intermittent, mud streambed.
- Five (5) R4SB7, riveine, intermittent, vegetated streambed.

Climatic and precipitation conditions at the time of the fieldwork were average temperatures and precipitation was below the annual average for that time of year (NDAWN Recent Rainfall Data in Appendix B – Supporting Documentation).

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Acronyms and Abbreviations

BMP	best management practice
cfs	cubic feet per second
LIDAR	Light Detection and Ranging
LWD	large woody debris
MP	Mile Post
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OHWM	ordinary high-water mark
PEM	palustrine emergent
PFO	palustrine forested
PSS	palustrine scrub-shrub
ROW	right-of-way
SR	State Route
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

Chapter 1. Introduction

Ackerman-Estvold (AE) was contracted by the Minot Area Development Corporation and the Port of ND to conduct a field aquatic resource delineation for a portion of a parcel along Ward County Road 12 between 27th Street NE and 55th Street NE, east of Minot, North Dakota. The project is in the process of acquiring a CRISI grant to assist in optimizing the uses and development of the Port of ND going forward. The parcel is currently owned by the Minot Area Development Corporation and used for canola agriculture, commercial agricultural uses, aggregate mining, and other agricultural production.

A total Study Area of 934 acres were surveyed. Wetland acreages listed in this report are located within the project extents. This area is near the western edge of the Central Lowlands physiographic province. This area has been affected by previous glaciation. It is in the "prairie pothole" region consisting of lakes and marshes without integrated drainage. The surrounding area is part of the former Glacial Lake Souris lakebed. The Mouse River Valley can be found to the south and west. The surrounding area consists of other agricultural fields along with some commercial development along the roadways. Primary upland vegetation consists of smooth brome grass mixed prairie and agricultural fields.

The purpose of this report is to identify and describe aquatic resources and to identify known possible sensitive plant, fish, wildlife species, and properties in the survey area.

This report facilitates efforts to:

1. Avoid or minimize impacts to aquatic resources during the design process.

2. Document aquatic resource boundary determinations for review by regulatory authorities.

3. Provide early indications of known sensitive species within the survey area.

4. Provide background information for regulatory review process.

Contact information for the landowner is included in **Appendix G.**

In October and November 2021, Kevin Ploof, REHS/RS performed a series of onsite observations and aquatic resource delineations. The overall drainage area received below normal precipitation in the four weeks prior to the field investigation (**see Appendix B - Recent Rainfall Data**).

Chapter 2. Location

The Study Area is in Sections 8, 16, 17, 21, and 22, Township 155 North, Range 82 West of the 5th Prime Meridian, in Ward County, North Dakota. The center of the Study Area is located at 48.246005 latitude and -101.229327 longitude (NAD83). The project topography ranges from 1,680 feet (NAVD88) in the northwest field to 1,597 feet (NAVD88) along County Road 12 at the southwest corner of the site.

Site directions from Bismarck are as follows: proceed north on US-83 to the junction of US-83 (Broadway) and US-83 Bypass (~111 miles). Go east on US 2 towards Devils Lake for approximately 5 miles to 55th St SE turn left(north) for 0.75 mile, then after bridge turn left onto County Road 12, ND Port Services is located at 4900 Railway Avenue/County Road 12 (south side). **These directions are included in Appendix H**.

Ward County, which is near the geographical center of North America, has a continental climate typical of the northern Great Plains. To the west, the Rocky Mountains limit the climatic pattern of air masses moving across the country from the Pacific Ocean. However, there are no landforms to restrict air movements from the north and from the south. In the summer, the average daily temperature is 68 degrees F, while the average winter daily temperature is 16 degrees F. The average annual precipitation for rainfall is 17.2 inches and 47 inches for snowfall (US Climate Data 2020).

The Study Area is in HUC-12 watershed #0900081206, Livingston Creek-Souris River watershed. The project is located along the north edge of Minot.

Chapter 3. Methods

In October and November 2021, Kevin Ploof, REHS/RS performed a series of onsite observations and aquatic resource delineations. The overall drainage area received below normal precipitation in the four weeks prior to the field investigation (**see Appendix B** - **Recent Rainfall Data**). Indicators and procedures used in this wetland delineation are designed to identify wetlands as defined jointly by the U.S. Army Corps of Engineers (33 CFR 328.3) and Environmental Protection Agency (40 CFR 230.3). Wetlands are a subset of the "Waters of the United States" that may be subject to regulation under Section 404 of the Clean Water Act. Wetlands are defined as, "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Prior to conducting the site visit, several supporting information sources were reviewed. Information sources included in this review were: aerial imagery (ND DWR, 2021), United States Geographic Survey (USGS) Surrey, ND Topographic Quadrangle map (USGS, 2020), National Wetland Inventory Map (USFWS, 2021), and Natural Resource Conservation Service (NRCS) Web Soil Survey Maps (NRCS, 2021). All these resources are available for review in **Appendix B – Supporting Documentation**. The onsite wetland and potential OHWM investigations were conducted using a hand-held Trimble GeoExplorer6000 Series Global Positioning System (GPS) unit, AMS Hand Auger, tiling spade, camera, applicable field guides, manuals, and other reference materials.

3.1 Wetland Delineation Methodology

The methodology used to delineate wetlands during the onsite visit were in accordance with the *1987 U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region; Version 2.0* (U.S. Army Corps of Engineers, 2010). Potential wetlands were examined for the presence of hydrophytic vegetation, hydric soils, and hydrology.

Plant species were observed throughout the Study Area. Distinct vegetation changes were observed in the plant communities present in the Study Area. Every plant species noted within each observation point was assigned a wetland indicator status. The methodology used to determine this indicator status was based upon the *National*

Wetland Plant List – Great Plains Region (Lichvar, R.W. et al., 2018) and U.S. Army Corps of Engineers State of North Dakota 2018 Wetland Plant List (Lichvar, R.W. et al., 2018). A plant community is considered hydrophytic if more than 50% of the dominant species present, within all vegetative strata, have an indicator status of obligate (OBL), facultative wet (FACW), or facultative (FAC) wetland probability of occurrence.

A portion of the Study Area consisted of active production agricultural fields (primarily canola).

Hydric soil properties described within this report follow the Field Indicators of Hydric Soils in the United States – A Guide for Identifying and Delineating Hydric Soils, Version 8.2 (Field Indicators, USDA/NRCS, 2018). During the site visit, soils were examined and documented by digging soil borings (2.5 inch AMS auger) or tiling spade cores (8-12 inches in diameter) at observation points. These observation points were selected to represent wetland and upland locations present in the Study Area. Soils at these observation points were reviewed to determine if they were hydric. The Munsell Soil Color Book (Munsell, 2009) was used to describe the soils observed.

Wetland hydrology was determined using the methods and indicators discussed in Environmental Laboratory, 1987 and the U.S. Army Corps of Engineers, Great Plains Regional Supplement, 2010. At least one primary indicator is required to establish that wetland hydrology is present at the observation point. If a primary indicator is absent, two or more secondary wetland hydrology indicators are required to establish sufficient wetland hydrology.

Wetlands and non-wetland other waters were classified according to Classification of Wetlands and Deepwater Habitats of the United States (Wetlands Subcommittee adapted from Cowardin et. al., 2013). Wetland boundaries were demarcated with a Trimble GeoExplorer6000 Series global positioning system (GPS) unit.

All forms, additional site references, and supporting photographs are located in the attached Appendices.

3.2 Ordinary High Water Mark Determination Methodology

"Non-wetland other waters," do not exhibit all three parameters required for wetlands (i.e. hydrophytic plants, hydric soils, and wetland hydrology). Boundaries for these features would be delineated by observing the OHWMs according to USACE Regulatory Guidance Letter No. 05-05 (U.S. Army Corps of Engineers, 2005).

U.S. Army Corps of Engineers' regulations set forth in 33 CFR 328.3(e) (*Definitions of Waters of the United States*) defines the OHWM for purposes of Clean Water Act lateral jursidiction as, "The term *ordinary high water mark* means, that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

Eleven areas within the Study Area appeared to exhibit the physical characteristics for the determination of an OHWM.

4.1 Landscape Setting

The total Study Area consisting of roughly 934 acres was surveyed. Acreages listed for aquatic resources include the Study Area delineated feature (within the Study Area). The Study Area consists of gently rolling fields, mass graded improved area, some rolling hills, a gravel pit, and a former FEMA mobile home park. Elevations within the Study Area vary from 1597 feet above sea level (asl) to 1680 feet asl. Adjacent land is being used for agricultural cropland or commercial uses primarily. Below average precipitation preceded the site visit to the location. No other atypical conditions were noted.

The Study Area is part of the Souris Lake Plain Section of the Central Lowlands Province. This area was previously affected by glaciation including the most recent episode (14,000-11,000 YBP). Primary upland vegetation consists of smooth brome grass mixed prairie and agricultural fields.

4.2 Aquatic Resources

4.2.1 Overview

Thirty-six (36) wetlands were delineated in the 934-acre Study Area (**Table 1, Wetlands**). Eleven other waters or drainages were delineated in the Study Area (**Table 2, Other Waters**).

Photograph locations, soil observation locations, and delineated aquatic resources are presented on a **Figures 2.1 and 2.2 in Appendix A**. The NWI Map is in **Appendix B**. The referenced photographs can be reviewed in **Appendix C**. **Appendix D** contains the Project Plant List which notes the plants observed at the soil observation points studied. The observed plants along the wetland boundaries and soil observations can be found on the Wetland Data Forms located in **Appendix E**. Notes related to the Other Water criteria used to delineate these features are in **Appendix F**.

Aquatic Resource Delineation Results

<u>Wetlands</u>

Wetland 1 – 0.01 acres

Wetland 1 (Photo 1 in Appendix C) consists of less than 0.01 of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 1 is located near a small electrical substation east of the 55th Street Overpass

Bridge (SW of Minot Milling). On-site observations indicates that hydrology supporting Wetland 1 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting soil observation pairs, changes in the plant community, and the general topography of the suspected wetland. The observed plants at the Wetland 1 observation pair included *Elymus repens* (FACU), *Poa pratensis* (FACU), and *Bromus inermis* (UPL) as dominant upland species and *Typha angustifolia* (OBL) and *Phalaris arundinacea* (FACW) as the dominant wetland species. The mapped soil series (NRCS, 2021) for this location was Vallers loam, saline, 0 to 1% slopes. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 1's soil observation (Obs. 1W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of mostly clay loams to the recorded boring depth of 8-inches. Soil observation 1W meets the redox dark surface (F6) indicator within the first 8-inches of soil profile. The indicator requires a layer that is at least 4 inches thick, starting within a depth 8 inches from the soil surface, and has either: a. a matrix value of 3 or less and a chroma of 1 or less and 2 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings, or b. matrix value of 3 or less and chroma of 2 or less and 5 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings (NRCS, 2018). The hydric soil borings had 10YR 2/1 matrix at 90% from 0-8 inches, with redoximorphic concentrations (3-10%) throughout the profile.

Wetlands 2a (0.06), 2b (0.03), 2c (0.01), 2d (0.04), & 2e (0.08) - 0.22 acres

Wetland 2a, 2b, 2c, 2d, & 2e (Photos 2-4 in Appendix C) consists of 0.22 acres of palustrine, emergent, temporarily flooded, excavated ditch wetland (PEM1Ax) (Table 1, Wetlands). The multiple basins of Wetland 2 are adjacent to the surface road underneath the 55th Street SE overpass and the roads along the west side of Minot Milling. On-site observations indicates that hydrology supporting Wetland 2 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding roadways and topography and possibly groundwater discharges. The wetland boundaries were determined by observing changes in the plant community and the general topography of the suspected wetland. No soils observation was conducted due to high potential for utility conflicts. The observed plants at the

Wetland 2 observation pair (2U & 2W) included *Elymus repens* (FACU), *Bouteleua gracilis* (FACU), and *Bromus inermis* (UPL) as dominant upland species and *Typha angustifolia* (OBL). The mapped soil series (NRCS, 2021) for this location was Vallers loam, saline, 0 to 1% slopes. Hydrology indicators observed include drainage patterns (B10), FAC-Neutral Test (D5), and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and groundwater recharge.

Wetland 3 – 0.30 acres

Wetland 3 (Photo 5 in Appendix C) consists of 0.30 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 3 is a small depression located within the active port. The active loading and unloading operations along with the placement of storage containers on or near this site prohibited a field delineation of this feature. The wetland area delineated was based off inundation noted on aerial imagery on several years. Climatic conditions at the time of the field work were generally dry but this site was observed to have standing water throughout the duration of field work conducted in the vicinity. Off-site observations indicate that hydrology supporting Wetland 3 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by reviewing aerial imagery and site topography. The mapped soil series (NRCS, 2021) for this location was Vallers loam, saline, 0 to 1% slopes. . Hydrology indicators observed include inundation visible on aerial imagery (B7) and saturation visible on aerial imagery (C9) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff, groundwater recharge, and stormwater storage.

Wetland 4 – 3.79 acres

Wetland 4 (Photo 6 in Appendix C) consists of 3.79 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 4 is a depression located near Souris Valley Ready-Mix's facility. A drainage ditch (OW2-D) connects Wetland 4 to other drainages to the south of the basin. Onsite observations indicates that hydrology supporting Wetland 4 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography and adjacent roadway. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The observed plants at the Wetland 4 observation pair included *Bassia scoparia* (FACU), *Poa pratensis* (FACU), and *Bromus inermis* (UPL) as dominant upland species and *Spartina pectinata* (FACW) as the dominant wetland species. The mapped soil series (NRCS, 2021) for this location was Tonka silt loam, 0 to 1% slopes. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 4's soil observation (Obs. 3W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9), FAC-Neutral Test (D5), and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff, groundwater recharge, and stormwater storage. Wetland soils consisted of loams to the recorded boring depth of 10 inches. Soil observation 3W meets the depleted matrix (F3) indicator within the first 10-inches of soil profile. The indicator requires a depleted matrix six inches in thickness starting within 10 inches below the surface. The hydric soil borings had 10YR 4/2 matrix at 90% from 0-10 inches, with redoximorphic concentrations (10%) throughout the profile.

Wetland 5 – 0.05 acres

Wetland 5 (Photo 7 in Appendix C) consists of 0.05 acres of palustrine, emergent, temporarily flooded, farmed wetland (PEM1A) (Table 1, Wetlands). Wetland 5 is located along the northside of the north railroad siding along the edge of the south Port facilities. On-site observations indicates that hydrology supporting Wetland 5 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 5 observation pair included Poa pratensis (FACU) as dominant upland species and *Phalaris arundinacea* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 5's soil observation (Obs. 2W-2) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of mostly sandy loams to the Port of ND-CRISI Grant January 2022 Field Aquatic Resource Delineation Report recorded boring depth of 16-inches. Soil observation 2W-2 meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The indicator requires a layer that is at least 4 inches thick, starting within a depth 8 inches from the soil surface, and has either: a. a matrix value of 3 or less and a chroma of 1 or less and 2 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings, or b. matrix value of 3 or less and chroma of 2 or less and 5 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings (NRCS, 2018). The hydric soil borings had 10YR 2/1 matrix at 90% from 8-14 inches, with redoximorphic concentrations (10%) throughout the redox profile.

Wetland 6 – 0.25 acres

Wetland 6 (Photo 8 (in background) in Appendix C) consists of 0.25 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, **Wetlands)**. Wetland 6 is in the field east of the Port Office building and scale area. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 6 observation pair included Bassia scoparia (FACU), Poa pratensis (FACU), and Bromus inermis (UPL) as dominant upland species and Phalaris arundinacea (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 6's soil observation (Obs. 4W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 10-inches. Soil observation 4W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The indicator requires a layer that is at least 4 inches thick, starting within a depth 8 inches from the soil surface, and has either: a. a matrix value of 3 or less and a chroma of 1 or less and 2 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings, or b. matrix value of 3 or less and chroma of 2 or less and 5 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings.

(NRCS, 2018). The hydric soil borings had 10YR 2/1 matrix at 95% from 0-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 7 – 0.04 acres

Wetland 7 (Photo 8 (in foreground) in Appendix C) consists of 0.04 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 7 is in the field east of the Port Office building and scale. It is located just northwest of Wetland 6. On-site observations indicates that hydrology supporting Wetland 7 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair (with the upland point shared with Wetland 6), changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 6 observation pair included Bassia scoparia (FACU), Poa pratensis (FACU), and Bromus inermis (UPL) as dominant upland species and *Phalaris arundinacea* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 7's soil observation (Obs. 4W2) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 16-inches. Soil observation 4W2 meets the depleted matrix (F3) indicator within the first 14-inches of soil profile. The indicator requires a depleted matrix six inches in thickness starting within 10 inches below the surface. The hydric soil borings had 10YR 4/2 matrix at 90% from 8-16 inches, with redoximorphic concentrations (10%) throughout the profile.

Wetland 8 – 0.55 acres

Wetland 8 (Photo 9 in Appendix C) consists of 0.55 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 8 is in the field east of the Port Office building and scale. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Vallers loam, saline, 0 to 1% slopes. The observed plants at the Wetland 1 observation pair included *Elymus repens* (FACU), *Poa pratensis* (FACU), and *Bromus inermis* (UPL) as dominant upland species and *Phalaris arundinacea* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 8's soil observation (Obs. 1W-2) was problematic due to being mixed fill. Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and clay loams to the recorded boring depth of 14-inches. Soil observation 1W-2's soils were deemed problematic and disturbed.

Wetland 9 – 0.44 acres

Wetland 9 (Photo 10 in Appendix C) consists of 0.44 acres of palustrine, emergent, temporarily flooded excavated ditch wetland (PEM1Ax) (Table 1, **Wetlands)**. Wetland 9 is in the south ditch of County Road 12 just east of the Port's approach. On-site observations indicates that hydrology supporting Wetland 9 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography and roadway. The wetland boundaries were determined by observing changes in the plant community and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamerly-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 9 observation pair included Elymus repens (FACU) and Bromus inermis (UPL) as dominant upland species and Typha angustifolia (OBL) and Phalaris arundinacea (FACW) as the dominant wetland species. No soil observation was conducted due to likely utility conflicts within the ditch right-of-way. Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area and roadway.

Wetland 10a – 0.29 acres

Wetland 10a (Photos 11-13 in Appendix C) consists of 0.29 acres of palustrine, emergent, seasonally flooded ditch wetland (PEM1Cx) (Table 1, Wetlands). Wetland 10a is a ditch wetland that connects to a larger basin to the

west. On-site observations indicates that hydrology supporting Wetland 10a is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography and the adjacent roadway. The wetland boundaries were determined by conducting by observing changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 1 observation pair included *Elymus repens* (FACU) and *Bromus inermis* (UPL) as dominant upland species and *Typha angustifolia* (OBL) and *Phalaris arundinacea* (FACW) as the dominant wetland species. No soil observation was conducted due to the likelihood of utility conflicts. Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area.

Wetland 10b – 30.24 acres

Wetland 10b (Photos 11-13 in Appendix C) consists of 30.24 acres of palustrine, emergent, semi-permanently flooded wetland (PEM1F) (Table 1, **Wetlands)**. Wetland 10b is a large depressional wetland on the north side of the County Highway. On-site observations indicates that hydrology supporting Wetland 10b is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a three soil observation pairs, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamerly-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 10 observation pairs included *Elymus repens* (FACU) and *Elymus trachycaulus* (FACU) as dominant upland species. Brassica rapa (canola) is introduced and cultivated in areas observed. Typha angustifolia (OBL), Spartina pectinata (FACW), Hordeum jubatum (FACW), and Phalaris arundinacea (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 10b's soil observations (Obs. 9W, 11W, 13W) were depleted matrix (F3) and redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and silt loams to the recorded boring depths. Soil observation 9W meets the depleted matrix (F3) indicator within the first 10-inches of soil profile. Soil observation 11W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. Soil observation 13W meets the depleted matrix (F3) indicator within the first 12-inches of soil profile. Soil observation 13W meets the depleted matrix (F3) indicator within the first 12-inches of soil profile. The depleted matrix indicator requires a depleted matrix six inches in thickness starting within 10 inches below the surface. Soil observation 11W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The indicator requires a layer that is at least 4 inches thick, starting within a depth 8 inches from the soil surface, and has either: a. a matrix value of 3 or less and a chroma of 1 or less and 2 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings, or b. matrix value of 3 or less and chroma of 2 or less and 5 percent or more distinct or prominent redox concentrations occurring as soft masses or pore linings (NRCS, 2018).

Wetland 11 – 0.04 acres

Wetland 11 (Photo 14 in Appendix C) consists of 0.04 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 11 is in a small satellite depression southeast of Wetland 10b. On-site observations indicates that hydrology supporting Wetland 11 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by observing changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 11 included *Elymus repens* (FACU) and *Bromus inermis* (UPL) as dominant upland species and Typha angustifolia (OBL) and Spartina pectinata (FACW) as the dominant wetland species. A *Salix amygdaloides* shrub was also noted. A separate soil observation pair was not conducted for Wetland 11. In a wetter year it likely is an extension of Wetland 10b. Soil observation pair 9U & 9W was located nearby. Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area.

Wetland 12 – 4.18 acres

Wetland 12 (Photos 15-16 in Appendix C) consists of 4.18 acres of palustrine, emergent, semi-permanently flooded wetland (PEM1F) (Table 1, **Wetlands)**. Wetland 12 is along the east side of the east Port property field. On-site observations indicates that hydrology supporting Wetland 12 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting soil observation pairs, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Tonka silt loams, 0 to 1% slopes. The observed plants at the Wetland 12 observation pairs include *Elymus repens* (FACU) and Elymus trachycaulus (FACU) as dominant upland species. Spartina pectinata (FACW) and Phalaris arundinacea (FACW) are the dominant wetland species. Brassica rapa (UPL) has been planted adjacent to Observation #10. Soil observation 1W-3W & 10W meet the depleted matrix (F3) and redox dark surface indicators within the first 10-inches of soil profile (Field Indicators, USDA/NRCS, 2018). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area.

Wetland 13 – 0.60 acres

Wetland 13 (Photo 17 in Appendix C) consists of 0.60 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 13 is located north of the larger Wetland 10 in the east Port field (Figure 2B, Wetland Delineation Map). On-site observations indicates that hydrology supporting Wetland 13 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamerly-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 13 observation pair (Obs 12) included *Elymus repens* (FACU) and *Elymus trachycaulus* (FACU) as dominant upland species and *Typha angustifolia* (OBL) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 13's soil observation (Obs. 12W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9), FAC-Neutral Test (D5), and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 16-inches. Soil observation 12W meets the depleted matrix (F3) indicator within the first 10-inches of soil profile. The indicator requires a depleted matrix six inches in thickness starting within 10 inches below the surface. The hydric soil borings had 10YR 4/2 matrix at 95% from 4-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 14a (0.07), 14b (2.90), & 14c (0.06) - 3.03 acres

Wetland 14 (Photos 18-19 in Appendix C) consists of 3.03 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 14 is located within and extending from 42nd St NE's east ditch. On-site observations indicates that hydrology supporting Wetland 14 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamerly-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 14 observation pairs included Brassica rapa (UPL) as dominant upland species and Spartina pectinata (FACW) and Typha angustifolia (OBL). The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 14's soil observation (Obs. 18W & 19W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9), FAC-Neutral Test (D5), and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area.

Wetland 15a (0.03), 15b (0.3), 15c (0.09), 15d (0.24), 15e (0.02), 15f (0.02) & 15g (0.02) – 0.45 acres

Wetland 15 consists of a set of small basins (Photos 20-21 in Appendix C) consists of 0.04 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 15's small depressions are just northeast of Wetland 14 along the edge of the canola field. On-site observations indicates that hydrology supporting Wetland 15 is likely from surface water ponding. The

main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 15 observation pair included *Elymus repens* (FACU) and *Elymus trachycaulus* (FACU) as dominant upland species and *Typha angustifolia* (OBL) and *Spartina pectinata* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 15's soil observation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 16-inches. Soil observation 17W meets the depleted matrix (F3) indicator within the first 16-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 95% from 8-16 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 16 – 0.17 acres

Wetland 16 (Photo 22 in Appendix C) consists of 0.17 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 16 is located at the base of a small rise to the north near the discharge location of OW4. On-site observations indicates that hydrology supporting Wetland 16 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Barnes loams, 3 to 6% slopes. The observed plants at the Wetland 16 observation pair included Elymus repens (FACU) and Elymus trachycaulus (FACU) as dominant upland species and Typha angustifolia (OBL) and Spartina pectinata (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 16's soil observation (Obs. 16W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 16-inches. Soil observation 16W meets the depleted matrix (F3) indicator within the first 16-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 95% from 8-16 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 17 – 0.52 acres

Wetland 17 (Photo 23 in Appendix C) consists of 0.52 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 17 is in a swale near the center of the east field area south of Wetlands 16, 18, & 19. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Barnes loam, 3 to 6% slopes. The observed plants at the Wetland 17 observation pair included *Brassica rapa* (UPL) as dominant upland species and Typha angustifolia (OBL) and Spartina pectinata (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 17's soil observation (Obs. 14W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 10-inches. Soil observation 14W meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 4-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 18 – 0.20 acres

Wetland 18 (Photo 24 in Appendix C) consists of 0.20 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 18 is located at the base of the hill and near the discharges of OW3 & OW 4. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Barnes loam, 3 to 6% slopes. The observed plants at the Wetland 18 observation pair included *Elymus repens* (FACU) and *Elymus trachycaulus* (FACU) as dominant upland species and *Hordeum jubatum* (FACW) and *Phalaris arundinacea* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 6's soil observation (Obs. 15W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and silt loams to the recorded boring depth of 16-inches. Soil observation 15W meets the depleted matrix (F3) indicator within the first 16-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 95% from 8-16 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 19 – 0.17 acres

Wetland 19 (Photo 24 in Appendix C) consists of 0.17 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 6 is in the field east of the Port Office building and north of the rail siding within the port's operations area. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. . The observed plants at the Wetland 19 observation pair included *Elymus repens* (FACU) and *Elymus* trachycaulus (FACU) as dominant upland species and Typha angustifolia (OBL) and Spartina pectinata (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 19's soil observation (Obs. 15W-2) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 16-inches. Soil observation 15W-2 meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 4-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 20 – 0.50 acres

Wetland 20 (Photo 25 in Appendix C) consists of 0.50 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 20 is a small basin where some field swales discharge. On-site observations indicates that hydrology supporting Wetland 20 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 20 observation pair included planted and harvested *Brassica rapa* (UPL) as dominant upland species and *Hordeum jubatum* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 20's soil observation (Obs. 4W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 16-inches. Soil observation 8W-2 meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 4-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 21 – 0.11 acres

Wetland 21 (Photo 26 in Appendix C) consists of 0.11 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). On-site observations indicates that hydrology supporting Wetland 21 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Tonka silt loams, 0 to 1% slopes. The observed plants at the Wetland 21 observation pair included *Brassica rapa* (UPL) as dominant upland and wetland area species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 21's soil observation (Obs. 2W-3) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 16-inches. Soil observation 2W-3 meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 4-10 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 22 – 0.21 acres

Wetland 22 (Photo 27 in Appendix C) consists of 0.21 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 22 is a basin where discharges OW5 pond before continuing draining through OW3. On-site observations indicates that hydrology supporting Wetland 22 is likely from surface water runoff ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Tonka silt loam, 0 to 1% slopes. The observed plants at the Wetland 22 observation pair included *Brassica rapa* (UPL) as dominant upland species and *Hordeum jubatum* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 22's soil observation (Obs. 7W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9), FAC-Neutral Test, and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 22-inches. Recent sediment overlays the native soils in soil observation 7W which meets the depleted matrix (F3) indicator between 16-22-

inches of soil profile. The hydric soil borings had 10YR 4/1 matrix at 80% from 16-22 inches, with redoximorphic concentrations (20%).

Wetland 23 – 0.07 acres

Wetland 23 (Photo 28 in Appendix C) consists of 0.07 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 23 is a small depressional farmed wetland near the east bounds of the Port fields. On-site observations indicates that hydrology supporting Wetland 23 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Heimdal-Emrick loams, 0 to 3% slopes. The observed plants at the Wetland 23 observation pair included cultivated *Brassica rapa* (UPL) as the only plant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 23's soil observation (Obs. 4W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of clay and silty loams to the recorded boring depth of 10-inches. Soil observation 4W meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 90% from 0-10 inches, with redoximorphic concentrations (10%) throughout the redox profile.

Wetland 24 – 0.11 acres

Wetland 24 (Photo 29 in Appendix C) consists of 0.11 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 24 is a small depressional farmed wetland near the east bounds of the Port fields. On-site observations indicates that hydrology supporting Wetland 24 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris loams, 1 to 5% slopes. The observed plants at the Wetland 24 observation pair included cultivated *Brassica rapa* (UPL) as the only plant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 24's soil observation (Obs. 5W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of clay and silty loams to the recorded boring depth of 10-inches. Soil observation 5W meets the depleted matrix (F3) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 90% from 0-10 inches, with redoximorphic concentrations (10%) throughout the redox profile.

Wetland 25 – 0.57 acres

Wetland 25 (Photo 30 in Appendix C) consists of 0.57 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 25 is just northwest of the former FEMA trailer park in the SE corner of the junction of 42nd Stret NE and 19th Ave NE. On-site observations indicates that hydrology supporting Wetland 25 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris loams, 1 to 5% slopes. The observed plants at the Wetland 25 observation pair included Elymus repens (FACU) and Elymus trachycaulus (FACU) as dominant upland species and Typha angustifolia (OBL) and Hordeum *jubatum* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 25's soil observation (Obs. 11W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of silty loams to the recorded boring depth of 18-inches. Soil observation 11W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 2/1 matrix at 95% from 4-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 26 – 0.03 acres

Wetland 26 (Photo 31 in Appendix C) consists of 0.03 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 26 is adjacent to 19th Ave NE at a culvert crossing. On-site observations indicates that hydrology supporting Wetland 26 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris loams, 1 to 5% slopes. The observed plants at the Wetland 26 observation pair included *Brassica rapa* (UPL) as dominant upland and wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 26's soil observation (Obs. 12W-2) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 10-inches. Soil observation 12W-2 meets the depleted matrix (F3) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 90% from 0-10 inches, with redoximorphic concentrations (10%) throughout the redox profile.

Wetland 27 – 0.18 acres

Wetland 27 (Photo 32 in Appendix C) consists of 0.18 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 27 is located north of the active gravel pit on the property. On-site observations indicates that hydrology supporting Wetland 27 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Buse-Barnes-Darnen loams, 9 to 35% slopes. The observed plants at the Wetland 27 observation pair included *Bouteloua dactyloides* (FACU) and *Bouteloua gracilis* (FACU) as dominant upland species and *Typha angustifolia* (OBL) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 6's soil observation (Obs. 32W) was depleted matrix (F3). Hydrology indicators observed include saturation visible on aerial imagery (C9), FAC-Neutral Test (D5), and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 10-inches. Soil observation 32W meets the depleted matrix (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 4/2 matrix at 95% from 0-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 28/OW7 – 0.04 acres

Wetland 28 (Photo 33 in Appendix C) consists of 0.04 acres of palustrine, emergent, seasonally flooded excavated wetland (PEM1Cx) (Table 1, Wetlands). Wetland 28 is the discharge location for excess water discharges from the three gravel wash ponds to the north of this small depression and swale. On-site observations indicates that hydrology supporting Wetland 28 is generally artificial and derives from gravel wash plant discharges primarily. The wetland boundaries were determined by changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamerly-Wyard loams, 0 to 3% slopes. A soil observation was not conducted at this feature which appears to be recent and manmade. The observed plants at the Wetland 28/OW9 consisted of *Elymus repens* (FACU) and *Bromus inermis* (UPL) as dominant upland species and *Typha angustifolia* (OBL) and *Phalaris arundinacea* (FACW) as the dominant wetland species. Hydrology indicators observed include saturation (A3) (Army Corps of Engineers, 1987).

This wetland acts as a discharge location for excess wash water and intercepts stormwater runoff directing it to the OW7 stormwater pond basin downstream.

Wetland 29 – 0.84 acres

Wetland 29 (Photo 34 in Appendix C) consists of 0.84 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 29 is in the canola field north of the gravel pit operations. On-site observations indicates that hydrology supporting Wetland 29 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris-Tonka loams, 0 to 3% slopes. The observed plants at the Wetland 29 observation pair were planted *Brassica rapa* (UPL) stubble. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 29's soil observation (Obs. 31W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and sandy loams to the recorded boring depth of 10-inches. Soil observation 31W meets the redox dark surface (F6) indicator within the first 10-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 90% from 6-10 inches, with redoximorphic concentrations (10%).

Wetland 30 – 1.21 acres

Wetland 30 (Photo 35 in Appendix C) consists of 1.21 acres of palustrine, emergent, seasonally flooded wetland (PEM1C) (Table 1, Wetlands). Wetland 30 is just north of the large excavation for extending railroad tracks near gravel pit. On-site observations indicates that hydrology supporting Wetland 6 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris-Tonka loams, 0 to 3% slopes. The observed plants at the Wetland 30 observation pair included Brassica rapa (UPL) as dominant upland species and Spartina pectinata (FACW) and *Phalaris arundinacea* (FACW) as the dominant wetland species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 30s soil observation (Obs. 23W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams and silty loams to the recorded boring depth of 14-inches. Soil observation 23W meets the redox dark surface (F6) indicator within the first 14-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 2-14 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 31 – 0.46 acres

Wetland 31 (Photo 36 in Appendix C) consists of 0.46 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 31 is located just north of Wetland 29. On-site observations indicates that hydrology supporting Wetland 29 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris-Tonka loams, 0 to 3% slopes. The observed plants at the Wetland 31 observation pair consists of *Brassica rapa* (UPL) as dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 31's soil observation (Obs. 30W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 18-inches. Soil observation 30W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 32 – 0.29 acres

Wetland 32 (Photo 37 in Appendix C) consists of 0.29 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 32 is in east side of the field. On-site observations indicates that hydrology supporting Wetland 29 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris-Tonka loams, 0 to 3% slopes. The observed plants at the Wetland 31 observation pair consists of *Brassica rapa* (UPL) as dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 31's soil observation (Obs. 30W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987). This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 18-inches. Soil observation 30W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 33 – 1.46 acres

Wetland 33 (Photo 38 in Appendix C) consists of 1.46 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 33 is centrally located in the field north of the gravel pit. On-site observations indicates that hydrology supporting Wetland 33 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Souris-Tonka loams, 0 to 3% slopes. The observed plants at the Wetland 33 observation pair consists of *Brassica rapa* (UPL) as the dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 33's soil observation (Obs. 28W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 18-inches. Soil observation 28W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 34 – 0.36 acres

Wetland 34 (Photo 39 in Appendix C) consists of 0.36 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 34 is located near the north edge of the west field. On-site observations indicates that hydrology supporting Wetland 34 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Tonka-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 34 observation pair consists of planted *Brassica rapa* stubble (UPL) as the dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 34's soil observation (Obs. 28W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of loams to the recorded boring depth of 18-inches. Soil observation 28W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 35 – 0.17 acres

Wetland 35 (Photo 40 in Appendix C) consists of 0.17 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 35 is located near the northeast corner of the west field. On-site observations indicates that hydrology supporting Wetland 35 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Tonka-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 35 observation pair consists of planted *Brassica rapa* stubble (UPL) as the dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 35's soil observation (Obs. 20W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of clay loams and loams to the recorded boring depth of 18-inches. Soil observation 20W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Wetland 36 - 0.20 acres

Wetland 36 (Photo 40 in Appendix C) consists of 0.20 acres of palustrine, emergent, temporarily flooded wetland (PEM1A) (Table 1, Wetlands). Wetland 36 is located near the northeast corner of the west field. On-site observations indicates that hydrology supporting Wetland 36 is likely from surface water ponding. The main contributors of hydrology are likely snowmelt and runoff from the surrounding topography. The wetland boundaries were determined by conducting a soil observation pair, changes in the plant community, and the general topography of the suspected wetland. The mapped soil series (NRCS, 2021) for this location was Hamlet-Tonka-Wyard loams, 0 to 3% slopes. The observed plants at the Wetland 36 observation pair consists of planted *Brassica rapa* stubble (UPL) as the dominant species. The hydric soil indicator (Field Indicators, USDA/NRCS, 2018) found in the Wetland 36's soil observation (Obs. 20W) was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9) and geomorphic position (D2) (Army Corps of Engineers, 1987).

This wetland acts as a settling basin for sediment laden runoff and stormwater storage for the surrounding area. Wetland soils consisted of clay loams and loams to the recorded boring depth of 18-inches. Soil observation 21W meets the redox dark surface (F6) indicator within the first 12-inches of soil profile. The hydric soil borings had 10YR 3/1 matrix at 95% from 6-12 inches, with redoximorphic concentrations (5%) throughout the redox profile.

Additional Suspected Wet Areas

Seven additional soil observations (3U-3, 6U, 23U, 24U, 25U, 26U, and 29U) were conducted in areas noted as having a wetness signature in the 2011 Google Earth image (**see Appendix C – Photographs, Suspect Wetland/Photo Map**). Two were small basin areas and one was completed within the swale bottom near a small drainage swale. The location of these observations is included in **Figure 2 – Aquatic Resource Delineation Map** and on the **Suspect Wetlands/Photo Map in Appendix C**. References to the NWI Map can be reviewed in **Appendix B, NWI Map**. All three observations found non-hydric soils below the tillage layers of the agricultural field. Vegetation was disturbed since the field was most recently used for canola production.

<u> 3U-3 –</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 41**). It is shown as two separate spots on NWI map. Soil observation 3U-3 was found to be non-hydric.

<u>6U –</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery. Soil observation 6U was found to be non-hydric.

<u>23U</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 42**). It is not shown on NWI map. Soil observation 23U was found to be non-hydric.

<u>24U-</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 43**). It is not shown on NWI map. Soil observation 24U was found to be non-hydric.

<u>25U-</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 44**). It is not shown on NWI map. Soil observation 25U was found to be non-hydric.

<u> 26U-</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 45**). It is not shown on NWI map. Soil observation 26U was found to be non-hydric.

<u> 29U-</u>

Small depression with wetness signature noted in some NAIP and CIR aerial imagery (**Appendix C, Photo 46**). It is not shown on NWI map. Soil observation 29U was found to be non-hydric.

Other Waters/Drainages

Other Water 1 (OW1)

OW1 is an excavated stormwater diversion ditch located along the southside of the Minot Milling property which discharges to Wetland 2's ditch network (**Appendix C**, **Photo 47**). Vegetation within the swale generally were upland (*Elymus repens* (FACU) and *Artemisia biennis* (FACU) or absent until it discharges into Wetland 2's ditch basins.

Other water indicators noted destruction of terrestrial vegetation, scour, and leaf litter disturbed or washed away.

Other Water 2 (OW2)

OW2 is an excavated stormwater diversion ditch connecting Wetland 4 to the ditch network along the rail siding south of the Port property (**Appendix C, Photo 48**). Vegetation within the ditch generally were wetland plants (*Typha angustifolia* (OBL)). Soils are expected to be like the Wetland 4 Observation Pair (3U/3W).

Other water indicators noted destruction of terrestrial vegetation, scour, and change in the plant community.

Other Water 3 (OW3)

OW3 is a minor rill from stormwater collecting along the west side of the canola field then flows to Wetland 22 and continues from Wetland 22's outlet and flows south in a deep rill to Wetland 19. Most of the rill is without vegetation or has *Artemisia biennis* (FACU) (**Appendix C, Photo 49**).

Other water indicators noted destruction of terrestrial vegetation and scour.

Other Water 4 (OW4)

OW4 is an excavated gravel pit which allows for groundwater and surface water to pond in the active gravel pit. The delineated bounds of OW4 include the tops and side slopes of the gravel pit. The pit was in active use and delineating the actual ponds inside was not conducted for safety concerns (**Appendix C, Photo 50**).

Other water indicators noted bed and banks.
Other Water 5 (OW5)

OW5 is an excavated stormwater pond which runoff is diverted to from the disturbed gravel operation on the Port property (**Appendix C, Photo 51**).

Other water indicators noted bed and banks.

Other Water 6 (OW6)

OW6 consists of three excavated gravel wash plant ponds for the aggregate operation on the Port property (**Appendix C, Photo 52**).

Other water indicators noted bed and banks.

Other Water 7 (OW7)

OW7 consists of a drainage swale connecting Wetland 28 to OW5 (**Appendix C, Photo 53**).

Other water indicators noted destruction of terrestrial vegetation and scour.

Other Water 8 (OW8)

OW8 consists of a stormwater ditch collecting runoff from the west railyard area of the Port (**Appendix C, Photo 54**).

Other water indicators noted destruction of terrestrial vegetation and scour.

Other Water 9 (OW9)

OW9 consists of a drainage ditch draining a portion of the former FEMA mobile home park which disperses at a riprap apron with the diffuse flows eventually ending up in OW3 and Wetland 22.

Other water indicators noted destruction of terrestrial vegetation and scour.

Other Water 10 (OW10)

OW10 consists of a drainage ditch draining a portion of the former FEMA mobile home park which disperses at a riprap apron with the diffuse flows eventually ending up in OW3 and Wetland 22.

Other water indicators noted destruction of terrestrial vegetation and scour.

Other Water 11 (OW11)

OW11 consists of a drainage ditch draining a portion of the former FEMA mobile home park which disperses at a riprap apron with the diffuse flows eventually ending up in OW3 and Wetland 22.

Other water indicators noted destruction of terrestrial vegetation and scour.

Aquatic Resources Interstate Commerce Connections

Some identified features could provide suitable habitat for migratory waterfowl or other birds. No fishing conditions exist for any of the identified resources.

Biological and Cultural Considerations

No sensitive plant species are known by the report author to inhabit the Study Area. Some of the westernmost pasture areas (north of Port rail and aggregate area) may be possible Dakota skipper habitat. Separate biological and cultural reports have been or will be submitted to their respective regulatory or approval agencies.

Aquatic Resources Tables

Wetland Number	Test Hole (in wetland)	Location	LAT North (Dec. Deg.)	LONG West (Dec. Deg.)	Field Cowardin Classifica tion	Wetland Type	Wetland Size (acres)
1	1W	Sec 22 , T155N, R82W	48.23737231	-101.2080063	PEM1C	Basin	0.01
2a,2b,2c,2 d,2e,2f, 2g	2W	Sec 22 , T155N, R82W	48.23735952	-101.2092208	PEM1Ax	Ditch	0.22
3	NA	Sec 21 , T155N, R82W	48.23729494	-101.2141971	PEM1C	Basin	0.30
4	3W	Sec 21 , T155N, R82W	48.23806409	-101.2183611	PEM1C	Basin	3.79
5	2W-2	Sec 21 , T155N, R82W	48.23777399	-101.2208501	PEM1A	Basin	0.05
6	4W	Sec 21 , T155N, R82W	48.23918085	-101.2215042	PEM1A	Basin	0.25
7	4W-2	Sec 21 , T155N, R82W	48.23925368	-101.2219413	PEM1A	Basin	0.04
8	1W-2	Sec 21 , T155N, R82W	48.23866729	-101.2259007	PEM1A	Basin	0.55
9	NA	Sec 21 , T155N, R82W	48.2398945	-101.2247457	PEM1Ax	Ditch	0.44
10a & 10b	9W, 11W, 13W	Sec 16 , T155N, R82W	48.242679	-101.226589	PEM1F	Ditch (10a)/ Basin (10b)	30.53

Table 1. Wetlands.

11	9W	Sec 16 , T155N, R82W	48.242192	-101.223558	PEM1A	Basin	0.01
12	1W-3, 10W	Sec 16 , T155N, R82W	48.24289196	-101.2216463	PEM1/ ABF	Basin	4.18
13	12W	Sec 16 , T155N, R82W	48.24480167	-101.2275575	PEM1C	Basin	0.60
14a, 14b, 14c	18W, 19W	Sec 16 , T155N, R82W	48.24644469	-101.2280905	PEM1C	Ditch, Basin, Ditch	3.04
15a, 15b, 15c, 15d, 15e, 15f, 15g	17W	Sec 16 , T155N, R82W	48.24722955	-101.2270503	PEM1A	Small Basins	0.45
16	16W	Sec 16 , T155N, R82W	48.24863999	-101.2259238	PEM1A	Basin	0.17
17	14W	Sec 16 , T155N, R82W	48.24725746	-101.2255217	PEM1A	Basin	0.52
18	15W-2	Sec 16 , T155N, R82W	48.24815326	-101.2246298	PEM1A	Basin	0.20
19	15W	Sec 16 , T155N, R82W	48.24809963	-101.2241088	PEM1A	Basin	0.17
20	8W	Sec 16 , T155N, R82W	48.24702788	-101.2234257	PEM1Af	Farmed Basin	0.50
21	2W-3	Sec 16 , T155N, R82W	48.24669847	-101.2203262	PEM1Af	Farmed Basin	0.11
22	7W	Sec 16 , T155N, R82W	48.25182987	-101.2219131	PEM1A	Basin	0.21
23	4W-3	Sec 16 , T155N, R82W	48.25269153	-101.2206106	PEM1Af	Farmed Basin	0.07
24	5W	Sec 16 , T155N, R82W	48.25389271	-101.2203841	PEM1Af	Farmed Basin	0.11
25	11W-2	Sec 16 , T155N, R82W	48.25408234	-101.2301312	PEM1A	Basin	0.57
26	12W-2	Sec 16 , T155N, R82W	48.2544305	-101.2228891	PEM1Af	Farmed Basin	0.03
27	32W	Sec 17 , T155N, R82W	48.25178785	-101.2412466	PEM1C	Basin	0.18
28	NA	Sec 17 , T155N, R82W	48.25100193	-101.2345112	PEM1A	Dischar ge Basin	0.04
29	31W	Sec 8 , T155N, R82W	48.25605473	-101.2359793	PEM1Af	Farmed Basin	0.84
30	23W	Sec 8 , T155N, R82W	48.25642612	-101.2392378	PEM1C	Basin	1.21
31	30W	Sec 8 , T155N, R82W	48.25679555	-101.2353945	PEM1Af	Farmed Basin	0.46
32	27W	Sec 8 , T155N, R82W	48.2568397	-101.2330372	PEM1Af	Farmed Basin	0.29
33	28W	Sec 8 , T155N, R82W	48.25769256	-101.2348413	PEM1Af	Farmed Basin	1.46
34	22W	Sec 8 , T155N, R82W	48.26114588	-101.2336475	PEM1Af	Farmed Basin	0.36
35	20W	Sec 8 , T155N, R82W	48.26094569	-101.2321879	PEM1Af	Farmed Basin	0.17
36	21W	Sec 8 , T155N, R82W	48.26141107	-101.2320877	PEM1Af	Farmed Basin	0.20
						TOTAL	52.96

* OTHER WATERS									
Number	Location	LAT North (Dec. Deg.)	LONG West (Dec.Deg.)	Local Waterway Name	Tributary To	Field or NWI Cowardin Classification	OW Size (acres)	OW Length (feet)	Other Water Type
OW1	Sec 22 , T155N, R82W	48.238293	-101.206335	NA	NA	PEM1Ax	0.09	1375	Ditch
OW2	Sec 21 , T155N, R82W	48.237311	-101.218104	NA	NA	PEM1Ax	0.07	433	Ditch
OW3	Sec 16 , T155N, R82W	48.249624	-101.221603	NA	NA	R4SB5	0.12	267	Gully
OW4	Sec 17 , T155N, R82W	48.250621	-101.241221	NA	NA	PEM1Fx	12.20	NA	Gravel Pit Pond
OW5	Sec 17 , T155N, R82W	48.251046	-101.237739	NA	NA	PEM1Fx	1.18	NA	Stormwater Pond
OW6	Sec 17 , T155N, R82W	48.252037	-101.252037	NA	NA	PEM1Fx	1.58	NA	Gravel Wash Ponds
OW7	Sec 17 , T155N, R82W	48.251054	-101.235973	NA	NA	R4SB7	0.04	591	SW Drainage Swale
OW8	Sec 17 , T155N, R82W	48.247251	-101.241672	NA	Livingston Creek	R4SB7	0.03	386	SW Drainage Swale
OW9	Sec 16 , T155N, R82W	48.253805	-101.224265	NA	NA	R4SB7	0.02	337	SW Drainage Swale
OW10	Sec 16 , T155N, R82W	48.252555	-101.224374	NA	NA	R4SB7	0.02	260	SW Drainage Swale
OW11	Sec 16 , T155N, R82W	48.252065	-101.224675	NA	NA	R4SB7	0.05	720	SW Drainage Swale
					Т	OTALS	15.4	4369	

Table 2. Other Water/Drainage

** Other Waters (OW) include: 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; all interstate waters, including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters; all impoundments of waters otherwise defined as waters of the United States under this definition; tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) the territorial seas.

Chapter 5. Conclusion

Off-site references were reviewed prior to and after the onsite, field wetland delineations performed in October and November 2021. The off-site and onsite investigations revealed 52.96 acres of wetland along with 15.4 acres and 4,369 linear feet of non-wetland other waters located within the Study Area (see Figures 2.1 and 2.2).

A determination regarding jurisdiction by the U.S. Army Corps of Engineers should be conducted prior to any activities that may impact wetlands or other waters identified in this report. This wetland delineation and OHWM determination meets the standards and criteria described in *1987 U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region* (U.S. Army Corps of Engineers, 2010) and *U.S. Army Corps of Engineers Regulatory Guidance Letter No. 05-05* (U.S. Army Corps of Engineers, 2005). The results and conclusions represent the conditions at the time of the onsite, field investigation.

If you have any questions, please feel free to call me at (701) 837-8737.

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04	03	Ū2	01	06	05	04	03		
		4TH AVE	64TH ST NE					MINOT INTERMODAL CRISI	WARD COUNTY, NORTH DAKOTA
-					-		-	CRISI Project No	
	1			-16	other Designation of the local division of t	and the second second		1	
J		and and	-		(AL)	The	UT STATE	R21003 Scale:	1:1000
כ						176		R21003 Scale: Date:	1:1000 01/20/2022

Legend



0 325 650 Feet





NDAWN daily data for September 1, 2021 to November 9, 2021

1	
	Minot
	Total
	fall
Date	(inch)
2021-09-01	0.00
2021-09-02	0.27
2021-09-03	0.00
2021-00-04	0.00
2021-00-04	0.00
2021-03-00	0.00
2021-09-00	0.00
2021-09-07	0.00
2021-09-00	0.00
2021-09-09	0.00
2021-09-10	0.00
2021-09-11	0.14
2021-09-12	0.01
2021-09-13	0.00
2021-09-14	0.00
2021-09-15	0.00
2021-09-16	0.00
2021-09-17	0.00
2021-09-18	0.00
2021-09-19	0.01
2021-09-20	0.00
2021-09-21	0.00
2021-09-22	0.00
2021-09-23	0.00
2021-09-24	0.00
2021-09-25	0.00
2021-09-26	0.00
2021-09-27	0.00
2021-09-28	0.00
2021-09-29	0.00
2021-09-30	0.00
2021-10-01	0.00
2021-10-02	0.00
2021-10-03	0.00
2021-10-04	0.00
2021-10-05	0.00
2021-10-06	0.00
2021-10-07	0.00
2021-10-08	0.01
2021-10-09	0.98
2021-10-10	0.00
2021-10-11	0.00
2021-10-12	0.00
2021-10-12	1 60
2021-10-13	0.04
2021-10-14	0.01
2021-10-15	0.00
2021-10-10	0.00
2021-10-17	0.00

2021-10-18	0.00
2021-10-19	0.00
2021-10-20	0.00
2021-10-21	0.00
2021-10-22	0.00
2021-10-23	0.00
2021-10-24	0.17
2021-10-25	0.00
2021-10-26	0.01
2021-10-27	0.00
2021-10-28	0.00
2021-10-29	0.00
2021-10-30	0.00
2021-10-31	0.00
2021-11-01	М
2021-11-02	М
2021-11-03	М
2021-11-04	М
2021-11-05	М
2021-11-06	м
2021-11-07	М
2021-11-08	М
2021-11-09	М
Totals:	9M 3.30
Max:	9M 1.69
Min:	9M 0.00

NDAWN daily data for September 1, 2021 to November 9, 2021

	<u>Minot</u>
	Avg
Data	Temp
2021-00-01	68
2021-09-01	62
2021-05-02	50
2021-09-03	61
2021-09-04	63
2021-09-06	60
2021-09-07	64
2021-09-08	61
2021-09-09	64
2021-09-10	71
2021-09-11	56
2021-09-12	59
2021-09-13	61
2021-09-14	58
2021-09-15	64
2021-09-16	53
2021-09-17	55
2021-09-18	69
2021-09-19	66
2021-09-20	56
2021-09-21	55
2021-09-22	62
2021-09-23	66
2021-09-24	51
2021-09-25	60
2021-09-26	65
2021-09-27	69
2021-09-28	72
2021-09-29	65
2021-09-30	58
2021-10-01	58
2021-10-02	56
2021-10-03	61
2021-10-04	64
2021-10-05	72
2021-10-06	73
2021-10-07	65
2021-10-08	56
2021-10-09	48
2021-10-10	57
2021-10-11	48
2021-10-12	44
2021-10-13	40
2021-10-14	39
2021-10-15	42
2021-10-16	48
2021-10-17	55

2021-10-19	40
2021-10-20	33
2021-10-21	32
2021-10-22	37
2021-10-23	37
2021-10-24	37
2021-10-25	44
2021-10-26	45
2021-10-27	47
2021-10-28	44
2021-10-29	48
2021-10-30	41
2021-10-31	33
2021-11-01	29
2021-11-02	27
2021-11-03	36
2021-11-04	43
2021-11-05	51
2021-11-06	50
2021-11-07	44
2021-11-08	40
2021-11-09	36
Averages:	53
Max:	73
Min:	27
Std. Dev.:	12




















































































U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY

DEERING SW QUADRANGLE NORTH DAKOTA - WARD COUNTY 7.5-MINUTE SERIES



Imagery Roads... Names.. Hydrogra Contours Doundar Public Wetland

U.S. National Grid 100,000 - In Sigure (2) ιυ

Grid Zone Design







DEERING SW, ND

2020







2020



EAST PORT



September 27, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- epwater Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine



NE PORT



September 27, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine



NW PORT



September 27, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- water Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine



SOUTH PORT



September 27, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine



SOUTHWEST PORT



September 27, 2021

Wetlands

- Estuarine and Marine Wetland

Estuarine and Marine Deepwater

- Freshwater Pond

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Lake Other Riverine



WEST PORT



September 27, 2021

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine



Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey



USDA

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
F2A	Tonka silt loam, 0 to 1 percent slopes	0	43.4	4.4%
F3A	Parnell silty clay loam, 0 to 1 percent slopes	0	3.3	0.3%
F101A	Hamerly-Wyard loams, 0 to 3 percent slopes	76	71.8	7.2%
F118A	Vallers loam, saline, 0 to 1 percent slopes	23	43.3	4.4%
F144B	Barnes-Buse loams, 3 to 6 percent slopes	152	15.4	1.6%
F147C	Buse-Barnes-Darnen Ioams, 3 to 9 percent slopes	>200	40.6	4.1%
F147F	Buse-Barnes-Darnen Ioams, 9 to 35 percent slopes	>200	28.0	2.8%
F150A	Hamlet-Tonka-Wyard complex, 0 to 3 percent slopes	61	6.1	0.6%
F157B	Barnes loam, 3 to 6 percent slopes	152	230.9	23.2%
F158A	Hamlet-Souris-Tonka complex, 0 to 3 percent slopes	61	44.1	4.4%
F160A	Hamlet-Souris loams, 1 to 3 percent slopes	61	21.5	2.2%
F160B	Hamlet-Souris loams, 1 to 5 percent slopes	61	134.6	13.5%
F229A	Heimdal-Emrick loams, 0 to 3 percent slopes	152	122.1	12.3%
F229B	Heimdal-Emrick loams, 3 to 6 percent slopes	152	8.5	0.9%
F272E	Sioux-Arvilla-Renshaw complex, 9 to 25 percent slopes	>200	16.0	1.6%
F273B	Sioux-Arvilla complex, 2 to 6 percent slopes	>200	14.5	1.5%
F275A	Renshaw loam, 0 to 2 percent slopes	>200	19.3	1.9%
F376A	Embden fine sandy loam, 0 to 2 percent slopes	122	44.5	4.5%
F377B	Embden-Egeland fine sandy loams, 2 to 6 percent slopes	122	25.6	2.6%

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
F384B	Maddock-Hecla loamy fine sands, 0 to 6 percent slopes	152	4.9	0.5%
F643B	Urban land-Udorthents loamy complex, 0 to 6 percent slopes	>200	28.6	2.9%
F650	Pits, gravel and sand	>200	1.2	0.1%
F651E	Udarents loamy, abandoned gravel pits, 0 to 25 percent slopes	>200	8.3	0.8%
F680D	Barnes-Sioux complex, 6 to 15 percent slopes	>200	8.0	0.8%
F998	Water, miscellaneous	>200	10.4	1.0%
Totals for Area of Interest			994.9	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters Aggregation Method: Dominant Component Component Percent Cutoff: None Specified Tie-break Rule: Lower Interpret Nulls as Zero: No Beginning Month: January Ending Month: December



USDA Natural Resources

Conservation Service



USDA

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
F2A	Tonka silt loam, 0 to 1 percent slopes	89	43.4	4.4%
F3A	Parnell silty clay loam, 0 to 1 percent slopes	94	3.3	0.3%
F101A	Hamerly-Wyard loams, 0 to 3 percent slopes	13	71.8	7.2%
F118A	Vallers loam, saline, 0 to 1 percent slopes	79	43.3	4.4%
F144B	Barnes-Buse loams, 3 to 6 percent slopes	8	15.4	1.6%
F147C	Buse-Barnes-Darnen loams, 3 to 9 percent slopes	2	40.6	4.1%
F147F	Buse-Barnes-Darnen loams, 9 to 35 percent slopes	3	28.0	2.8%
F150A	Hamlet-Tonka-Wyard complex, 0 to 3 percent slopes	29	6.1	0.6%
F157B	Barnes loam, 3 to 6 percent slopes	2	230.9	23.2%
F158A	Hamlet-Souris-Tonka complex, 0 to 3 percent slopes	13	44.1	4.4%
F160A	Hamlet-Souris loams, 1 to 3 percent slopes	4	21.5	2.2%
F160B	Hamlet-Souris loams, 1 to 5 percent slopes	4	134.6	13.5%
F229A	Heimdal-Emrick loams, 0 to 3 percent slopes	6	122.1	12.3%
F229B	Heimdal-Emrick loams, 3 to 6 percent slopes	6	8.5	0.9%
F272E	Sioux-Arvilla-Renshaw complex, 9 to 25 percent slopes	0	16.0	1.6%
F273B	Sioux-Arvilla complex, 2 to 6 percent slopes	0	14.5	1.5%
F275A	Renshaw loam, 0 to 2 percent slopes	0	19.3	1.9%
F376A	Embden fine sandy loam, 0 to 2 percent slopes	3	44.5	4.5%
F377B	Embden-Egeland fine sandy loams, 2 to 6 percent slopes	3	25.6	2.6%
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
-----------------------------	--	--------	--------------	----------------
F384B	Maddock-Hecla loamy fine sands, 0 to 6 percent slopes	3	4.9	0.5%
F643B	Urban land-Udorthents loamy complex, 0 to 6 percent slopes	3	28.6	2.9%
F650	Pits, gravel and sand	0	1.2	0.1%
F651E	Udarents loamy, abandoned gravel pits, 0 to 25 percent slopes	0	8.3	0.8%
F680D	Barnes-Sioux complex, 6 to 15 percent slopes	0	8.0	0.8%
F998	Water, miscellaneous	0	10.4	1.0%
Totals for Area of Interest			994.9	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. September 18, 2002. Hydric soils of the United States. Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present Component Percent Cutoff: None Specified Tie-break Rule: Lower





USDA Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey



USDA

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
F2A	Tonka silt loam, 0 to 1 percent slopes	43.4	4.4%
F3A	Parnell silty clay loam, 0 to 1 percent slopes	3.3	0.3%
F101A	Hamerly-Wyard loams, 0 to 3 percent slopes	71.8	7.2%
F118A	Vallers loam, saline, 0 to 1 percent slopes	43.3	4.4%
F144B	Barnes-Buse loams, 3 to 6 percent slopes	15.4	1.6%
F147C	Buse-Barnes-Darnen loams, 3 to 9 percent slopes	40.6	4.1%
F147F	Buse-Barnes-Darnen loams, 9 to 35 percent slopes	28.0	2.8%
F150A	Hamlet-Tonka-Wyard complex, 0 to 3 percent slopes	6.1	0.6%
F157B	Barnes loam, 3 to 6 percent slopes	230.9	23.2%
F158A	Hamlet-Souris-Tonka complex, 0 to 3 percent slopes	44.1	4.4%
F160A	Hamlet-Souris loams, 1 to 3 percent slopes	21.5	2.2%
F160B	Hamlet-Souris loams, 1 to 5 percent slopes	134.6	13.5%
F229A	Heimdal-Emrick loams, 0 to 3 percent slopes	122.1	12.3%
F229B	Heimdal-Emrick loams, 3 to 6 percent slopes	8.5	0.9%
F272E	Sioux-Arvilla-Renshaw complex, 9 to 25 percent slopes	16.0	1.6%
F273B	Sioux-Arvilla complex, 2 to 6 percent slopes	14.5	1.5%
F275A	Renshaw loam, 0 to 2 percent slopes	19.3	1.9%
F376A	Embden fine sandy loam, 0 to 2 percent slopes	44.5	4.5%
F377B	Embden-Egeland fine sandy loams, 2 to 6 percent slopes	25.6	2.6%
F384B	Maddock-Hecla loamy fine sands, 0 to 6 percent slopes	4.9	0.5%
F643B	Urban land-Udorthents loamy complex, 0 to 6 percent slopes	28.6	2.9%
F650	Pits, gravel and sand	1.2	0.1%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI			
F651E	Udarents loamy, abandoned gravel pits, 0 to 25 percent slopes	8.3	0.8%			
F680D	Barnes-Sioux complex, 6 to 15 percent slopes	8.0	0.8%			
F998	Water, miscellaneous	10.4	1.0%			
Totals for Area of Interest		994.9	100.0%			



Appendix C — Photographs

All photographs should be referenced with the location and the direction the photograph was taken, along with identifying the resources present within the photograph.

Port of ND Aquatic Resource Report Photo Log



Photo 1. Direction: South. Wetland 1 near small electrical substation, east of overpass, SW of Minot Milling.



Photo 2. Direction: East. Wetland 2a. West of overpass.



Photo 3. Direction: North. Wetland 2b. East ditch along surface road, east of overpass.



Photo 4. Direction: North. Wetland 2e. Extending towards CR 12 from substation approach.



Photo 5. Direction: NW. Wetland 3; standing water near containers.



Photo 6. Direction: North. Wetland 4 south ditch outlet in foreground.



Photo 7. Direction: ESE. Wetland 5; small basin with berm on east and south.



Photo 8. Direction: East. Wetland 7 foreground; Wetland 6 background.



Photo 9. Direction: East. Wetland 8 located just east of scale.



Photo 10. Direction: West. Wetland 9 from east end along CR 12.



Photo 11. Direction: West. Wetland 10a east end along CR12 northside ditch.



Photo 12. Direction: East. Wetland 10b west edge.



Photo 13. Direction: West. Wetland 10b east side.



Photo 14. Direction: North. Wetland 11 small basin in foreground.



Photo 15. Direction: South. Wetland 12 south edge of wetland.



Photo 16. Direction: Northwest. Wetland 12 northwest edge of wetland.



Photo 17. Direction: Northeast. Wetland 13.



Photo 18. Direction: East. Wetland 14b.



Photo 19. Direction: South. Wetland 14c.



Photo 20. Direction: North. Portion of Wetland 15 area.



Photo 21. Direction: South. Portion of Wetland 15 area.



Photo 22. Direction: Southeast. Wetland 16.



Photo 23. Direction: North. Wetland 17 south end.



Photo 24. Direction: Southwest. Wetland 18 right and Wetland 19 to left.



Photo 25. Direction: Northwest. Wetland 20.



Photo 26. Direction: South. Wetland 21.



Photo 27. Direction: South. Wetland 22.



Photo 28. Direction: Southeast. Wetland 23.



Photo 29. Direction: South. Wetland 24.



Photo 30. Direction: South. Wetland 25 in background.



Photo 31. Direction: East. Wetland 26 adjacent to road embankment.



Photo 32. Direction: East-southeast. Wetland 27.



Photo 33. Direction: South. Wetland 28/OW9 pond discharge basin.



Photo 34. Direction: North. Wetland 29 foreground; Wetland 31 in background.



Photo 35. Direction: East. Wetland 30.



Photo 36. Direction: South. Wetland 31.



Photo 37. Direction: West. Wetland 32.



Photo 38. Direction: East. Wetland 33 foreground.



Photo 39. Direction: South. Wetland 34 foreground.



Photo 40. Direction: West. Wetland 35 & 36 area.



Photo 41. Direction: East. Suspected wetland Obs. 3U-3.



Photo 42. Direction: West. Suspected wetland Obs. 23U.



Photo 43. Direction: North. Suspected wetland Obs. 24U.



Photo 44. Direction: South. Suspected wetland Obs. 25U.



Photo 45. Direction: West. Suspected wetland Obs. 26U.



Photo 46. Direction: East. Suspected wetland Obs. 29U.



Photo 47. Direction: East. OW1-D diversion/collection ditch along south side of mill property discharging to Wetland 2.



Photo 48. Direction: North. OW2-D foreground; Wetland 4 background.



Photo 49. Direction: South. OW3-Db.



Photo 50. Direction: South.

OW4 Gravel pit pond. This area is all disturbed not entirely flooded during the field work. Active borrow work was being conducted during the field work and the excavated area bounds delineated are from aerial imagery.



Photo 51. Direction: East. OW5 Stormwater Pond.



Photo 52. Direction: West. OW6 three gravel wash plant ponds. Discharges to Wetland 28.



Photo 53. Direction: North. OW6 outlet into Wetland 28; OW7 leads off to the left (west) of where photo was taken.



Photo 54. Direction: West. OW8 Stormwater swale.


Photo 55. Direction: North. Upland meadow near west project bounds.



Photo 56. Direction: North. Upland swale near west project bounds.



Photo 57. Direction: East. OW11 stormwater ditch. OW9 & OW10 were smaller ditches. All turned to small rills before discharging to Wetland 22.



Photo 58. Direction: East. OW11 riprap erosion control apron at end of ditch.

Scientific Name	GP	Common Name
Apocynum cannabinum	FAC	Indian-Hemp
Artemisia biennis	FACU	Biennial Wormwood
Bassia scoparia	FACU	Mexican-Fireweed
Bouteloua dactyloides	FACU	Buffalo Grass
Bouteloua gracilis	FACU	Blue Grama
Brassica rapa	UPL	Rape
Bromus inermis	UPL	Smooth Brome
Cirsium arvense	FACU	Canadian Thistle
Elymus repens	FACU	Creeping Wild Rye
Elymus trachycaulus	FACU	Slender Wild Rye
Hordeum jubatum	FACW	Fox-Tail Barley
Phalaris arundinacea	FACW	Reed Canary Grass
Poa pratensis	FACU	Kentucky Blue Grass
Populus deltoides	FAC	Eastern Cottonwood
Rumex crispus	FAC	Curly Dock
Sonchus arvensis	FAC	Field Sow-Thistle
Spartina pectinata	FACW	Freshwater Cord Grass
Taraxacum officinale	FACU	Common Dandelion
Typha angustifolia	OBL	Narrow-Leaf Cat-Tail

Minot Port of ND Project Plant List

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: <u>MINOT WARD</u> Sampling Date: <u>10/25/21</u>				
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>1U</u>				
Investigator(s): KEVIN PLOOF	_ Section, Township, Range: 22, 155, 82				
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>				
Subregion (LRR): F Lat:	48.23739879 Long: -101.2080223 Datum: NAD83				
Soil Map Unit Name: Vallers loam, saline, (0-1% slopes NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significant	tly disturbed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally μ	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 No X	— Is the Sampled Area				

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes NoX Yes NoX Yes NoX	Is the Sampled Area within a Wetland?	Yes NoX
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				-
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species x 2 =
		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)			01	FACU species x 4 =
1. <u>Bromus inermis</u>	45	Y	UPL	UPL species x 5 =
_{2.} Poa pratensis	20	Y	FACU	Column Totals: (A) (B)
3. Elymus repens	25	Y	FACU	
4 Taraxacum officinale	5	N	FACU	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Distaire)	95	= Total Cov	er	¹ Indicators of hydric soil and wotland hydrology must
Woody vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2		<u> </u>		Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5	Pare Ground in Horb Stratum 5		Present? Yes No	
Remarks				
Tromuno.				

Profile Desc	ription: (Describe t	to the dept	h needed	to docun	nent the	indicator	or confirm	the absence of i	indicators.)		
Depth	Matrix		Redox Features					_			
(inches)	<u>Color (moist)</u>		Color (n	noist)	%	Туре		Texture	Re	emarks	
	<u>10YR 2/1</u>	100		,							
4 - 8	10YR 2/1	_95	10YR	5/4	5	C	M	CL			
8-16	10YR 3/3	95	10YR	2/1	2	С	М	loam			
			10YR	8/1	3	С	М	loam			
					. <u> </u>			·			
							<u> </u>	·			
¹ Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced N	Aatrix, CS	S=Covere	d or Coate	d Sand Gr	ains. ² Locatio	on: PL=Pore L	ining, M=Ma	trix.
Hydric Soil	ndicators: (Applica	able to all L	.RRs, unle	ess other	rwise not	ed.)		Indicators for	Problematic	Hydric Soils	s ³ :
Histosol	(A1)			Sandy C	Gleyed M	atrix (S4)		1 cm Mucl	k (A9) (LRR I ,	J)	
Histic Ep	pipedon (A2)			Sandy F	Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)			G, H)
Black Hi	stic (A3)			Stripped	d Matrix (S6)		Dark Surface (S7) (LRR G)			
Hydroge	n Sulfide (A4)			Loamy I	Mucky Mi	neral (F1)		High Plains Depressions (F16)			
Stratified	Layers (A5) (LRR F	;)		Loamy	Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)			3)
1 cm Mu	ick (A9) (LRR F, G, H	l)		Deplete	d Matrix ((F3)		Reduced Vertic (F18)			
Depleted	Below Dark Surface	e (A11)		Redox L	Jark Surf	ace (F6)		Red Parent Material (TF2)			
	ark Surface (A12)			Deplete	d Dark Si	urface (F7)		Very Shallow Dark Surface (TFT2)			
	lucky Milleral (ST)	22) (I PP C	ш) —		Jepressic	ns (Fo)	16)	³ Indicators of hydrophytic vogotation and			
2.5 cm Mu	incky Peat or Peat (S3	(LRRG)	, п) <u> </u>	(MI	RA 72 &	73 of I RR	H)	wetland bydrology must be propert			
		<i>(</i> ERRT)					•••	unless disturbed or problematic			
Restrictive I	_ayer (if present):										
Type:											
Depth (ind	ches):							Hydric Soil Pre	esent? Yes	No	<u>x</u>
Remarks:								1			
HYDROLO	GY										

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check	Primary Indicators (minimum of one required; check all that apply)				
Surface Water (A1)	_ Salt Crust (B11)	Surface Soil Cracks (B6)			
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)			
Saturation (A3)	Drainage Patterns (B10)				
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)				
Sediment Deposits (B2)	Oxidized Rhizospheres on Living R	Roots (C3) (where tilled)			
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)			
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)			
Iron Deposits (B5)	_ Thin Muck Surface (C7)	Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)			
Field Observations:					
Surface Water Present? Yes No _X	Depth (inches):				
Water Table Present? Yes No _X	_ Depth (inches):				
Saturation Present? Yes <u>No X</u> (includes capillary fringe)	_ Depth (inches):	Wetland Hydrology Present? Yes NoX			
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspection	ons), if available:			
Remarks:					

Wetland 1

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:	WARD	Sampling Date: 10/25/21		
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>1</u> W		
Investigator(s): <u>KEVIN</u> PLOOF	_ Section, Township, Range: _	22, 155,	82		
Landform (hillslope, terrace, etc.): small basin	_ Local relief (concave, conve	x, none): <u>CONCa</u>	.ve Slope (%): 0-2		
Subregion (LRR): F Lat:	48.23737231 Long	g: <u>-101.208</u>	0063 Datum: NAD83		
Soil Map Unit Name: Vallers loam, saline, C)-1% slopes	NWI classific	cation: PEM1C		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)					
Are Vegetation <u>IN</u> , Soil <u>IN</u> , or Hydrology <u>IN</u> significant	ly disturbed? Are "Norm	al Circumstances" p	present? Yes <u>~</u> No		
Are Vegetation <u>IN</u> , Soil <u>IN</u> , or Hydrology <u>IN</u> naturally p	oroblematic? (If needed,	explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No	 Is the Sampled Area within a Wetland? 	Yes_X	No		

 Wetland Hydrology Present?
 Yes X
 No

 Remarks:
 mostly dry in the preceding weeks

		<u> </u>			
Tree Stratum (Dist size:	Absolute	Dominant Species2	Indicator	Dominance Test worksheet:	
		Species	Status	Number of Dominant Species	
1				I hat Are OBL, FACW, or FAC	2
2					(A)
3				Total Number of Dominant	2
4				Species Across All Strata:	<u> </u>
		= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL FACW or FAC	100 _(A/B)
1.					()
2				Prevalence Index worksheet:	
3				Total % Cover of: Mu	ultiply by:
				OBL species x 1 =	
4				FACW species x 2 =	
5				FAC species x 3 =	
Harb Stratum (Blot size: 5)		= Total Cov	ver	FACIL species x 4 =	
<u>Herb Sitalum</u> (Fiol Size)	10	v			
1. <u>Typila all'guscitotta</u>	<u>- 40</u>	 		$\frac{\text{OPL species}}{\text{CPL species}} = \frac{1}{2} \times 5 = \frac{1}{2}$	
2. Phatails arundinacea		<u> </u>	FACW	Column Totals: (A)	(B)
3. Elymus repens	10	<u>N</u>	FACU	Provolopos Indox - P/A -	
4					
5				Hydrophytic vegetation indicators	
6.				$\frac{X}{2}$ 1 - Rapid Test for Hydrophytic Ve	egetation
7				X 2 - Dominance Test is >50%	
Q				3 - Prevalence Index is $\leq 3.0^1$	
0				4 - Morphological Adaptations ¹ (F	Provide supporting
9				data in Remarks or on a sepa	rate sheet)
10				Problematic Hydrophytic Vegetat	tion ¹ (Explain)
	85	= Total Cov	/er		
<u>woody vine Stratum</u> (Plot size:)				be present unless disturbed or proble	ematic
1					
2				Hydrophytic	
15		= Total Cov	/er	Vegetation Present? Ves X N/	•
[™] Bare Ground in Herb Stratum <u>+ →</u>					
Remarks:					

Profile Des	cription: (Describe	to the depth nee	eded to docu	ment the in	ndicator	or confirm	n the absence of ind	dicators.)	
Depth	Matrix		Redo	x Features	s 1	. 2			
(inches)	Color (moist)	<u>%</u> Co	olor (moist)		Type'	Loc	Texture	Remarks	
0-8	10YR 2/1	90 10	YR 5/4	10	C	M	CL		
				_					
							<u> </u>		
				_					
'Type: C=C	concentration, D=Dep	eletion, RM=Redu	ced Matrix, C	S=Covered	or Coate	d Sand Gr	rains. ² Location	PL=Pore Lining, M=Matrix.	
Hydric Soll	Indicators: (Applic	able to all LRRS	, unless othe	rwise note	ea.)		Indicators for P	roblematic Hydric Solis :	
Histoso	l (A1)		Sandy (Gleyed Ma	trix (S4)		1 cm Muck (A9) (LRR I, J)	
Histic Epipedon (A2) Sandy Red			Redux (55) d Matrix (S) 6)		Coast Prairie	e Redox (A16) (LRR F, G, H)		
	$\sum_{n=1}^{n} Sulfide (\Delta 4)$			u iviatrix (S Mucky Min	o) eral (F1)		High Plains Depressions (E16)		
Stratifie	d Lavers (A5) (I RR I	E)		Gleved Ma	trix (F2)		(I BR H outside of MI RA 72 & 73)		
1 cm M	uck (A9) (LRR F. G. I	H)	Deplete	ed Matrix (F	-3)		Reduced Vertic (F18)		
Deplete	d Below Dark Surfac	e (A11)	X Redox	Dark Surfa	ce (F6)		Red Parent Material (TF2)		
Thick D	ark Surface (A12)	、 ,	Deplete	d Dark Su	rface (F7)	1	Very Shallow Dark Surface (TF12)		
Sandy M	Mucky Mineral (S1)		Redox	Depressior	ns (F8)		Other (Explain in Remarks)		
2.5 cm	Mucky Peat or Peat (S2) (LRR G, H)	High Pl	ains Depre	ssions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm M	ucky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 & 7	3 of LRR	H)	wetland hydrology must be present,		
							unless distu	rbed or problematic.	
Restrictive	Layer (if present):								
Туре:		<u> </u>							
Depth (in	iches):						Hydric Soil Pres	ent? Yes <u>X</u> No	
Remarks:									
HYDROLO)GY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of o	one required; che	ck all that appl	y)			Secondary Inc	licators (minimum of two required)	
				(0.4.4)					

Primary Indicators (minimur	n of one required; c	check all that apply)	Secondary Indicators (minimum of two required)		
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)		
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)		
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Water Marks (B1) Dry-Season Water Table (C2)			Oxidized Rhizospheres on Living Roots (C		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) (where tilled)		
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)		
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)		
Iron Deposits (B5)		Thin Muck Surface (C7)	X Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)			FAC-Neutral Test (D5)		
Water-Stained Leaves	(B9)		Frost-Heave Hummocks (D7) (LRR F)		
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 (st	tream gauge, monit	toring well, aerial photos, previous inspec	ctions), if available:		
Remarks:					

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT	WARD	Sampling Date: 10/25/21		
Applicant/Owner: PORT OF ND		State: ND	Sampling Point:2U		
Investigator(s): <u>KEVIN_PLOOF</u>	_ Section, Township, Range: _	22, 155,	82		
Landform (hillslope, terrace, etc.): edge of ditch	_ Local relief (concave, conve	x, none): <u>non</u>	Le Slope (%): 0-1		
Subregion (LRR): F Lat:	18.23735994 Long	g:101.209	<u>1174</u> Datum: NAD83		
Soil Map Unit Name: Vallers loam, saline, C)-1% slopes	NWI classific	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No $\frac{X}{2}$ (If no, explain in Remarks.)					
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation $_$ M _, Soil $_$ M _, or Hydrology $_$ M _ naturally p	roblematic? (If needed,	explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locati	ons, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes No	- Is the Sampled Area				
Hydric Soil Present? Yes No X	within a Wetland?	Yes	No X		
Wetland Hydrology Present? Yes <u>No X</u>	-				
Remarks: mostly dry in the preceding weeks					

VEGETATION -	- Use scientific	names of p	plants.
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3		. <u> </u>		Total Number of Dominant
4				Species Across All Strata: (B)
Conting (Christian (Distance))		= Total Cov	er	Percent of Dominant Species
				That Are OBL, FACW, or FAC: (A/B)
1		·		Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
S				OBL species x 1 =
4				FACW species x 2 =
5		Tatal Oas		FAC species x 3 =
Herb Stratum (Plot size: 5)		= Total Cov	er	FACU species x 4 =
1 Bromus inermis	45	Y	UPL	UPL species x 5 =
2 Bouteloua gracilis	20	Y	FACU	Column Totals: (A) (B)
3 Elymus repens	25	Y	FACU	
4 Bassia scoparia	10	N	FACU	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7		·		2 - Dominance Test is >50%
8		·		3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
3 10		<u> </u>		data in Remarks or on a separate sheet)
10	95	- Total Cav		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size:)			er	¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2.				Hydrophytic
		= Total Cov	er	Vegetation
% Bare Ground in Herb Stratum <u>5</u>				Present? Yes No
Remarks:				

Depth	pth <u>Matrix</u> <u>Redox Features</u>									
(inches)	Color (moist)	<u>%</u> Col	or (moist)	<u>%</u>			Texture		Remarks	
Type: C=Co	ncentration, D=Deplet	ion, RM=Reduc	ed Matrix, CS	S=Covered	or Coate	d Sand Gr	ains. ² Location	: PL=I	Pore Lining, N	M=Matrix.
lydric Soil Ir	ndicators: (Applicab	le to all LRRs,	unless other	wise note	ed.)		Indicators for P	robler	natic Hydric	Soils':
Histosol (A1)		Sandy (Gleyed Ma	trix (S4)		1 cm Muck	(A9) (L	RR I, J)	
Histic Epi	ipedon (A2)		Sandy F	Redox (S5)		Coast Prairi	e Redo	ox (A16) (LR I	R F, G, H)
Black His	itic (A3)		Stripped	i Matrix (S	6) 		Dark Surfac	e (S7)	(LRR G)	
_ Hydroger			Loamy					Depre	SSIONS (F 16)	0 9 70)
_ Stratilieu			Loany	d Matrix (F	1011X (FZ) =3)		(LKK H C Reduced Ve	ortic (E	18)	20(13)
T critikido Denleted	Below Dark Surface (A11)	Depiete Redox [o Matrix (i Dark Surfa	0) ce (F6)		Red Parent	Materi	al (TF2)	
Thick Da	rk Surface (A12)	,,,,,,	Deplete	d Dark Su	rface (F7)		Very Shallov	N Dark	Surface (TF	12)
Sandy M	ucky Mineral (S1)		Redox [Depression	ns (F8)		Other (Expla	ain in F	Remarks)	,
2.5 cm M	ucky Peat or Peat (S2) (LRR G, H)	High Pla	ains Depre	essions (F	16)	³ Indicators of hy	drophy	tic vegetation	n and
5 cm Mud	cky Peat or Peat (S3)	(LRR F)	(ML	RA 72 & 7	3 of LRR	H)	wetland hydr unless distu	rology rbed o	must be pres	ent,
estrictive L	ayer (if present):									
Туре:										
Depth (inc	hes):						Hydric Soil Pres	ent?	Yes	No X
temarks: So	oils not ob	served o	ue to [.]	utili	ties	confl	icts			
YDROLOG	GY									
letland Hyd	rology Indicators:									
rimary Indica	ators (minimum of one	required; checl	call that appl	y)			Secondary Inc	dicator	<u>s (minimum c</u>	of two require
Surface V	$Mator(\Lambda 1)$		Salt Cruct	(D11)			Surface C	coil Cra	aka (DG)	

Primary Indicators (minimun	<u>i of one requ</u>	uired; check	all that apply)		Secondary Indicators (minimum of two required)
Surface Water (A1)			_ Salt Crust (B11)		Surface Soil Cracks (B6)
High Water Table (A2)			Aquatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)
Saturation (A3)			_ Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
Water Marks (B1)			Dry-Season Water Table (C2)		Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	1		Oxidized Rhizospheres on Living	Roots (C3)	(where tilled)
Drift Deposits (B3)			(where not tilled)		Crayfish Burrows (C8)
Algal Mat or Crust (B4)			Presence of Reduced Iron (C4)		Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)			_ Thin Muck Surface (C7)		Geomorphic Position (D2)
Inundation Visible on A	erial Imagery	/ (B7)	Other (Explain in Remarks)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)				Frost-Heave Hummocks (D7) (LRR F)
Field Observations:					
Surface Water Present?	Yes	NoX	_ Depth (inches):		
Water Table Present?	Yes	NoX	_ Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes	NoX	_ Depth (inches):	Wetland	Hydrology Present? Yes NoX
Describe Recorded Data (st	ream gauge	, monitoring	well, aerial photos, previous inspe	ctions), if av	ailable:
Remarks:					

Project/Site: PORT OF ND - CRISI GRANT City/County: MINOT WARD Sampling Date: 10/25/	/21
Applicant/Owner: PORT OF ND State: ND Sampling Point: 2W	
Investigator(s): KEVIN PLOOF Section, Township, Range: 22, 155, 82	
Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): COncave Slope (%): 2	-4
Subregion (LRR): F Lat: 48.23735952 Long: -101.2092208 Datum: NAD8	33
Soil Map Unit Name: Vallers loam, saline, 0-1% slopes NWI classification: PEM1Ax	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \underline{X} (If no, explain in Remarks.)	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally problematic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e	etc.
Hydrophytic Vegetation Present? Yes X No Is the Sampled Area	
Hydric Soil Present? Yes X No within a Wetland? Yes X No	
Wetland Hydrology Present? Yes X No	

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1				(excluding EAC=):	1	(Δ)
2				(excluding i AC).		(~)
3				Total Number of Dominant	1	-
4				Species Across All Strata:		(B)
		= Total Cov	er	Percent of Dominant Species	100	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:		(A/B)
1		<u> </u>		Prevalence Index worksheet:		
2			<u> </u>	Total % Cover of	Multiply by:	
3						_
4						_
5				FACVV species >	(2=	_
E		= Total Cov	er	FAC species >	(3=	_
Herb Stratum (Plot size: 5)	6 -		0.D.T	FACU species >	(4 =	_
<u>1 Typha angustitolia</u>	65	<u>Y</u>	OBL	UPL species >	(5 =	_
2. Spartina pectinata		<u> </u>	FACW	Column Totals: (a	۹)	_ (B)
3				Brouolopoo Indox - B/A -		
4				Prevalence index = B/A =		_
5				Hydrophytic Vegetation Indic	ators:	
6				Δ 1 - Rapid Test for Hydroph	vtic Vegetation	
7				\underline{X} 2 - Dominance Test is >50°	%	
8.				3 - Prevalence Index is ≤3.	0'	
9	_			4 - Morphological Adaptatio	ons ¹ (Provide sup separate sheet)	porting
10				Problematic Hydrophytic V	egetation ¹ (Expla	in)
	75	= Total Cov	er	1		,
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and we	tland hydrology r	nust
1		·			problemate.	
2				Hydrophytic		
% Bare Ground in Herb Stratum 25		= Total Cov	er	Vegetation Present? Yes X	No	
Remarks:				1		

Profile Desc	cription: (Describe to the d	epth needed to document	the indicator or conf	firm the absence of in	dicators.)
Depth	Matrix				
(inches)	Color (moist) %	Color (moist)	<u>% Type¹ Loc²</u>	Texture	Remarks
Type: C=C	oncentration, D=Depletion, R	M=Reduced Matrix, CS=Co	vered or Coated Sand	I Grains. ² Locatior	1: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable to a	III LRRs, unless otherwise	e noted.)	Indicators for I	Problematic Hydric Soils ³ :
Histosol	(A1)	Sandy Gleye	ed Matrix (S4)	1 cm Muck	(A9) (LRR I, J)
Histic E	pipedon (A2)	Sandy Redo	x (S5)	Coast Prair	ie Redox (A16) (LRR F, G, H)
Black H	istic (A3)	Stripped Mat	trix (S6)	Dark Surface	ce (S7) (LRR G)
Hydroge	en Sulfide (A4)	Loamy Muck	y Mineral (F1)	High Plains	Depressions (F16)
Stratified	d Layers (A5) (LRR F)	Loamy Gleye	ed Matrix (F2)	(LRR H	outside of MLRA 72 & 73)
1 cm Mu	uck (A9) (LRR F, G, H)	Depleted Ma	ıtrix (F3)	Reduced V	ertic (F18)
Deplete	d Below Dark Surface (A11)	Redox Dark	Surface (F6)	Red Parent	Material (TF2)
Thick Da	ark Surface (A12)	Depleted Da	rk Surface (F7)	Very Shallo	w Dark Surface (TF12)
Sandy N	/lucky Mineral (S1)	Redox Depre	essions (F8)	Other (Expl	ain in Remarks)
2.5 cm I	Mucky Peat or Peat (S2) (LRI	R G, H) High Plains I	Depressions (F16)	°Indicators of hy	/drophytic vegetation and
5 cm Mu	ucky Peat or Peat (S3) (LRR	F) (MLRA 7	2 & 73 of LRR H)	wetland hyd	Irology must be present,
				uniess disti	Irbed or problematic.
	Layer (if present):				
Type:					No. 14 No. 14
Depth (in	ches):			Hydric Soil Pres	ent? Yes <u>~</u> No
Remarks:	no soils due t	o utility conf	Flicts		
	no borrb due e	o actively com	LIICCD		
IDRULU	GT				
Netland Hy	drology Indicators:				
Primary India	cators (minimum of one requi	red; check all that apply)		Secondary In	dicators (minimum of two required
Surface	Water (A1)	Salt Crust (B11)	Surface	Soil Cracks (B6)
High Wa	ater Table (A2)	Aquatic Inverte	brates (B13)	Sparsely	Vegetated Concave Surface (B8)
Saturati	on (A3)	Hydrogen Sulfi	de Odor (C1)	X Drainage	Patterns (B10)
Water N	larks (B1)	Dry-Season Wa	ater Table (C2)	Oxidized	Rhizospheres on Living Roots (C
Sedimer	nt Deposits (B2)	Oxidized Rhizo	spheres on Living Roo	ots (C3) (where	tilled)
		(where we the		Crev field	

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) X Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Other (Explain in Remarks)	X Geomorphic Position (D2) X FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous i	nspections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WAF	RD	Sampling Date:	10/25/21
Applicant/Owner: PORT OF ND			State:	ND	Sampling Point	1U-2
Investigator(s): KEVIN PLOOF	Section, Tow	nship, Range: _	22,	155,	82	
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex	x, none)	non	le si	ope (%): <u>0−1</u>
Subregion (LRR):F Lat:	48.23864	028 Long	g: <u>-1</u>	01.225	9663 Dat	um: NAD83
Soil Map Unit Name: Vallers loam, saline,	0-1% slo	pes	N	IWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes	NoX	(If no,	explain in R	emarks.)	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significa	intly disturbed?	Are "Norma	al Circu	mstances" p	oresent? Yes	XNo
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	problematic?	(If needed,	explain	any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	ing sampling	point locati	ons, t	ransects	, important f	eatures, etc.
Hydrophytic Vegetation Present? Yes No X						
Hydric Soil Present? Yes No _X	Is the	Sampled Area		Vac	No X	
Wetland Hydrology Present? Yes NoX		i a weuand?		res	NO	_
Remarks: mostly dry in the precedin	g weeks					

шовсту	αrγ	T T T	CIIC	preceding	wcch

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL_FACW_or FAC
··				(excluding FAC-): (A)
2				()
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Boreant of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL EACW or EAC: (A/B)
1				
··				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
				OBL species x 1 =
4				FACW species x 2 =
5				
5		= Total Cov	er	
Herb Stratum (Plot size:)				FACU species x 4 =
<u>1 Bromus inermis</u>	45	<u> Y </u>	UPL	UPL species x 5 =
_{2.} Poa pratensis	20	Y	FACU	Column Totals: (A) (B)
3. Elymus repens	25	Y	FACU	
4. Taraxacum officinale	5	N	FACU	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	95	= Total Cov	er	1
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed of problematic.
2.				Hydrophytic
		= Total Cov	er	Vegetation
% Bare Ground in Herb Stratum 5		10101 000	••	Present? Yes No ^
Remarks:				1

Profile Desc	cription: (Describe t	o the depth	needed	to docur	nent the	indicator	or confirn	m the absence of indicators.)			
Depth	Matrix			Redo	x Feature	es					
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks			
0-4	10YR 2/1	100						CL			
4 - 8	10YR 2/1	95	10YR	5/4	5	С	М	CL			
8-16	10YR 3/3	95	10YR	2/1	2	С	М	loam			
			10YR	8/1	3	С	М	loam			
<u> </u>								· · · · · · · · · _ · _ · _ · _ · _ · _ · · _ · · _ ·			
	oncentration D=Den	etion RM=6		Aatrix CS	S=Covere	d or Coate	d Sand G	$\frac{2}{100}$			
Hvdric Soil	Indicators: (Applica	able to all L	RRs. unle	ess othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :			
Histosol	(A1)		-,-	Sandy (Gleved M	atrix (S4)		1 cm Muck (A9) (LRR I. J)			
Histic E	pipedon (A2)			Sandy F	Redox (St	5)		Coast Prairie Redox (A16) (LRR F, G, H)			
Black H	istic (A3)			Stripped	d Matrix (, S6)		Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)			Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)			
Stratified	d Layers (A5) (LRR F	·)		Loamy	Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)			
1 cm Mu	uck (A9) (LRR F, G, F	I)		Deplete	d Matrix ((F3)		Reduced Vertic (F18)			
Deplete	d Below Dark Surface	e (A11)		Redox I	Dark Surf	ace (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)			Deplete	d Dark Si	urface (F7)		Very Shallow Dark Surface (TF12)			
Sandy N	/lucky Mineral (S1)			Redox I	Depressio	ons (F8)		Other (Explain in Remarks)			
2.5 cm I	Mucky Peat or Peat (62) (LRR G ,	H)	High Pla	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	ucky Peat or Peat (S3	5) (LRR F)		(ML	RA 72 &	73 of LRR	H)	wetland hydrology must be present,			
								unless disturbed or problematic.			
Restrictive	Layer (if present):										
Туре:			_								
Depth (in	ches):							Hydric Soil Present? Yes No _X			
Remarks:											
	•										
HYDROLO	GY										
Wetland Hy	drology Indicators:										
Primary India	cators (minimum of or	ne required;	check all	that appl	y)			Secondary Indicators (minimum of two required			
Surface	Water (A1)		s	alt Crust	(B11)			Surface Soil Cracks (B6)			
High Wa	ater Table (A2)		A	quatic In	vertebrate	es (B13)		Sparsely Vegetated Concave Surface (B8)			
Saturati	on (A3)		⊦	lydrogen	Sulfide O	dor (C1)		Drainage Patterns (B10)			
Water M	1arks (B1)		Dry-Season Water Table (C2)					Oxidized Rhizospheres on Living Roots (C3)			

- (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:							
Surface Water Present?	Yes	No	Depth (inches):				
Water Table Present?	Yes	No	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present? Yes	No _	х
Describe Recorded Data (st	ream gauge	e, monitoring v	well, aerial photos, pre	vious inspec	tions), if available:		
Remarks:							

____ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Thin Muck Surface (C7)

____ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

____ Sediment Deposits (B2)

____ Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Iron Deposits (B5)

____ Drift Deposits (B3)

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: MINOT	WARD	Sampling Date:	10/29/21			
Applicant/Owner: PORT OF ND		State: ND	Sampling Point:	1W-2			
Investigator(s): KEVIN PLOOF	Section, Township, Range:	22, 155,	82				
Landform (hillslope, terrace, etc.): small basin	Local relief (concave, conve	k, none): <u>CONC</u> a	ve Slop	be(%): <u>0−2</u>			
Subregion (LRR): F Lat:	48.23866729 Long	-101.225	9007 Datur	m: NAD83			
Soil Map Unit Name: Vallers loam, saline, (0-1% slopes	NWI classific	cation: PEM1A				
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	(If no, explain in R	emarks.)				
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Norma	al Circumstances" p	present? Yes X	No			
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed,	explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	- In the Sampled Area						

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1			·	That Are OBL, FACW, or FAC	(A)
2					(A)
3				Total Number of Dominant	
4	<u> </u>			Species Across All Strata:	(B)
		= Total Cov	er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)
1					
2				Prevalence index worksheet:	
3				Total % Cover of: Multiply by:	_
4.				OBL species x 1 =	-
5				FACW species x 2 =	-
		= Total Cov	er	FAC species x 3 =	_
Herb Stratum (Plot size: 5)			01	FACU species x 4 =	-
_{1.} Phalaris arundinacea	80	Y	FACW	UPL species x 5 =	_
2. Elymus repens	5	N	FACU	Column Totals: (A)	(B)
3.					
4			·	Prevalence Index = B/A =	-
5				Hydrophytic Vegetation Indicators:	
5			·	X 1 - Rapid Test for Hydrophytic Vegetation	
0			·	X 2 - Dominance Test is >50%	
/			·	3 - Prevalence Index is $≤3.0^1$	
8			·	4 - Morphological Adaptations ¹ (Provide suppo	orting
9				data in Remarks or on a separate sheet)	0
10			·	Problematic Hydrophytic Vegetation ¹ (Explain	ı)
	85	= Total Cov	er		
<u>Woody Vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.	ust
1			·		
2			. <u> </u>	Hydrophytic	
% Para Craund in Llark Stratum 15		= Total Cov	er	Present? Yes X No	
% Bare Ground In Herb Stratum					
Remarks.					

Profile Desc	ription: (Describe t	o the depth n	eeded to docur	nent the i	indicator	or confirm	the absence	of indicators	.)	
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture	·	Remarks	
0-8	10YR 2/1							mixed	fill	
	5R 4/6				<u> </u>					
	10YR 5/1	20								
8-14	10YR 2/1	40					CL	mixed	fill	
	10YR 4/2	40								
	10YR 8/1	20								
					<u> </u>					
1 T			duard Matrix CC		- <u> </u>		21.0		una Lining, MMateix	
Hydric Soil	Indicators: (Application)	ble to all I RE	duced Matrix, Ca	s=Covered	d or Coate	d Sand Gra	ains. Lo	cation: PL=Po	atic Hydric Soils ³	
Histosol			Sandy (Ployed Mc	eu.)		1 cm			
Histic Fr	pipedon (A2)		Sandy F	Redox (S5	5)		Coast	Prairie Redox	(A16) (LRR F. G. H)	
Black Hi	stic (A3)		Stripped	d Matrix (S	56)		Dark S	Surface (S7) (I	LRR G)	
Hydroge	n Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		High F	High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F)	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)			
1 cm Mu	ick (A9) (LRR F, G, H)	Deplete	F3)		Reduc	Reduced Vertic (F18)			
Depleted	d Below Dark Surface	(A11)	Redox I	Dark Surfa	ace (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)		Depiete	a Dark Su Doprossio	Inace (F7)		Very Shallow Dark Surface (TF12)			
	Jucky Milleral (ST)	2) (I RR G H) High Pl	ains Denre	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	icky Peat or Peat (S3) (LRR F)	/ (ML	73 of LRR	H)	wetland hydrology must be present.				
		/(,	(unless	s disturbed or p	problematic.	
Restrictive I	Layer (if present):									
Туре:			_							
Depth (ind	ches):		_				Hydric Soi	I Present?	Yes X No	
Remarks: E	soils are d	isturbe	d they h	ave b	been f	illed				
			4							
HYDROLO	GY									
Wetland Hv	drology Indicators:									
Primary India	cators (minimum of or	e required; ch	neck all that appl	V)			Second	ary Indicators ((minimum of two required)	
Surface	Water (A1)	-	Salt Crust	(B11)			Sur	face Soil Cracl	ks (B6)	
High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)		Spa	arsely Vegetate	ed Concave Surface (B8)	
Saturatio	on (A3)		Hydrogen	Sulfide O	dor (C1)		Dra	inage Patterns	s (B10)	
Water M	larks (B1)		Dry-Seaso	on Water T	Table (C2)		Oxi	dized Rhizospl	heres on Living Roots (C3)	
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots ((C3) (V	where tilled)		
Drift Dep	oosits (B3)		(where I	not tilled)			Cra	yfish Burrows	(C8)	
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	-)	X Sat	uration Visible	on Aerial Imagery (C9)	
Iron Dep	oosits (B5)		Thin Muck	Surface ((C7)		<u> </u>	omorphic Posit	ion (D2)	

(D2)) cks (D7) (LRR F)
X No

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOTWARD Sampling Date: 10/25/						
Applicant/Owner: PORT OF ND	State: ND Sampling Point: 2U-2						
Investigator(s): KEVIN PLOOF	Section, Township, Range: 21, 155, 82						
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>CONVEX</u> Slope (%): <u>0</u> -						
Subregion (LRR): F Lat							
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed? Are "Normal Circumstances" present? Yes \underline{X} No $$						
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ natural	lly 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 No	Is the Sampled Area						

Hydric Soil Present? Wetland Hydrology Present?	Yes <u>No X</u> Yes <u>No X</u>	is the Sampled Area within a Wetland?	Yes	NoX
Remarks: mostly dry in	the preceding we	eks		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4.				Species Across All Strata: (B)
		= Total Cov	or	Demonstrat Demois and Original
Sapling/Shrub Stratum (Plot size:)				That Are OBL_EACW or EAC: 0
1.				
2				Prevalence Index worksheet:
2				Total % Cover of:Multiply by:
S				OBL species x 1 =
4		·		FACW species x 2 =
5		. <u></u>		FAC species x 3 =
		= Total Cov	er	
Herb Stratum (Plot size:)	6 F	v	TIDT	FACU species x 4 =
1. <u>Poa pratensis</u>		<u> </u>		UPL species x 5 =
2. Phalaris arundinacea		N	FACW	Column Totals: (A) (B)
<u>3. Cirsium arvense</u>	10	<u>N</u>	FACU	
4. <u>Bassia scoparia</u>	15	<u>N</u>	FACU	Prevalence index = B/A =
5.				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
o				3 - Prevalence Index is $≤3.0^1$
o				4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10		. <u></u>		Problematic Hydrophytic Vegetation ¹ (Explain)
	92	= Total Cov	er	¹ Indiantors of hydric coil and watland hydrology must
<u>woody vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.
1		<u> </u>		
2				Hydrophytic
		= Total Cov	er	vegetation Present? Yes No ^X
% Bare Ground in Herb Stratum				
Remarks:				

Profile Desc	cription: (Describe t	o the dept	h needed	to docun	nent the i	ndicator	or confirm	the absence of in	dicators.)
Depth	Matrix			Redo	x Features	8			
(inches)	Color (moist)	%	Color (n	noist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 2/1	100							
4-12	10YR 3/1	100						SaL	
12-18	10YR 3/3	90	10YR	7/3	10			SaL	
¹ Type: C=C	oncentration, D=Depl	etion, RM=	Reduced N	Aatrix, CS	=Covered	l or Coate	d Sand Gr	ains. ² Location	1: PL=Pore Lining, M=Matrix.
			_RRS, unie			tu.)			
Histosof Histosof Black Hi Hydroge Stratified Depleted Thick Da Sandy M 2.5 cm M 5 cm Mu	opipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) (LRR F uck (A9) (LRR F, G, F d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Mucky Peat or Peat (S3	°) I) e (A11) 62) (LRR G i) (LRR F)		Sandy F Strippec Loamy I Loamy (Deplete Redox I High Pla (ML	Redox (S5) I Matrix (S Mucky Min Gleyed Ma d Matrix (F Dark Surfa d Dark Su Depressior ains Depre RA 72 & 7	(64) 6) eral (F1) atrix (F2) -3) ce (F6) rface (F7) ns (F8) essions (F 73 of LRR	16) (H)	Coast Prairi Dark Surface High Plains (LRR H Reduced Vo Red Parent Very Shallo Other (Expl ³ Indicators of hy wetland hyd unless distu	 (Ac) (LRR F, G, H) ie Redox (A16) (LRR F, G, H) ie (S7) (LRR G) Depressions (F16) outside of MLRA 72 & 73) ertic (F18) Material (TF2) iw Dark Surface (TF12) ain in Remarks) rdrophytic vegetation and drology must be present, urbed or problematic.
Restrictive	Layer (if present):								
Туре:									
Remarks:	cnes):							Hydric Soll Pres	
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of or	ne required	; check all	that apply	/)		<u> </u>	Secondary In	dicators (minimum of two required)
Surface	Water (A1)		S	alt Crust	(B11)			Surface S	Soil Cracks (B6)
High Wa	ater Table (A2)		A	quatic Inv	vertebrate:	s (B13)		Sparsely	Vegetated Concave Surface (B8)
Saturatio	on (A3)		н	ydrogen	Sulfide Oc	lor (C1)		Drainage	Patterns (B10)
Water N	larks (B1)		D	ry-Seaso	n Water T	able (C2)		Oxidized	Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		0	xidized F	Rhizospher	res on Liv	ing Roots ((where	tilled)
Drift Dep	posits (B3)			(where r	not tilled)			Crayfish	Burrows (C8)
Algal Ma	at or Crust (B4)		P	resence	of Reduce	d Iron (C4	4)	Saturatio	n Visible on Aerial Imagery (C9)

Algai Mat or Crust (B4)			sence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (
Iron Deposits (B5)		Thi	n Muck Surface (C7)	Geomorphic Position (D2)			
Inundation Visible on A	erial Imagery (B	7) Oth	er (Explain in Remarks)		FAC-Neutral Test (D5)		
Water-Stained Leaves	(B9)				Frost-Heave Hummocks (D	7) (LRR F)	
Field Observations:							
Surface Water Present?	Yes	No X De	epth (inches):	_			
Water Table Present?	Yes	No X De	epth (inches):	_			
Saturation Present? (includes capillary fringe)	Yes	No <u>X</u> De	epth (inches):	Wetland H	Hydrology Present? Yes	No	
Describe Recorded Data (st	ream gauge, mo	onitoring well,	aerial photos, previous inspe	ections), if ava	ailable:		
Remarks:							

Yes _____ No __X

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date:	L0/25/21	
Applicant/Owner: PORT OF ND			State: <u>ND</u>	Sampling Point:	2W-2	
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Tov	vnship, Range: _	21, 155,	82		
Landform (hillslope, terrace, etc.): ditch	Local relief	(concave, conve	x, none): <u>CONC</u>	cave Slop	e (%): <u>2-4</u>	
Subregion (LRR): F Lat: _	48.23777	7399 Long	g: <u>-101.220</u>	8501 Datum	n: NAD83	
Soil Map Unit Name: <u>Heimdal-Emrick loam</u> , 0-	3% slope	S	NWI classific	cation: <u>PEM1C</u>		
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes	No X	(If no, explain in F	Remarks.)		
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significa	ntly disturbed?	Are "Norm	al Circumstances" p	present? Yes X	No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	problematic?	(If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes X No	1- 41-	0				
Hydric Soil Present? Yes X No	— Is the	e Sampied Area	Voc X	No		
Wetland Hydrology Present? Yes X No		ii a wellallu :	163	NO		

Remarks: mostly dry in the preceding weeks

	A In a a lust a	Development	La d'a sta a	Deminent Testurale best		
Tree Stratum (Dist size:		Dominant Species2	Indicator	Dominance Test worksheet:		
		<u>Species</u> ?	Status	Number of Dominant Species		
1		·		That Are OBL, FACW, or FAC	1	(•)
2				(excluding FAC-):		(A)
3.				Total Number of Dominant	-	
4				Species Across All Strata:		(B)
T		Tatal Oa		_		
Sanling/Shrub Stratum (Plot size:			/er	Percent of Dominant Species	100	
				That Are OBL, FACW, or FAC:		(A/B)
1				Prevalence Index worksheet:		
2		· <u> </u>		Total % Cover of:	Multiply by:	
3						_
4				OBL species X 1	=	-
5.				FACW species x 2 =	=	_
	_	= Total Cov	/or	FAC species x 3 :	=	_
Herb Stratum (Plot size: 5)		- 101ai 000		FACU species x 4 =	=	_
1 Phalaris arundinacea	60	Y	FACW	UPL species x 5 :	=	
, Spartina pectinata	10	N	FACW	Column Totals: (A)		- (B)
3 Poa pratensis	10	N	FACU			_ (=)
Livmus repens		N	FACU	Prevalence Index = B/A =		_
T		·		Hydrophytic Vegetation Indicato	rs:	
<u> </u>				X 1 - Rapid Test for Hydrophytic	Vegetation	
6		·		2 - Dominance Test is >50%		
/				3 - Prevalence Index is $\leq 3.0^1$		
8		·		4 - Morphological Adaptations	¹ (Provide supp	oortina
9		·		data in Remarks or on a se	parate sheet)	5
10		·		Problematic Hydrophytic Vege	tation ¹ (Explair	n)
	85	= Total Cov	/er			
Woody Vine Stratum (Plot size:)				'Indicators of hydric soil and wetlar	nd hydrology m	nust
1				be present, unless disturbed of pro	biematic.	
2				Hydrophytic		
		= Total Cov	/er	Vegetation		
% Bare Ground in Herb Stratum15				Present? Yes	No	
Remarks:				1		

Profile Desc	cription: (Describe t	o the dept	h need	led to docur	nent the i	ndicator	or confirm	the absence of	indicators.)	
Depth	Matrix			Redo	x Features	5				
(inches)	Color (moist)	%	Colo	or (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 8	<u>10YR 2/1</u>	100						_SaL		
8-14	10YR 2/1	90	5R	4/6	10	С	М	SaL		
					- <u> </u>					
·										
							. <u> </u>			
·					. <u> </u>					
17 0.0								. 21		
Type: C=C	oncentration, D=Depl	etion, RM=	Reduce	ed Matrix, CS	S=Covered	d or Coate	d Sand Gr	ains. ² Location	on: PL=Pore Lining, M=Matrix.	
History				Condu (triv (C1)				
Histic Fr	(AT) ninedon (Δ2)			Sandy F	Sedox (S5))		Coast Pra	irie Redox (A16) (IRR F. G. H)	
Black Hi	istic (A3)			Stripper	d Matrix (S	<i>)</i> (6)		Dark Surf	are (S7) (LRR G)	
Hydroge	en Sulfide (A4)			Loamy	Mucky Min	neral (F1)		High Plair	ns Depressions (F16)	
Stratified	d Layers (A5) (LRR F	·)		Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	uck (A9) (LRR F, G, H	1)		Deplete	d Matrix (F	=3)		Reduced	Vertic (F18)	
Depleted	d Below Dark Surface	e (A11)		X Redox I	Dark Surfa	ce (F6)		Red Pare	nt Material (TF2)	
Thick Da	ark Surface (A12)			Deplete	d Dark Su	rface (F7)		Very Shal	llow Dark Surface (TF12)	
Sandy N	Aucky Mineral (S1)		••	Redox [Depression	าร (F8)		Other (Ex	plain in Remarks)	
2.5 cm M	Mucky Peat or Peat (S	52) (LRR G	, H)	High Pla	ains Depre	essions (⊢	16)	Indicators of I	hydrophytic vegetation and	
	icky Pear of Pear (55)(LKK F)			RA / Z OL /	3 01 LKR	п)		sturbed or problematic	
Restrictive	aver (if present).								subed of problematic.	
Type [.]										
Denth (in	ches).							Hydric Soil Pr	asont? Yas X No	
Deptil (III	ciles).							Hydric 301 Pro		
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of or	ne required	check	all that appl	y)			Secondary	Indicators (minimum of two required)	
Surface	Water (A1)			Salt Crust	(B11)			Surface	e Soil Cracks (B6)	
High Wa	ater Table (A2)			Aquatic In	vertebrate	s (B13)		Sparse	ly Vegetated Concave Surface (B8)	
Saturatio	on (A3)			Hydrogen	Sulfide Oc	dor (C1)		Drainad	ge Patterns (B10)	
Water M	larks (B1)			Dry-Seaso	on Water T	able (C2)		Oxidize	ed Rhizospheres on Living Roots (C3)	
Sedimer	nt Deposits (B2)	usits (B2) Oxidized Rhizospheres on Living Roots				(C3) (whe	re tilled)			

Cravfish	Burrows	(C8)
 		· · · /

Х	Saturation	Visible	on Aerial	Imagery	(C9)
---	------------	---------	-----------	---------	------

x	Geomorphic Position	(D2)	
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FAC-Neutral	Test ((D5)	1
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Water-Stained Leaves (B9)					Frost-Heave Hummocks (D7) (LRR F)		
Field Observations:							
Surface Water Present?	Yes	No	Depth (inches):				
Water Table Present?	Yes	No	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes	NoX	_ Depth (inches):	·	Wetland Hydrology Present? Yes X No		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

(where not tilled)

____ Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

____ Drift Deposits (B3)

____ Iron Deposits (B5)

____ Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County:]	INOT WARD	Sampling Date: <u>10/29/21</u>			
Applicant/Owner: PORT OF ND		State: <u>ND</u>	Sampling Point:3U			
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township	, Range: <u>21, 155,</u>	82			
Landform (hillslope, terrace, etc.): edge of basin	Local relief (conca	ave, convex, none):CC	oncave Slope (%): 2-4			
Subregion (LRR): F Lat	48.2380157	5Long:101.21	.84985			
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classi	ification: N/A			
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes I	No <u>X</u> (If no, explain in	Remarks.)			
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signification	antly disturbed?	Are "Normal Circumstances	" present? Yes X No			
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natural	ly problematic?	(If needed, explain any answ	wers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Ves No X	2					
Hydric Soil Present? Yes No X	Is the Sam	pled Area	N. X			
Wetland Hydrology Present? Yes NoX	within a w	etiand? Yes	NO			

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Spacing		
1				That Are OBL FACW or FAC		
2				(excluding FAC-):	0	(A)
2						
3			·	Total Number of Dominant	2	
4				Species Across All Strata:		(B)
		= Total Cov	ver	Percent of Dominant Species	0	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	0	(A/B)
1			·			
2				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	_
4				OBL species x	1 =	_
т Е				FACW species x	2 =	
o				FAC species x	3 =	
Horb Stratum (Plot size: 5)		= Total Cov	ver	FACIL species	4 =	_
A Promus inermis	58	v	TTDT.		- -	_
1. <u>Diolius incluis</u>		<u> </u>			5 =	-
		<u> </u>	FACU	Column Totals: (A	.)	_ (B)
3. <u>Bassia scoparia</u>	20	<u>N</u>	FACU	Provolonoo Indox = P/A =		
4						_
5.				Hydrophytic vegetation indica	tors:	
6	_			1 - Rapid Test for Hydrophy	tic Vegetation	
7				2 - Dominance Test is >50%	, D	
7		. <u> </u>		3 - Prevalence Index is ≤3.0	1	
ő				4 - Morphological Adaptation	ns ¹ (Provide sup	porting
9				data in Remarks or on a	separate sheet)	
10				Problematic Hydrophytic Ve	getation ¹ (Explai	in)
	98	= Total Cov	ver	1		
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wet	land hydrology r	nust
1			·		Dioblematic.	
2				Hydrophytic		
_		= Total Cov	ver	Vegetation	v	
% Bare Ground in Herb Stratum 2				Present? Yes	No <u>^</u>	
Remarks:						

Profile Desc	ription: (Describe to	the depth nee	eded to docur	nent the i	ndicator	or confirn	n the absence of indicators.)		
Depth	Matrix Redox Features								
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-10	<u> 10YR 3/3</u>	98 5	R 4/8	2	C	M	_loam		
10-16	10YR 3/1	95 5	R 4/8	5	С	М	loam		
					·				
17 0 0									
'Type: C=Co	oncentration, D=Deple	tion, RM=Redu	ced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soli I		Die to all LRRS	, uniess other		ea.)		Indicators for Problematic Hydric Solis :		
Histosol	(A1)		Sandy C	Sleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	stic (A2)		Sandy F	Redox (55 Motrix (5	() (6)		Coast Prairie Redox (A16) (LRR F, G, H)		
	slic (A3) n Sulfide (A4)			a iviatrix (S Mucky Mir	ooral (E1)		Dark Surface (S7) (LRR G)		
Trydroge Stratified	l avers (A5) (I RR F)			Gleved Ma	rerar(F2)		(I PP H outside of MI PA 72 & 73)		
1 cm Mu	ick (A9) (LRR F. G. H)		Deplete	d Matrix (I	F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	(A11)	Redox [Dark Surfa	ice (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)	()	Deplete	d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm M	lucky Peat or Peat (S2	2) (LRR G, H)	High Pla	ains Depre	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (S3)	(LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetland hydrology must be present,		
							unless disturbed or problematic.		
Restrictive L	_ayer (if present):								
Туре:									
Depth (inc	ches):						Hydric Soil Present? Yes No _X		
Remarks:									
HYDROLO	GY								

wetland Hydrology indicators:		
Primary Indicators (minimum of one required; check all	Secondary Indicators (minimum of two required)	
Surface Water (A1) S	Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) H	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) [Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) 0	Oxidized Rhizospheres on Living Roots ((C3) (where tilled)
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) F	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes No _X	Depth (inches):	
Water Table Present? Yes No X	Depth (inches):	
Saturation Present? Yes <u>No X</u> (includes capillary fringe)	Depth (inches): Wetla	and Hydrology Present? Yes No $_$ X
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspections),	if available:
Remarks:		

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOTWARD Sampling Date: 10/29/21
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>3W</u>
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: 21, 155, 82
Landform (hillslope, terrace, etc.): <u>basin</u>	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>
Subregion (LRR): F Lat	48.23806409 Long: -101.2183611 Datum: NAD83
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No \underline{X} (If no, explain in Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natural	y problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ring sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	— Is the Sampled Area — within a Wetland? Yes X No

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet		
Tree Stratum (Plot size:)	% Cover	Species?	Status			
1				That Are OBLE FACW, or FAC		
1				(excluding FAC-):	1	(A)
2						()
3				Total Number of Dominant	1	
4				Species Across All Strata:		(B)
		= Total Cov	ver	Porcent of Dominant Species		
Sapling/Shrub Stratum (Plot size:)				That Are OBL FACW or FAC	100	(A/B)
1.						()
2				Prevalence Index worksheet	:	
2			·	Total % Cover of:	Multiply by:	
				OBL species	x 1 =	
4				FACW species	x 2 =	
5					×2-	
F		= Total Cov	rer		x 3 =	
Herb Stratum (Plot size:)				FACU species	x 4 =	_
<u>1 Typha angustifolia</u>	10	N	OBL	UPL species	x 5 =	
<u>2 Spartina pectinata</u>	80	Y	FACW	Column Totals:	(A)	(B)
3						
1				Prevalence Index = B/A	=	
				Hydrophytic Vegetation India	cators:	
0				X 1 - Rapid Test for Hydroph	vtic Vegetation	
6				X 2 - Dominance Test is >50	1%	
7				3 Provalence Index is <3	0 ¹	
8					.u .u. 1 (Duru dala	
9				4 - Morphological Adaptati	ons (Provide sup	porting
10.					(agatation ¹ (Evala)	in)
	90	= Total Cov	or		regetation (Expla	iii)
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and w	etland hydrology r	nust
1				be present, unless disturbed or	r problematic.	
··				I had a sin ha di s		
2				Hydrophytic		
% Bare Ground in Herb Stratum 10		= I otal Cov	rer	Present? Yes X	No	
Pomorke:				I		
itemano.						

SUL

Depth	epth Matrix Redox Features										
(inches)	Color	(moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks		
0-10	10YR	4/2	90 1	OYR	5/1	5	D	М	loam		
				OYR	2/1	5	С	М			
			·								
			·								
			·						·		
Type: C=C	oncentratio	on, D=Dep	letion, RM=Re	duced M	Aatrix, CS	=Covere	d or Coate	d Sand G	irains. ² Location: PL=Pore Lining, M=Ma	trix.	
Histosol		. (Applic		ns, unit	Sandy G		atrix (S4)		1 cm Muck (A9) (I RR I I)).	
Histic F	ninedon (A	2)		Sandy Redox (S5)			5)		Coast Prairie Redox (A16) (I RR F		
Black H	istic (A3)	<u>(</u>		Stripped Matrix (S6)			5) S6)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide ((A4)		Loamy Mucky Mineral (F1)			neral (F1)		High Plains Depressions (F16)		
Stratifie	d Lavers (A	45) (I RR	F)	Loamy Gleved Matrix (E2)			latrix (F2)		(LRR H outside of MI RA 72 & 73		
0.rduille	uck (A9) (I	RR F G	H)	x	Depleter	d Matrix ((F3)		Reduced Vertic (F18)	0)	
Deplete	d Below D	ark Surfac	e (A11)		Redox C	ark Surf	ace (F6)	ce (F6) Red Parent Material (TF			
Doploto	hick Dark Surface (A12)				Depleter	d Dark Si	urface (F7)		Very Shallow Dark Surface (TE12)		
Sandv M	Aucky Mine	eral (S1)			Redox C)enressir	ns (F8)		Other (Explain in Remarks)		
2.5 cm l	Mucky Pea	it or Peat (S2) (I RR G F	n	High Pla	ins Denr	ressions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mi	ucky Peat o	or Peat (S	3) (LRR F)	•)	(MLI	RA 72 &	73 of LRR	(H)	wetland hydrology must be present,		
Restrictive	Layer (if p	resent):									
Туре:				_							
Depth (in	ches):			_					Hydric Soil Present? Yes X	<u>_</u> د	
Remarks:											

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates	(B13) Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Od	or (C1) Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water T	able (C2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospher	es on Living Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduce	Iron (C4) <u>X</u> Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7) <u>X</u> Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rel	narks) X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 10/29/21
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>4U</u>
Investigator(s): <u>KEVIN_PLOOF</u>	_ Section, Township, Range: 21, 155, 82
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, convex, none):CONCAVE Slope (%): 2-4
Subregion (LRR): F Lat:	48.23920071 Long: -101.2216839 Datum: NAD83
Soil Map Unit Name: Tonka silt loam, 0-1% s	NWI classification: <u>N</u> /A
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes No \underline{X} (If no, explain in Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally preserved by the second se	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	- Is the Sampled Area
Hydric Soil Present? Yes No _X_ Wetland Hydrology Present? Yes No _X_	within a Wetland? Yes <u>No X</u>

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC	0	
2.				(excluding FAC-):		(A)
3.				Total Number of Dominant	_	
4				Species Across All Strata:	2	(B)
т		- Total Ca				、 ,
Sapling/Shrub Stratum (Plot size:)			e	Percent of Dominant Species	0	(A /D)
1				That Are OBL, FACW, of FAC:		(A/B)
··			<u> </u>	Prevalence Index worksheet:		
2				Total % Cover of:	Multiply by:	
3				OBL species x	1 =	
4			<u> </u>	FACW species	2 =	
5			<u> </u>	FAC species	3 =	
5		= Total Cov	/er			
Herb Stratum (Plot size:)	FO	37	TTDT	FACU species x		
1. Bromus inermis	58	<u> </u>		UPL species x	5 =	
2. Poa pratensis	20	<u> Y </u>	FACU	Column Totals: (A	۹)	_ (B)
<u>3 Bassia scoparia</u>	20	N	FACU			
4				Prevalence Index = B/A =		
5.				Hydrophytic Vegetation Indica	ators:	
6				1 - Rapid Test for Hydrophy	tic Vegetation	
7				2 - Dominance Test is >50%	6	
0				3 - Prevalence Index is ≤3.0) ¹	
0			<u> </u>	4 - Morphological Adaptatio	ns ¹ (Provide sup	porting
9				data in Remarks or on a	separate sheet)	
10				Problematic Hydrophytic Ve	egetation ¹ (Expla	in)
	98	= Total Cov	/er	¹ Indianters of hydrin poil and we		
Woody Vine Stratum (Plot size:)				be present unless disturbed or	problematic	nust
1			. <u> </u>		p. 00.01104.01	
2			. <u> </u>	Hydrophytic		
2		= Total Cov	ver	Vegetation Bresent2 Ves	No X	
% Bare Ground in Herb Stratum				11636HL: 165		
Remarks:						

Profile Desc	ription: (Describe to	the depth nee	eded to docur	nent the i	ndicator	or confirm	n the absence of indicators.)		
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-10	<u> 10YR 3/3</u>	<u>98</u> 5	R 4/8	2	C	<u>M</u>			
10-16	10YR 3/1	95 5	R 4/8	5	С	М	loam		
					·				
				·			· ·		
					. <u> </u>				
¹ Type ⁻ C=Co	oncentration D=Deple	tion RM=Redu	ced Matrix CS	S=Covered	d or Coate	d Sand G	arains ² Location: PL=Pore Lining M=Matrix		
Hydric Soil I	Indicators: (Applicat	ole to all LRRs	, unless other	wise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy (Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy F	Redox (S5	i)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		Stripped	d Matrix (S	6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy I	Mucky Mir	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F)		Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
	ICK (A9) (LRR F, G, H) d Bolow Dark Surface /	(11)	Deplete	a Matrix (I	F3)		Reduced Vertic (F18) Red Parent Material (TE2)		
Depleted	ark Surface (A12)	(ATT)	Deplete	d Dark Suite	ice (FO) Inface (F7)		Very Shallow Dark Surface (TE12)		
Sandy M	lucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm M	Aucky Peat or Peat (S2	2) (LRR G, H)	High Pla	, ains Depre	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3)	(LRR F)	(ML	RA 72 & 1	73 of LRR	H)	wetland hydrology must be present,		
							unless disturbed or problematic.		
Restrictive L	_ayer (if present):								
Туре:									
Depth (inc	ches):						Hydric Soil Present? Yes No _X	<u> </u>	
Remarks:									
	GY								
Wetland Hy	drology Indiactora								

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on Living F	Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No _X_ Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: _	MINOT	WARD	Sampling Date:	10/29/21
Applicant/Owner: PORT OF ND			State: ND	Sampling Point	4W
Investigator(s): KEVIN PLOOF	_ Section, Towr	nship, Range: _	21, 155,	82	
Landform (hillslope, terrace, etc.): basin	Local relief (c	concave, convex	k, none): CONC	ave si	ope (%): 0 - 2
Subregion (LRR): F Lat:	18.23918	085 Long	<u>-101.221</u>	.5042 Dat	um: NAD83
Soil Map Unit Name: Heimdal-Emrick loam, 0-3	3% slopes	3	NWI classific	cation: PEM1	С
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes	No X	(If no, explain in R	Remarks.)	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significant	tly disturbed?	Are "Norma	al Circumstances" p	oresent? Yes	XNo
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally μ	problematic?	(If needed,	explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showin	ng sampling	point locati	ons, transects	, important f	eatures, etc.
Hydrophytic Vegetation Present? Yes X No	- Is the	Sampled Area			

Hydrophylic Vegetation resent? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···		= Total Cov		FAC species x 3 =
Herb Stratum (Plot size: ⁵)			CI	FACU species x 4 =
1 Phalaris arundinacea	50	Y	FACW	UPL species x 5 =
₂ Typha angustifolia	15	N	FACW	Column Totals: (A) (B)
3 Poa pratensis	15	N	FACU	
				Prevalence Index = B/A =
+				Hydrophytic Vegetation Indicators:
o				X 1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	80	= Total Cov	er	
Woody Vine Stratum (Plot size:)				he present unless disturbed or problematic
1				
2				Hydrophytic
20		= Total Cov	er	Vegetation Present? Yes X No
% Bare Ground in Herb Stratum 20				
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	<u>%</u> C	olor (mo	oist)	%	Type ¹	Loc ²	Texture	Remarks	
0-8	<u> 10YR 2/1</u>	95 10	DYR 6	5/1	5		M	<u>loam</u>		
						·				
	·									
<u> </u>							<u> </u>			
						·		. <u> </u>		
<u> </u>										
¹ Type: C=C	oncentration, D=Deple	etion, RM=Red	uced Ma	atrix, CS	=Covere	d or Coate	d Sand G	rains. ² Loc	ation: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applica	ble to all LRR	s, unles	s other	wise not	ed.)		Indicators	for Problematic Hydric Soils ³ :	
Histosol	(A1)		5	Sandy G	Bleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic E	pipedon (A2)		5	Sandy R	edox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black H	istic (A3)		Stripped Matrix (S6)					Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F)		Loamy Gleyed Matrix (F2)					(LR	R H outside of MLRA 72 & 73)	
	JCK (A9) (LRR F, G, H) (A11)	Z Redox Dark Surface (E6)						ed Vertic (F18)	
Depieter	u Below Dark Surface	(ATT)	A Redux Dark Surface (F6)						hellow Dark Surface (TE12)	
Sandy A	Aucky Mineral (S1)		Redox Depressions (F8)					Very S	Explain in Remarks)	
2.5 cm l	Mucky Peat or Peat (S	2) (I RR G H)	'	High Pla	ins Denre	essions (F	16)	³ Indicators	of hydrophytic vegetation and	
5 cm Mi	icky Peat or Peat (S3)	(LRR F)	(MLRA 72 & 73 of LRR H)					wetland	t hydrology must be present	
		(,	(,	unless	disturbed or problematic.	
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):							Hydric Soil	Present? Yes <u>X</u> No	
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary Indi	cators (minimum of on	e required; che	eck all th	at apply	()			<u>Seconda</u>	ry Indicators (minimum of two required)	
Surface	Water (A1)		Sal	t Crust ((B11)			Surfa	ace Soil Cracks (B6)	
High Wa	High Water Table (A2) Aquatic Invertebrates (B13)			Spar	rsely Vegetated Concave Surface (B8)					

			Aqualic Invertebrates (D13)		Sparsely vegetated Concave Sunace (DO)
Saturation (A3)			Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
Water Marks (B1)			Dry-Season Water Table (C2)		Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)			Oxidized Rhizospheres on Living I	Roots (C3)	(where tilled)
Drift Deposits (B3)			(where not tilled)		Crayfish Burrows (C8)
Algal Mat or Crust (B4)			Presence of Reduced Iron (C4)		X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)			Thin Muck Surface (C7)		X Geomorphic Position (D2)
Inundation Visible on Ae	rial Imagery (E	37)	Other (Explain in Remarks)		FAC-Neutral Test (D5)
Water-Stained Leaves (E	39)				Frost-Heave Hummocks (D7) (LRR F)
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 <u>X</u>	Depth (inches):	Wetland I	Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (str	eam gauge, m	onitoring v	well, aerial photos, previous inspec	tions), if ava	ailable:

Remarks:

Project/Site: <u>PORT OF ND - CRISI GRANT</u>	City/County: MINOT WARD Sampling Date: 10/29/21				
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>4W2</u>				
Investigator(s): KEVIN PLOOF	Section, Township, Range: 21, 155, 82				
Landform (hillslope, terrace, etc.): basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>				
Subregion (LRR): F Lat: _48	3.23925368 Long: -101.2219413 Datum: NAD83				
Soil Map Unit Name: Heimdal-Emrick loam, 0-38	slopes NWI classification: PEM1C				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)					
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly	disturbed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally provide the second	oblematic? (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 Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland? Yes \underline{X} No				

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC	1	
2				(excluding FAC-):		(A)
3				Total Number of Dominant	1	
4.				Species Across All Strata:		(B)
		= Total Cov	rer	Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	100	(A/B)
1						. ,
2				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	_
4				OBL species x	1 =	_
5				FACW species x	2 =	_
		- Total Cov		FAC species x	3 =	_
Herb Stratum (Plot size: ⁵)		- 10141 000		FACU species x	4 =	_
1 Phalaris arundinacea	50	Y	FACW	UPL species x	5 =	
₂ Typha angustifolia	15	N	FACW	Column Totals: (A)	(B)
3 Poa pratensis	15	N	FACU	(,	_ ()
				Prevalence Index = B/A =		
T				Hydrophytic Vegetation Indica	tors:	
5				X 1 - Rapid Test for Hydrophy	tic Vegetation	
6				2 - Dominance Test is >50%	, D	
/				3 - Prevalence Index is ≤3.0	1	
8				4 - Morphological Adaptation	ns ¹ (Provide sup	portina
9				data in Remarks or on a	separate sheet)	. 0
10				Problematic Hydrophytic Ve	getation ¹ (Explai	in)
	80	= Total Cov	rer		lavad by ideala av i u	
<u>Woody Vine Stratum</u> (Plot size:)				be present, unless disturbed or r	problematic.	nust
1						
2				Hydrophytic		
1 Prove Occurred in Usert Oterstore 20		= Total Cov	rer	Present? Yes X	No	
% Bare Ground in Herb Stratum						
Remarks.						

Profile Desc	ription: (Describe t	o the depth	needed to docu	nent the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0 - 8	<u>10YR 2/1</u>	100					_loam		
8-16	10YR 4/2	90 5	R 4/6	10	С	М	loam		
								—	
1								—	
'Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, C	S=Covere	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soli I	indicators: (Applica	Die to all Li	Res, unless othe	rwise no	(ea.)		Indicators for Problematic Hydric Solis :		
Histosol	(A1)		Sandy		atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	stic (A3)		Sandy i	Kedox (S Matrix (5) 56)		Dark Surface (S7) (I RR G)		
Black Th Hydroge	n Sulfide (A4)			Mucky M	neral (F1)		High Plains Depressions (F16)		
Stratified	Lavers (A5) (LRR F)	Loamy	Gleved N	latrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, H))	X Deplete	d Matrix	(F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	(A11)	Redox	Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deplete	d Dark S	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	lucky Peat or Peat (S	52) (LRR G ,	H) High Pl	ains Depi	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)				wetland hydrology must be present,		
	<i></i>						unless disturbed or problematic.		
Restrictive I	_ayer (if present):								
Туре:	_								
Depth (inches):							Hydric Soil Present? Yes <u>×</u> No		
Remarks:	Remarks:								
Wetland Hvo	drology Indicators								

Wetland Hydrology Indicators:		
Primary Indicators (minimum of or	e required; check all that apply)	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial In Water-Stained Leaves (B9) 	 Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living F (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) 	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Ye	es No X Depth (inches):	
Water Table Present? Ye	es No X Depth (inches):	
Saturation Present? Ye (includes capillary fringe)	28 No _ X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, previous inspecti	ions), if available:
Remarks:		

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINC	T WARD	Sampling Date: 10/29/21		
Applicant/Owner: PORT OF ND		State: <u>ND</u>	Sampling Point:9U		
Investigator(s): KEVIN PLOOF	Section, Township, Ra	nge: 16, 155,	82		
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave,	convex, none):	Le Slope (%): 0-1		
Subregion (LRR): F La	t: 48.24277777	_Long: -101.223	3784 Datum: NAD83		
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes No _	\mathbf{x} (If no, explain in R	emarks.)		
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signific	cantly disturbed? Are	'Normal Circumstances" p	present? Yes X No		
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natura	Ily problematic? (If ne	eeded, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	X X X within a Wetla	I Area nd? Yes	No X		
Wetland Hydrology Present? Yes No	<u>x</u>				

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-). (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1		<u> </u>	<u> </u>	Prevalence Index worksheet
2				Total % Cover of: Multiply by:
3				
4				
5				
5		= Total Cover		
Herb Stratum (Plot size:)	FO	NT	ттот	FACU species X 4 =
1. Brassica rapa		N	UPL	UPL species x 5 =
2				Column Totals: (A) (B)
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
o			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
/				3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9			<u> </u>	data in Remarks or on a separate sheet)
10		<u> </u>	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vino Stratum (Plot size:	50	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1			<u> </u>	
2	<u> </u>			Hydrophytic Vegetation
% Bare Ground in Herb Stratum 50		= Total Cover		Present? Yes <u>No X</u>
Remarks: row cropped canola				•

Profile Desc	cription: (Describe	to the depth	need	ed to docur	nent the	indicator	or confirn	n the absence of indicators.)		
Depth	Matrix Redox Features									
(inches)	Color (moist)	%	Colc	or (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 3/1	100 _								
6-14	10YR 4/3	95	5R	4/6	5	С	М	loam		
							·	·		
								· · · · · · · · · _		
						·		· · · · · · · · · _ · _ · _ · · _ · · _ ·		
								· ·		
¹ Type: C=C	oncentration D=Dep	letion RM=R	Reduce	ed Matrix CS	S=Covere	d or Coate	d Sand G	arains ² I ocation: PI =Pore Lining M=Matrix		
Hydric Soil	Indicators: (Applica	able to all L	RRs, ι	unless other	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy (Gleved Ma	, atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)			Sandy F	Redox (St	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	istic (A3)			Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)			Loamy Mucky Mineral (F1)				High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F)		Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)		
1 cm ML	JCK (A9) (LRR F, G, F	1) > (A11)		Depiete	a Matrix (F3) 200 (E6)		Reduced Venic (F16) Red Parent Material (TE2)		
Depleted	ark Surface (A12)	= (ATT)		Depleted Dark Surface (F7)				Very Shallow Dark Surface (TF12)		
Sandy M	Aucky Mineral (S1)			Redox [Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm M	Mucky Peat or Peat (S2) (LRR G,	H)) High Plains Depressions (F16)				³ Indicators of hydrophytic vegetation and		
5 cm Mu	ucky Peat or Peat (S3	B) (LRR F)		(MLRA 72 & 73 of LRR H)				wetland hydrology must be present,		
								unless disturbed or problematic.		
Restrictive I	Layer (if present):									
Туре:										
Depth (inches):								Hydric Soil Present? Yes No _X		
Remarks:										
Wetland Hydrology Indicators:										

wettand riverology indicators.								
Primary Indicators (minimum of one required; chee	Secondary Indicators (minimum of two required)							
Surface Water (A1)	Salt Crust (B11)	Surface Soil Cracks (B6)						
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)						
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)						
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)						
Sediment Deposits (B2)	Oxidized Rhizospheres on Living R	bots (C3) (where tilled)						
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)						
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)						
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)						
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)							
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)						
Field Observations:								
Surface Water Present? Yes No _>	C Depth (inches):							
Water Table Present? Yes No _>	C Depth (inches):							
Saturation Present? Yes No _ [≯] (includes capillary fringe)	C Depth (inches):	Wetland Hydrology Present? Yes No $_$ X						
Describe Recorded Data (stream gauge, monitoring	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:								

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: _ MINOT	WARD	Sampling Date: 10/29/21			
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 9W			
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82			
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	k, none): <u>CONC</u>	ave Slope (%): 0-2			
Subregion (LRR): F Lat: _	48.24277456 Long	g:	Datum: NAD83			
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	cation: <u>PEM1F</u>			
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	(If no, explain in R	emarks.)			
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significar	ntly disturbed? Are "Norma	al Circumstances" p	present? Yes X No			
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally	problematic? (If needed,	explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vocatation Prosent? Voc. X No.						

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes_X No
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC	1	
2				(excluding FAC-):		(A)
3				Total Number of Dominant	1	
4.				Species Across All Strata:		(B)
		= Total Cov	er	Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	100	(A/B)
1						()
2.				Prevalence Index worksheet:		
3.				Total % Cover of:	Multiply by:	_
4				OBL species x	1 =	_
T				FACW species x	2 =	_
o		- Total Car		FAC species x	3 =	
Herb Stratum (Plot size: 5)		= Total Cov	er	FACU species x	4 =	
1 Phalaris arundinacea	10	Ν	FACW	UPL species x	5 =	_
2 Spartina pectinata	_ <u></u> 75	v	FACII	Column Totals: (A		(B)
		<u> </u>			.,	_ (D)
S				Prevalence Index = B/A =		
4				Hydrophytic Vegetation Indica	tors:	
5			·	X 1 - Rapid Test for Hydrophyl	tic Vegetation	
6			<u> </u>	X 2 - Dominance Test is >50%	5	
7			. <u> </u>	3 - Prevalence Index is <3.0	1	
8			<u> </u>		ne ¹ (Provide sup	norting
9				data in Remarks or on a	separate sheet)	porting
10				Problematic Hydrophytic Ve	getation ¹ (Explai	in)
	85	= Total Cov	er		5	,
Woody Vine Stratum (Plot size:)				'Indicators of hydric soil and wet	land hydrology r	nust
1				be present, unless disturbed of p		
2				Hydrophytic		
1 ⊑		= Total Cov	er	Vegetation Xaa X	No	
% Bare Ground in Herb Stratum⊃					140	
Remarks:						

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix	Redox Features							
(inches)	Color (moist)	<u> </u>	olor (mo	oist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	10YR 4/2	90 10	DYR	5/1	5	D	М	loam	
		1(DYR	2/1	5	C	M		
				_/					
						·			
									_
						·			
						·			
						·			
	oncentration D=Denk	etion RM=Redu	icod Ma	atrix CS	=Covered	d or Coate	d Sand Gr	ains ² Locati	on: PI = Pore Lining M=Matrix
Hydric Soil	Indicators: (Applica	ble to all I RRs		s other	wise not	ed)		Indicators for	r Problematic Hydric Soils ³
Histosol	(A1)		, unice	Sandy G	loved Mc	riv (S4)		1 cm Muc	
Histic E	ninedon (A2)			Sandy B	edox (S5	(04)			$\operatorname{Add}_{\mathcal{A}}(LRK,J)$
Black H	istic (A3)			Strinned	Matrix (S	~/ \$6)		Dark Surf	are (S7) (IRR G)
Hydrogen Sulfide (A4)			`	l oamv N	Aucky Mir	heral (F1)		High Plair	as Depressions (F16)
<u>Stratifie</u>	d Lavers (A5) (LRR F)	`	l oamv G	Gleved Ma	atrix (F2)		(LRR I	Houtside of MLRA 72 & 73)
1 cm Mi	uck (A9) (LRR F, G, H	, I)	X	Depleted	d Matrix (F3)		Reduced	Vertic (F18)
Deplete	d Below Dark Surface	, (A11)	I	Redox D	ark Surfa	ace (F6)		Red Pare	nt Material (TF2)
Thick Dark Surface (A12)			Depleted Dark Surface (F7)					Very Shal	llow Dark Surface (TF12)
Sandy M	Aucky Mineral (S1)		F	Redox D	epressio	ns (F8)		Other (Ex	plain in Remarks)
2.5 cm Mucky Peat or Peat (S2) (LRR G, H)			High Plains Depressions (F16)				16)	³ Indicators of I	hydrophytic vegetation and
5 cm Mucky Peat or Peat (S3) (LRR F)			(MLRA 72 & 73 of LRR H)				H)	wetland hy	ydrology must be present,
								unless dis	sturbed or problematic.
Restrictive	Layer (if present):								
Type:									
Depth (in	ches):							Hvdric Soil Pre	esent? Yes ^X No
Pemarke:								, ,	
Remarks.									
	GV								
III DROLU									

Wetland Hydrology Indica	ors:		
Primary Indicators (minimum	of one required	Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one required; check all that apply)		 Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarke) 	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) X EAC Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	- /		
Surface Water Present? Water Table Present?	Yes 1 Yes 1	X Depth (inches): No X Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes I	lo X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (st Remarks:	ream gauge, mo	nitoring well, aerial photos, previous inspec	tions), if available:

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/03/21
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point:11U
Investigator(s): KEVIN PLOOF	Section, Township, Range: 16, 155, 82
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>
Subregion (LRR): F Lat: 4	8.24398228 Long: -101.2289842 Datum: <u>NAD83</u>
Soil Map Unit Name: Tonka silt loam, 0-1% s	lopes NWI classification:N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No \underline{X} (If no, explain in Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally pr	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX Hydric Soil Present? Yes X	Is the Sampled Area

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes No X	within a Wetland?	Yes NoX
Remarks: mostly dry in	the preceding w	eeks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:						
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species						
1		. <u> </u>		That Are OBL, FACW, or FAC						
2										
3				Total Number of Dominant						
4				Species Across All Strata: (B)						
		= Total Cov	er	Percent of Dominant Species						
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)						
1				Dravalance Index workshoet						
2				Tatal % Original fills						
3				I otal % Cover of: Multiply by:						
4				OBL species x 1 =						
5				FACW species x 2 =						
_		= Total Cov	er	FAC species x 3 =						
Herb Stratum (Plot size: <u>5</u>)				FACU species x 4 =						
1. <u>Elymus trachycaulus</u>	60	Y	FACU	UPL species x 5 =						
2. <u>Elymus repens</u>	25	Y	FACU	Column Totals: (A) (B)						
3. <u>Hordeum jubatum</u>	10	N	FACW							
4				Prevalence Index = B/A =						
5.				Hydrophytic Vegetation Indicators:						
6				1 - Rapid Test for Hydrophytic Vegetation						
7				2 - Dominance Test is >50%						
Q				$_$ 3 - Prevalence Index is $\le 3.0^1$						
0				4 - Morphological Adaptations ¹ (Provide supporting						
9				data in Remarks or on a separate sheet)						
10				Problematic Hydrophytic Vegetation ¹ (Explain)						
Woody Vine Stratum (Plot size:	_90	= Total Cov	rer	¹ Indicators of hydric soil and wetland hydrology must						
1				be present, unless disturbed or problematic.						
2				Hydrophytic						
۲ <u>۲</u>	90	- Total Car		Vegetation						
% Bare Ground in Herb Stratum 10				Present? Yes No X						
Remarks:				1						
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
---	---------------------------------------	---	--	-----------	------------------	---	----------	--	-----------	--
Depth	Depth Matrix Redox Features									
(inches)	Color (moist)	<u>%</u> C	Color (moist) % Type ¹ Loc ²		Loc ²	Texture Remarks				
0-4	10YR 2/1	100						_loam		
4-12	10YR 2/1	90 10)YR	4/6	10	C	М	loam		
12-18	10YR 3/2	90 10)YR	4/6	10	С	М	loam		
		· ·								
									_	
									—	
									—	
$\frac{1}{1}$		letion RM=Red	uced M	latrix CS		l or Coate	d Sand G	rains ² ocation: PI = Pore Lining M=Matrix	—	
Hydric Soil	Indicators: (Application)	able to all LRR	s, unle	ss other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy G	leved Ma	trix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy Redox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Stripped Matrix (S6)					Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	-)	Loamy Gleyed Matrix (F2)					(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ıck (A9) (LRR F, G, H	- ()	Depleted Matrix (F3)					Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	X Redox Dark Surface (F6)					Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Depleted Dark Surface (F7)					Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox Depressions (F8)					Other (Explain in Remarks)		
2.5 cm M	Aucky Peat or Peat (S2) (LRR G, H)	High Plains Depressions (F16)					³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	B) (LRR F)	(MLRA 72 & 73 of LRR H)					wetland hydrology must be present,		
	, , , , , , , , , , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						unless disturbed or problematic.		
Restrictive I	Layer (if present):									
Туре:										
Depth (ind	ches):							Hydric Soil Present? Yes X No		
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
Primary Indic	cators (minimum of o	ne required; che	eck all t	hat apply	()			Secondary Indicators (minimum of two require	<u>d)</u>	
Surface	Water (A1)		Sa	alt Crust	(B11)			Surface Soil Cracks (B6)		
High Wa	ter Table (A2)	Aquatic Invertebrates (B13)				Sparsely Vegetated Concave Surface (B8)				

Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Oxidized Rhizospheres on Living Roots (C3)	(where tilled)

- Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:								
Surface Water Present?	Yes	NoX	Depth (inches):					
Water Table Present?	Yes	NoX	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes	No _	x
Describe Recorded Data (stre	eam gauge,	, monitoring v	well, aerial photos, p	revious inspec	tions), if available:			

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Remarks:

_ Saturation (A3)

Water Marks (B1)

____ Drift Deposits (B3)

____ Iron Deposits (B5)

____ Sediment Deposits (B2)

____ Algal Mat or Crust (B4)

____ Water-Stained Leaves (B9)

____ Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOT	WARD	Sampling Date: 11/03/21
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>11W</u>
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	ex, none):CONC	slope (%): 0-2
Subregion (LRR): F Lat	<u>48.24394985</u> Lon	g: <u>-101.228</u>	8886 Datum: NAD83
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	cation: PEM1F
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No _X	_ (If no, explain in R	Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed? Are "Norm	al Circumstances" p	present? Yes X No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ natural	ly problematic? (If needed	, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locat	ions, transects	s, important features, etc.
Ludershutie Verstetien Descent?			

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes_X No
Remarks: mostly dry in	. the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1			<u> </u>	That Are OBL, FACW, or FAC	2	(A)
2						(~)
3				Total Number of Dominant	2	
4				Species Across All Strata:		(B)
Conling/Chruh Stratum (Distaiza)		= Total Cov	rer	Percent of Dominant Species	100	
				That Are OBL, FACW, or FAC:	<u> </u>	(A/B)
1				Prevalence Index worksheet:		
2				Total % Cover of:	Multiply by:	_
S				OBL species x 1	=	
4			·	FACW species x 2	2 =	
5		Tatal Oa		FAC species x 3	3 =	_
Herb Stratum (Plot size: ⁵)			er	FACU species x 4	↓ =	
1. Hordeum jubatum	20	Y	FACW	UPL species x 5	5 =	
2. Typha angustifolia	60	Y	OBJ	Column Totals: (A)		(B)
3.						,
4.				Prevalence Index = B/A =		_
5.				Hydrophytic Vegetation Indicat	ors:	
6				X 1 - Rapid Test for Hydrophyti	c Vegetation	
7				\underline{X} 2 - Dominance Test is >50%		
8			······	3 - Prevalence Index is $\leq 3.0^1$		
9				4 - Morphological Adaptation	s ¹ (Provide sup	porting
10				data in Remarks or on a s	eparate sheet)	,
····	80	= Total Cov	er.	Problematic Hydrophytic Veg	etation (Explai	n)
Woody Vine Stratum (Plot size:)		- 10101 001		¹ Indicators of hydric soil and wetla	and hydrology n	nust
1	<u> </u>			be present, unless disturbed or pr	oblematic.	
2				Hydrophytic		
		= Total Cov	rer	Vegetation X	N.	
% Bare Ground in Herb Stratum 20				Present? Yes	NO	
Remarks:						

Profile Desc	ription: (De	escribe	to the de	pth needeo	l to docur	ment the i	indicator of	or confirm	the absence of	f indicators.)		
Depth	Matrix				Redox Features							
(inches)	Color (m	noist)	%	Color	(moist)	%	Type'	Loc ²	Texture	Remarks		
0-4	10YR 2	2/1	100									
4-12	10YR 2	2/1	95	10YR	8/1	5	С	М	SiL			
12-18	10YR 6	5/2	95	10YR	8/1	5	С	М	SiL			
							·					
			<u> </u>					<u> </u>				
·							<u> </u>	·				
$\frac{1}{1}$		D-Dor	lotion PM		Matrix C		d or Coato	d Sand Gr		tion: DI - Doro Lining M-Matrix		
Hydric Soil	Indicators:	(Applic	able to al	I LRRs, un	less othe	rwise not	ed.)		Indicators fo	or Problematic Hydric Soils ³ :		
Histosol	(A1)				Sandy (Gleyed Ma	atrix (S4)		1 cm Mu	ick (A9) (LRR I, J)		
Histic Ep	pipedon (A2)			Sandy Redox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	stic (A3)				Stripped Matrix (S6)					rface (S7) (LRR G)		
Hydroge	n Sulfide (A4	4)			Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5)) (LRR I	F)	Loamy Gleyed Matrix (F2)					(LRR H outside of MLRA 72 & 73)			
1 cm Mu	ick (A9) (LRI	R F, G, I	H)		Depleted Matrix (F3)					d Vertic (F18)		
Depleted	d Below Dark	surfac	e (A11)	X	X Redox Dark Surface (F6)					Red Parent Material (TF2)		
Thick Da	ark Surface (A	A12)			Deplete	d Dark Su	urface (F7)		Very Sha	allow Dark Surface (TF12)		
Sandy M	lucky Minera	al (S1)		Redox Depressions (F8)					Other (Explain in Remarks)			
2.5 cm N	Aucky Peat o	or Peat (S2) (LRR	G, H) High Plains Depressions (F16)					³ Indicators of hydrophytic vegetation and			
5 cm Mu	icky Peat or I	Peat (S	3) (LRR F	(MLRA 72 & 73 of LRR H)				H)	wetland I	hydrology must be present,		
	-			· · · · · · · · · · · · · · · · · · ·					unless d	isturbed or problematic.		
Restrictive I	Layer (if pre	sent):										
Туре:												
Depth (inc	ches):								Hydric Soil P	resent? Yes <u>X</u> No		
Remarks:												
HYDROLO	GY											
Wetland Hyd	drology Indi	cators:										
Drimon (India	otoro (minim	um of a	no roquir	d: abaak a	that anal				Secondari	(Indicators (minimum of two required)		

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)) Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table (C	2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on I	Living Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous i	nspections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: MINOT	WARD	Sampling Date: 11/03/21				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 13U				
Investigator(s): KEVIN PLOOF	_ Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, conve	ex, none): <u>non</u>	1e Slope (%): 0-1				
Subregion (LRR): F Lat:	48.24461062 Lor	ng: -101.226	9824 Datum: NAD83				
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	cation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	_ (If no, explain in F	Remarks.)				
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significant	tly disturbed? Are "Norm	nal Circumstances" p	present? Yes X No				
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally (problematic? (If needed	l, explain any answe	ers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes NoX	- Is the Sampled Area						

Hydrophytic Vegetation Fresent? Hydric Soil Present? Wetland Hydrology Present?	Yes X No X	Is the Sampled Area within a Wetland?	Yes	NoX
Remarks: mostly dry in	the preceding wee	èks		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Drevelance Index weekshoets
2				
3				I otal % Cover of: Multiply by:
4				OBL species x 1 =
5.				FACW species x 2 =
		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
1. <u>Elymus trachycaulus</u>	40	Y	FACU	UPL species x 5 =
2. <u>Elymus repens</u>	35	Y	FACU	Column Totals: (A) (B)
3.Hordeum jubatum	10	N	FACW	
4.				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
·				3 - Prevalence Index is $\leq 3.0^{1}$
0				4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plot aize:	85	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
2	0.5			Hydrophytic Vegetation
% Bare Ground in Herb Stratum 15	65	= Fotal Cov	er	Present? Yes No X
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100 _						loam		
4-12	10YR 2/1	90 1	OYR	4/6	10	С	М	loam		
12-18	10YR 3/2	90 1	OYR	4/6	10	С	М	loam		
·					<u> </u>			·		
							. <u> </u>			
¹ Type: C=Co	oncentration, D=Depl	etion, RM=R	educed I	Matrix, CS	=Covered	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	ndicators: (Applica	able to all LF	Rs, unl	ess other	wise note	ed.)		Indicators for Problematic Hydric Soils':		
Histosol	(A1)			Sandy G	Bleyed Ma	trix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	bipedon (A2)			Sandy R	ledox (S5))		Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Descentions (12)		
Black Hi	stic (A3)			_ Stripped	Matrix (S	i6)				
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F)		Loamy C	Sleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73) Reduced Vertic (F18)		
1 cm Mu	ick (A9) (LRR F, G, H	1)	37	Depleted	d Matrix (H	-3)				
Depleted	Below Dark Surface	e (A11)	X	Redox D	oark Surfa	ce (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			Depleted	d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox Depressions (F8)					Other (Explain in Remarks)		
2.5 cm N	lucky Peat or Peat (S	62) (LRR G,	 H) High Plains Depressions (F16) 					³ Indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)				H)	wetland hydrology must be present,		
								unless disturbed or problematic.		
Restrictive I	_ayer (if present):									
Туре:			_							
Depth (ind	ches):		_					Hydric Soil Present? Yes X No		
Remarks:										
HYDROLO	GY									
Wetland Hvo	drology Indicators:									

welland right ology mulcators.		
Primary Indicators (minimum of one required	Secondary Indicators (minimum of two required)	
Surface Water (A1)	Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) (where tilled)
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes I	No X Depth (inches):	
Water Table Present? Yes I	No X Depth (inches):	
Saturation Present? Yes I (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No _X
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos, previous inspec	ions), if available:
Remarks:		

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT	WARD	Sampling Date: 11/03/21						
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>13W</u>						
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82						
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	x, none):CONC	slope (%): 0-2						
Subregion (LRR): F Lat: 4	8.24453439 Lon	g: -101.226	9523 Datum: NAD83						
Soil Map Unit Name: Tonka silt loam, 0-1% s	lopes	NWI classific	cation: <u>PEM1F</u>						
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No _X	(If no, explain in F	Remarks.)						
Are Vegetation $\underline{N}_{,}$ Soil $\underline{N}_{,}$ or Hydrology $\underline{N}_{,}$ significantl	y disturbed? Are "Norm	al Circumstances" p	present? Yes X No						
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally p	roblematic? (If needed	explain any answe	ers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locat	ions, transects	, important features, etc.						
Hydrophytic Vegetation Present? Yes X No Is the Sampled Area									

Hydric Soil	Present?			Yes _	<u>X</u>	No		within a Wetland?		Vas	Х	No	
Wetland Hydrology Present?			Yes_	Х	No								
Remarks:	mostly	dry	in	the	pre	ceding	wee	eks					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1		·		That Are OBL, FACW, or FAC
2		. <u> </u>		(excluding FAC ⁻). (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1		. <u> </u>		Dravalance Index workshoet
2				Tatal % Original for Multiply have
3		. <u></u>		Iotal % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
_		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
1. Apocynum cannabinum	12	N	FACW	UPL species x 5 =
_{2.} Typha angustifolia	55	Y	OBJ	Column Totals: (A) (B)
_{3.} Phalaris arundinacea	20	Y	FACW	
4 Spartina pectinata	8	Ν	FACW	Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6				\underline{X} 1 - Rapid Test for Hydrophytic Vegetation
7				\underline{X} 2 - Dominance Test is >50%
8				3 - Prevalence Index is $\leq 3.0^1$
0				4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10	05			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:	95	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
1				Under she die
2		- Tatal Car		Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5			ei	Present? Yes X No
Remarks:				1

Profile Desc	cription: (Describe	to the depth	needeo	d to docu	ment the	indicator	or confirm	n the absence of indicators.)				
Depth	Matrix											
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture Remarks				
0-4	10YR 2/1	100						SiL				
4-12	10YR 4/2	95 1	0YR	6/1	5		M	SiL				
									—			
¹ Type: C=C	oncentration, D=Dep	oletion, RM=R	educed	Matrix, C	S=Covere	d or Coate	ed Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Applic	cable to all LF	RRs, un	less othe	erwise not	ted.)		Indicators for Problematic Hydric Soils ³ :				
Histosol	(A1)		_	_ Sandy	Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)				
Histic Ep		_	_ Sandy	Redox (St	5)		Coast Prairie Redox (A16) (LRR F, G, H)					
Black Hi		_	_ Strippe	d Matrix (S6)		Dark Surface (S7) (LRR G)					
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)							High Plains Depressions (F16)					
Stratified	d Layers (A5) (LRR	F)	_	_ Loamy	Gleyed M	latrix (F2)		(LRR H outside of MLRA 72 & 73)				
1 cm Mu	JCK (A9) (LRR F, G ,	H)		<u>Neplete</u>	ed Matrix ((F3)		Reduced Vertic (F18) Red Parent Material (TE2)				
Depleted	a Below Dark Surfac	ce (A11)		_ Redox	Dark Surf	ace (F6)		Red Parenii Malenai (TF2)				
	Ark Sufface (A12)			_ Deplete	Doproces)	Very Shallow Dark Surface (TF12)				
	Aucky Milleral (ST)	(82) (I BB C	<u>ц</u> , —	_ Redux	Depressio	nis (Fo)	16)	Other (Explain in Remarks)				
2.5 CIII I	viucky real of real of	(32) (LKK G,	n) <u> </u>			72 of L DE	10) IU)	wetland bydrology must be present				
	icky real of real (3	5) (LKK F)		(1411			(п)	wetland hydrology must be present,				
Restrictive	aver (if present):											
Turner	Layer (il present).											
Type.	ah a a).											
Depth (in	cnes):							Hydric Soll Present? Yes <u>**</u> No				
Remarks:												
HYDROLO	GY											
Wetland Hy	drology Indicators:	:										
Primary India	cators (minimum of o	one reauired:	check a	ll that app	lv)			Secondary Indicators (minimum of two requir	red)			
Surface	Water (A1)			Salt Crus	t (B11)			Surface Soil Cracks (B6)				
High Wa	ater Table (A2)		—	Aquatic Ir	vertehrate	es (B13)		Sparsely Vegetated Concave Surface (P	38)			
Saturatio	on (A3)		—	Hydroaen	Sulfide O	odor (C1)		Drainage Patterns (B10)				

- ___ Oxidized Rhizospheres on Living Roots (C3)
 - (where tilled)
- Crayfish Burrows (C8)
- ______ Craynsm burrows (Co)

 ______ X

 Saturation Visible on Aerial Imagery (C9)

 ______ X

 ______ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
 - Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves ((B9)	Frost-Heave Hummocks (D7) (LRR F)								
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 (st	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:										

Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

_ Oxidized Rhizospheres on Living Roots (C3)

Water Marks (B1)

Drift Deposits (B3)

Iron Deposits (B5)

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date: 1	1/02/21				
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	1U-3				
Investigator(s): <u>KEVIN</u> PLOOF	Section, Tow	nship, Range:	22, 155,	82					
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex	k, none): <u>non</u>	.e Slope	e (%): 0-1				
Subregion (LRR): F Lat:	48.24285	5679 Long	<u>-101.221</u>	7452 Datum	NAD83				
Soil Map Unit Name: Vallers loam, saline,	0-1% slo	pes	NWI classific	ation: N/A					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)									
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significa	antly disturbed?	Are "Norma	al Circumstances" p	oresent? Yes X	No				
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natural	y problematic?	(If needed,	explain any answe	rs in Remarks.)					
SUMMARY OF FINDINGS – Attach site map show	ving sampling	point locati	ons, transects	, important fea	tures, etc.				
Hydrophytic Vegetation Present? Yes No X	la tha	Compled Area							
Hydric Soil Present? Yes No X	within	a Wetland?	Yes	No X					
Wetland Hydrology Present? Yes NoX			163						

Remarks:	mostly	dry	in	the	preceding	wee	ks

2.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. <u>Populus deltoides</u>	30	<u>Y</u>	<u>FAC</u>	That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	rer	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Duran lana a kada ana aka ka ata
2				Prevalence index worksneet:
3				I otal % Cover of: Multiply by:
4				OBL species x 1 =
5.				FACW species x 2 =
_	_	= Total Cov	rer	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
1. <u>Bromus inermis</u>	45	Y	UPL	UPL species x 5 =
_{2.} Poa pratensis	20	Y	FACU	Column Totals: (A) (B)
3. Elymus repens	25	Y	FACU	
4. Taraxacum officinale	5	N	FACU	Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
Q				3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:		= Total Cov	rer	¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
1				
2		- Total Car		Vegetation
% Bare Ground in Herb Stratum 5				Present? Yes No X
Remarks:				1

Profile Desc	cription: (Describe t	o the dept	h needed	to docui	ment the i	indicator	or confirn	the absence of indicators.)				
Depth	Matrix			Redo	x Feature	S						
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks				
0-4	10YR 2/1	100						CL				
4-8	10YR 2/1	95	10YR	5/4	5	С	М	CL				
8-16	10YR 3/3	95	10YR	2/1	2	С	М	loam				
			10YR	8/1	3	C	М	loam				
·				- / -								
1 T				Antria CO								
Hydric Soil	Indicators: (Application)			atrix, Ca	rwise not		a Sana G	Indicators for Problematic Hydric S				
Histosol				Sandy		(S4)			50113			
Histosol (A1) Histic Epipedon (A2)				Sandy I	Redax (SF	aunx (34)		Coast Prairie Redox (A16) (LRR F G H)				
Black Histic (A3)				Strippe	d Matrix (S	56)		Dark Surface (S7) (LRR G)				
Hydrogen Sulfide (A4)				Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)				
Stratified	d Lavers (A5) (LRR F	⁻)		Loamy	Gleved M	atrix (F2)		(LRR H outside of MLRA 72 & 73)				
1 cm Mu	uck (A9) (LRR F, G, H	, 1)		Deplete	ed Matrix (F3)		Reduced Vertic (F18)				
Deplete	d Below Dark Surface	, (A11)		Redox I	Dark Surfa	ace (F6)		Red Parent Material (TF2)				
Thick Da	ark Surface (A12)			Deplete	d Dark Su	urface (F7)		Very Shallow Dark Surface (TF12)				
Sandy N	/lucky Mineral (S1)			Redox	Depressio	ns (F8)		Other (Explain in Remarks)				
2.5 cm I	Mucky Peat or Peat (S	62) (LRR G	, H)	High Pl	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and				
5 cm Mu	ucky Peat or Peat (S3	5) (LRR F)		(ML	.RA 72 &	73 of LRR	H)	wetland hydrology must be present,				
								unless disturbed or problematic.				
Restrictive	Layer (if present):											
Туре:												
Depth (in	ches):							Hydric Soil Present? Yes	No <u>X</u>			
Remarks:												
HYDROLO	GY											
Wetland Hy	drology Indicators:											
Primary India	cators (minimum of or	ne required	check all	that appl	y)			Secondary Indicators (minimum of	two required)			
Surface	Water (A1)		S	alt Crust	(B11)			Surface Soil Cracks (B6)				
High Wa	ater Table (A2)		A	quatic In	vertebrate	es (B13)		Sparsely Vegetated Concave	Surface (B8)			
Saturati	on (A3)		F	Ivdrogen	Sulfide O	dor (C1)		Drainage Patterns (B10)	. ,			
Water N	larks (B1)		C	ry-Seaso	on Water	Table (C2)		Oxidized Rhizospheres on Living Roots (C3)				

 Oxi	dized	Rhiz	ospheres	on Living	Roots	(C3)
,			•			

- (where tilled)
- Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:										
Surface Water Present?	Yes	NoX	Depth (inches):							
Water Table Present?	Yes	NoX	Depth (inches):							
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes	No _	Х		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:										

____ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

____ Sediment Deposits (B2)

____ Algal Mat or Crust (B4)

____ Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

Iron Deposits (B5)

____ Drift Deposits (B3)

Yes X No

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT	WARD	Sampling Date: 11/02/21				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>1W-3</u>				
Investigator(s): KEVIN PLOOF	Section, Township, Range:	22, 155,	82				
Landform (hillslope, terrace, etc.): small basin	Local relief (concave, conve	ex, none): CONCa	ave Slope (%):0 - 2				
Subregion (LRR):F Lat:	<u>48.24289196</u> Lon	g:101.221	L6463 Datum: NAD83				
Soil Map Unit Name: Vallers loam, saline,	0-1% slopes	NWI classific	cation: PEM1A				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \underline{X} (If no, explain in Remarks.)							
Are Vegetation, Soil, or Hydrology signification	antly disturbed? Are "Norm	al Circumstances" p	present? Yes X No				
Are Vegetation, Soil, or Hydrology natural	ly problematic? (If needed	, explain any answe	ers 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	1					

within a Wetland?

Remarks:	mostlv	drv	in	the	preceding	weeks

Yes X No

Yes <u>X</u> No _____

VEGETATION – Use scientific names of plants.

Hydric Soil Present?

Wetland Hydrology Present?

	AL L (<u> </u>	1 12 1		
Trop Stratum (Plot size: 30)	Absolute % Covor	Dominant Species2	Status	Dominance Test worksheet:	
		<u>- Species</u>		Number of Dominant Species	
1. <u>Populus deltoides</u>	30	<u> </u>	FAC	That Are OBL, FACW, or FAC	(A)
2					(A)
3.				Total Number of Dominant	
4				Species Across All Strata: 2	(B)
		- Tatal Ca			
Sanling/Shrub Stratum (Plot size:			ver	Percent of Dominant Species 100	
				That Are OBL, FACW, or FAC:	_ (A/B)
1			. <u> </u>	Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3					
4					
5.				FACW species x 2 =	
		= Total Co	ver	FAC species x 3 =	
Herb Stratum (Plot size: 5)		10101 00		FACU species x 4 =	
1. Phalaris arundinacea	80	Y	FACW	UPL species x 5 =	
2 Elvmus repens	5	N	FACU	Column Totals: (A)	(B)
2					()
3				Prevalence Index = B/A =	
4				Hydrophytic Vegetation Indicators:	
o			·	X 1 - Rapid Test for Hydrophytic Vegetation	
6				X 2 - Dominance Test is >50%	
7				3 - Prevalence Index is ≤3.0 ¹	
8				4 - Morphological Adaptations ¹ (Provide su	Innortina
9				data in Remarks or on a separate shee	t)
10				Problematic Hydrophytic Vegetation ¹ (Exp	ain)
	85	= Total Co	ver		,
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology	/ must
1				be present, unless disturbed or problematic.	
2.				Hydrophytic	
		= Total Co	ver	Vegetation	
% Bare Ground in Herb Stratum 15				Present? Yes No	
Remarks:				1	

Profile Desc	cription: (Describe t	o the depth ne	eded to docur	nent the i	ndicator	or confirm	the absence	of indicators	.)
Depth	Matrix		Redo	x Features	s ,				
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-8	10YR 2/1						SCL	mixed	fill
	5R 4/6	20							
	10YR 5/1	20							
8-14	10YR 2/1	40					CL	mixed	fill
	10YR 4/2	40							
	10YR 8/1	20							
			ucod Matrix CS		d or Costo	d Sand Cr		cation: DI -Do	rolining M-Matrix
Hydric Soil	Indicators: (Applica	ble to all I RR	s unless other	wise not			Indicators	for Problema	atic Hydric Soils ³
Histosol	(A1)		Sandy (riv (S1)		1 cm l		
Histic Er	nipedon (A2)		Sandy C	Redox (S5			Coast	Prairie Redox	(A16) (I RR F G H)
Black Hi	istic (A3)		Stripped	d Matrix (S	, 6)		Dark S	Surface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy I	Mucky Mir	neral (F1)		High F	Plains Depress	ions (F16)
Stratified	d Layers (A5) (LRR F)	Loamy	Gleyed Ma	atrix (F2)		(LF	RR H outside	of MLRA 72 & 73)
1 cm Mu	uck (A9) (LRR F, G, H)	Deplete	d Matrix (I	F3)		Reduc	ced Vertic (F18	3)
Depleted Below Dark Surface (A11)			Redox Dark Surface (F6)				Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deplete	d Dark Su	rface (F7)		Very S	Shallow Dark S	Surface (TF12)
Sandy Mucky Mineral (S1)			Redox Depressions (F8)				\underline{X} Other (Explain in Remarks)		
2.5 cm N	Mucky Peat or Peat (S	2) (LRR G, H)	High Pla	ains Depre	essions (F	16)	Indicators	of hydrophytic	c vegetation and
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetlan	d hydrology m	ust be present,
Restrictive	Laver (if present):						unies		
Type:									
Depth (in	ches):						Hydric Soi	Present?	Yes X No
Remarks:	soils are d	isturbe	d they h	ave h	een f	illed			
	borrs are a	ISCUIDC	a circy ii	ave r		CU	•		
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of or	e required; ch	eck all that apply	<u>y)</u>			Second	ary Indicators ((minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Sur	face Soil Cracl	ks (B6)
High Wa	ater Table (A2)		Aquatic Inv	vertebrate	s (B13)		Spa	arsely Vegetate	ed Concave Surface (B8)
Saturatio	on (A3)		Hydrogen	Sulfide Oc	dor (C1)		Dra	inage Patterns	s (B10)
Water M	larks (B1)		Dry-Seaso	on Water T	able (C2)		Oxi	dized Rhizospl	heres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots (C3) (v	vhere tilled)	
Drift Dep	posits (B3)		(where I	not tilled)			Cra	yfish Burrows	(C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4)	<u>×</u> Sat	uration Visible	on Aerial Imagery (C9)
Iron Dep	oosits (B5)		Thin Muck	Surface (C7)		<u> </u>	omorphic Posit	tion (D2)

Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	X Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)			
Field Observations:				
Surface Water Present? Yes No	X Depth (inches):			
Water Table Present? Yes No	X Depth (inches):			
Saturation Present? Yes <u>No</u> (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Present? Yes X No		
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspec	ctions), if available:		
Remarks:				

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:	WARD	Sampling Date: 11/03/21
Applicant/Owner: PORT OF ND		State: <u>ND</u>	Sampling Point: 12U
Investigator(s): <u>KEVIN</u> PLOOF	_ Section, Township, Range: _	16, 155,	82
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, conve	x, none): <u>non</u>	.e Slope (%): <u>0-1</u>
Subregion (LRR): F Lat:	18.24473197 Long	g:101.227	4597 Datum: NAD83
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significant Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally provide the set of the	year? Yes <u>No X</u> ly disturbed? Are "Norma problematic? (If needed,	(If no, explain in R al Circumstances" p explain any answe	emarks.) present? Yes X No rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ig sampling point locati	ons, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No	 Is the Sampled Area within a Wetland? 	Yes	NoX

|--|

Wetland Hydrology Present? Yes No X

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-):
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
		= Total Co	/er	Demonst of Deminent Creation
Sapling/Shrub Stratum (Plot size:)		rotar co		That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksneet:
3				Total % Cover of:Multiply by:
4.				OBL species x 1 =
5	_			FACW species x 2 =
0		- Total Co	(or	FAC species x 3 =
Herb Stratum (Plot size: 5)		- 10tal C0		FACU species x 4 =
1. Elymus trachycaulus	60	Y	FACU	UPL species x 5 =
2. Elymus repens	25	Y	FACU	Column Totals: (A) (B)
3.Hordeum jubatum	10	N	FACW	
4				Prevalence Index = B/A =
5	_			Hydrophytic Vegetation Indicators:
6.		·	·	1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
/			·	3 - Prevalence Index is $≤3.0^1$
8				4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10			·	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vino Stratum (Plot size:	90	= Total Co	/er	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
l				
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 10	90	= Total Co	/er	Present? Yes No X
Remarks:				

Profile Desc	ription: (Describe	to the depth ne	eded	to docun	nent the i	ndicator o	or confirn	n the absence of indicators.)
Depth	Matrix			Redox	x Features	S		
(inches)	Color (moist)	<u>%</u> C	olor (n	noist)	%	Type ¹	Loc ²	Texture Remarks
0-4	10YR 2/1	100						loam
4-12	10YR 2/1	90 10)YR	4/6	10	C	М	loam
12-18	10YR 3/2	90 10)YR	4/6	10	С	М	loam
$\frac{1}{1}$ Type: C=C		etion RM=Red	uced N	Aatrix CS	=Covered	d or Coate	 d Sand Gi	$\frac{2}{1000}$
Hydric Soil	Indicators: (Applica	able to all LRR	s, unle	ess other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)			Sandy G	Bleyed Ma	ıtrix (S4)		1 cm Muck (A9) (LRR I, J)
Histic Ep	bipedon (A2)			Sandy R	Redox (S5)		Coast Prairie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)			Stripped	Matrix (S	6)		Dark Surface (S7) (LRR G)
Hydroge	n Sulfide (A4)			Loamy N	Aucky Mir	neral (F1)		High Plains Depressions (F16)
Stratified	Layers (A5) (LRR F	;)		Loamy (Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)
1 cm Mu	ick (A9) (LRR F, G, H) 1)		Depleted	d Matrix (F	=3)		Reduced Vertic (F18)
Depleted	d Below Dark Surface	é (A11)	Х	Redox D) ark Surfa	, ice (F6)		Red Parent Material (TF2)
Thick Da	ark Surface (A12)	()		Depleter	d Dark Su	rface (F7)		Very Shallow Dark Surface (TE12)
Sandy M	Aucky Mineral (S1)			Redox C)enressio	ns (F8)		Other (Explain in Remarks)
2.5 cm M	Aucky Peat or Peat (High Pla	ine Donre	$E_{\rm recions}$ (F	16)	³ Indicators of hydrophytic vegetation and
2.0 CII II	Nucky real of real ($(\mathbf{L}\mathbf{R}\mathbf{K}\mathbf{G},\mathbf{H})$		/MI 1			u)	wetland bydrology must be procent
	icky real of real (33))(LKK F)			KA 12 0. I	5 OI LKK	п)	unless disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	ches):							Hydric Soil Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of o	ne required; che	eck all	that apply	()			Secondary Indicators (minimum of two required
Surface	Water (A1)		s	alt Crust	(B11)			Surface Soil Cracks (B6)
High Wa	ter Table (A2)		A	quatic Inv	/ertebrate	s (B13)		Sparsely Vegetated Concave Surface (B8)

	()
5	Sparsely Vegetated Concave Surface (B8)
[Drainage Patterns (B10)
0	vidized Phizeenhoree on Living Poets (C

Oxidized	Rhizospheres	on Living	Roots	(C3)
(where	tilled)			

	,
Cravfish	Burrows (C8)

(Saturation	Vicible on	Aorial	Imagony	(CO)
	Jaiuraiiur		ACHAI	IIIIauciv	1031

____ Geomorphic Position (D2)

EAC-Neutral Test	(D5)
FAC-Neutral Test	(ມວ)

____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:								
Surface Water Present?	Yes	No	Depth (inches):					
Water Table Present?	Yes	No	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes	No	x
Describe Recorded Data (st	ream gauge	, monitoring v	well, aerial photos,	previous inspec	tions), if available:			

____ Oxidized Rhizospheres on Living Roots (C3)

Hydrogen Sulfide Odor (C1)

____ Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Remarks:

_ Saturation (A3)

Water Marks (B1)

Sediment Deposits (B2)
 Drift Deposits (B3)

____ Algal Mat or Crust (B4)

Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

Iron Deposits (B5)

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: _ MINOT	WARD	Sampling Date: 11/03/21				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 12W				
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	ex, none):COr	1cave				
Subregion (LRR): F Lat:	48.24480167 Lon	g: <u>-101.227</u>	5575 Datum: NAD83				
Soil Map Unit Name: Heimdal-Wyard loams, 0-3% slopes NWI classification: PEM1F							
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	(If no, explain in F	Remarks.)				
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significar	tly disturbed? Are "Norm	al Circumstances"	present? Yes X No				
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally	problematic? (If needed	, explain any answe	ers 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	1					

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: mostly dry in	n the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cove	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: 100 (A/B)
1				Duranda wa a hada wa alaba a ƙ
2				Prevalence index worksneet:
3				I otal % Cover of: Multiply by:
4				OBL species x 1 =
5.				FACW species x 2 =
		= Total Cove	۶r	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
_{1.} _Phalaris arundinacea	10	N	FACW	UPL species x 5 =
_{2.} Typha angustifolia	70	Y	OBL	Column Totals: (A) (B)
3.				
4.				Prevalence Index = B/A =
5		· · · · ·		Hydrophytic Vegetation Indicators:
6				\underline{X} 1 - Rapid Test for Hydrophytic Vegetation
7				\underline{X} 2 - Dominance Test is >50%
7				3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plot aize:	80	= Total Cove	er	¹ Indicators of bydric soil and wetland bydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 20		= Total Cove	er	Present? Yes X No
Remarks:				

Profile Desc	cription: (Describe	to the dep	th needed	to docun	nent the	indicator	or confirm	n the absence of	f indicators.)		
Depth Matrix Redox Features											
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
	<u>10YR 2/1</u>	100						<u>loam</u>			
4-10	10YR 4/2	95	10YR	6/8	5	С	М	loam			
10-16	10YR 3/1	95	10YR	6/8	5	С	М	SaL			
						·					
					·	·					
·					·	·					
						·					
¹ Type: C=C	oncentration, D=Depl	letion, RM=	Reduced	Matrix, CS	=Covere	d or Coate	d Sand G	rains. ² Locat	tion: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Application)	able to all	LRRs, unl	ess other	wise not	ed.)		Indicators fo	or Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy G	Bleyed Ma	atrix (S4)		1 cm Mu	ck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)			_ Sandy F	Redox (S5	5)		Coast Pr	airie Redox (A16) (LRR F, G, H)		
Black Hi	istic (A3)			_ Stripped	Matrix (S	56)		Dark Sur	face (S7) (LRR G)		
Hydroge	en Sulfide (A4)	-\	. <u> </u>	_ Loamy I	Mucky Mi	neral (F1)		High Plai	ins Depressions (F16)		
Stratified	Layers (A5) (LRR F	-) -)	x	_ Loamy (oleyed IVI d Matrix (atrix (FZ) F3)		(LKK Reduced	(LRR H outside of MLRA 72 & 73) Boducod Vortic (E18)		
Deplete	d Below Dark Surface	•) e (A11)		Redox [Dark Surfa	ace (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)			Deplete	d Dark Su	urface (F7)		Very Shallow Dark Surface (TF12)			
Sandy M	lucky Mineral (S1)			Redox [Depressio	ns (F8)		Other (Explain in Remarks)			
2.5 cm M	Mucky Peat or Peat (S2) (LRR (S, H)	_ High Pla	ains Depre	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	ucky Peat or Peat (S3	B) (LRR F)		(ML	RA 72 &	73 of LRR	H)	wetland h	nydrology must be present,		
Destrictive	lover (if present);							unless di	isturbed or problematic.		
Turney	Layer (ii present):										
Type:											
Deptn (In	cnes):							Hydric Soli Pi	resent? Yes <u>~</u> No		
Remarks:											
HYDROLO	GY										
Wetland Hy	drology Indicators:										
Primary India	cators (minimum of o	ne required	l; check al	that apply	/)			Secondary	Indicators (minimum of two required)		
Surface	Water (A1)		9	Salt Crust	(B11)			Surfac	ce Soil Cracks (B6)		
High Wa	ater Table (A2)			Aquatic Inv	/ertebrate	es (B13)		Sparse	ely Vegetated Concave Surface (B8)		
Saturatio	Saturation (A3) Hydrogen Sulfide Odor (C1)				Draina	age Patterns (B10)					
Water M	larks (B1)		[Dry-Seaso	n Water 1	Table (C2)		Oxidiz	ed Rhizospheres on Living Roots (C3)		
Sedimer	nt Deposits (B2)		(Dxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (whe	ere tilled)		
Drift Dep	posits (B3)			(where r	not tilled)	1		Crayfis	sh Burrows (C8)		
Algal Ma	at or Crust (B4)		I	Presence	of Reduce	ed Iron (C4	+)	X Satura	ation Visible on Aerial Imagery (C9)		
Iron Dep	oosits (B5)			Thin Muck	Surface	(C7)		X Geom	orphic Position (D2)		
Inundati	on Visible on Aerial I	magery (B7	7)(Other (Exp	lain in Re	emarks)		X FAC-N	Neutral Test (D5)		

- Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) X FAC-Neutral Test (D5)

Water-Stained Leaves ((B9)	Frost-Heave Humn	nocks (D7)(LRR F)				
Field Observations:							
Surface Water Present?	Yes No _X	Depth (inches):	_				
Water Table Present?	Yes No _X	Depth (inches):	_				
Saturation Present? (includes capillary fringe)	Yes <u>No X</u>	_ Depth (inches):	_ Wetland Hydrology Present? Y	res <u>X</u> No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date: 1	1/03/21		
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	18U		
Investigator(s): <u>KEVIN</u> PLOOF	Section, Tow	nship, Range: _	16, 155,	82			
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, conve	x, none): <u>non</u>	.e Slope	e (%): <u>0-1</u>		
Subregion (LRR): F Lat	48.24656	776 Long	g: <u>-101.228</u>	0301 Datum	NAD83		
Soil Map Unit Name: Hamerly-Wyard loams, 0-3% slopes NWI classification: N/A							
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	No X	(If no, explain in R	emarks.)			
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed?	Are "Norma	al Circumstances" p	oresent? Yes X	No		
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ natural	ly problematic?	(If needed,	explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No	Is the	Sampled Area					
Hydric Soil Present? Yes No	within	a Wetland?	Yes	No X			
Wetland Hydrology Present? Yes No X	<u> </u>						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Iree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1		·		(A)
2		·		
3		·		Total Number of Dominant Species Across All Strata: 3 (B)
4		Tatal Car		
Sapling/Shrub Stratum (Plot size:)			/er	Percent of Dominant Species That Are OBL_EACW or EAC: 0 (A/B)
1				
2				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.	-			OBL species x 1 =
5.				FACW species x 2 =
		= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size:)				FACU species x 4 =
_{1.} Elymus repens	20	<u>Y</u>	FACU	UPL species x 5 =
2. <u>Elymus trachycaulus</u>	25	<u>Y</u>	FACU	Column Totals: (A) (B)
3. <u>Brassica rapa</u>	30	<u>Y</u>	UPL	Prevalence Index = B/A =
4		·		Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8 9		·		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	75	= Total Cov	/er	1
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1		·		
2				Hydrophytic
% Bare Ground in Herb Stratum 25		= Total Cov	/er	Present? Yes <u>No X</u>
Remarks: edge of planted canola	field	d		
		-		

Profile Desc	ription: (Describe	to the dept	th needed to docu	ment the i	ndicator	or confirm	the absence of indicators.)			
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks			
0-4	10YR 2/1	100					_loam			
4-12	10YR 3/1	100					loam			
12-18	10YR 3/2	90	10YR 4/6	10	C	М	loam			
							·			
					. <u></u>					
		letion RM=			d or Coate	d Sand Gr	ains ² Location: PL=Pore Lining M=Matrix			
Hydric Soil	Indicators: (Application)	able to all	LRRs, unless othe	erwise not	ed.)	u Sanu Gi	Indicators for Problematic Hydric Soils ³ :			
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)			
Histic Ep	oipedon (A2)		Sandy Redox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	stic (A3)		Strippe	d Matrix (S	6)		Dark Surface (S7) (LRR G)			
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)				High Plains Depressions (F16)			
Stratified	Layers (A5) (LRR F)	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)			
1 cm Mu	ick (A9) (LRR F, G, H	-)	Deplete	ed Matrix (I	F3)		Reduced Vertic (F18)			
Depleted	Below Dark Surface	e (A11)	Redox	Dark Surfa	ice (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)		Deplete	ed Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)			
Sandy M	lucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (Explain in Remarks)			
2.5 cm N	/lucky Peat or Peat (S2) (LRR G	6, H) High P	lains Depre	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	icky Peat or Peat (S3	B) (LRR F)	(MI	LRA 72 & 7	73 of LRR	H)	wetland hydrology must be present,			
							unless disturbed or problematic.			
Restrictive L	_ayer (if present):									
Туре:										
Depth (inc	ches):						Hydric Soil Present? Yes No _X	<u> </u>		
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators:									

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe-	ctions), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOT	WARD	Sampling Date: 11/03/21
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 18W
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	ex, none):COT	slope (%): 0-2
Subregion (LRR): F Lat:	48.24644469 Lor	g:101.228	Datum: NAD83
Soil Map Unit Name: Heimdal-Wyard loams,	0-3% slopes	NWI classifi	cation: PEM1C
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No _X	_ (If no, explain in F	Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signification	antly disturbed? Are "Norn	al Circumstances"	present? Yes X No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natural	y problematic? (If needed	, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locat	ions, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area	1	
Hydric Soil Present? Yes X No		· v	

Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> No Yes <u>X</u> No	within a Wetland?	Yes_X No
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2)
3				Total Number of Dominant	
4				Species Across All Strata: (B)	
		= Total Cove	er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/E	B)
1					
2				Prevalence index worksheet:	
3				Total % Cover of: Multiply by:	
4.				OBL species x 1 =	
5.				FACW species x 2 =	
		= Total Cove	er	FAC species x 3 =	
Herb Stratum (Plot size: 5)			, ,	FACU species x 4 =	
_{1.} Spartina pectinata	35	Y	FACW	UPL species x 5 =	ļ
_{2.} Typha angustifolia	45	Y	OBL	Column Totals: (A) (B	3)
3.					
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6				X 1 - Rapid Test for Hydrophytic Vegetation	
0				X 2 - Dominance Test is >50%	
7				3 - Prevalence Index is ≤3.0 ¹	
8				4 - Morphological Adaptations ¹ (Provide supportir	ng
9				data in Remarks or on a separate sheet)	0
10				Problematic Hydrophytic Vegetation ¹ (Explain)	
	80	= Total Cove	er	¹ Indiantors of hydric coil and watland hydrology must	
<u>woody vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.	
1				······································	
2				Hydrophytic	
% Para Cround in Harb Stratum 20		= Total Cove	er	Present? Yes X No	

Profile Description: (De	escribe to the dep	th needed to do	cument the	indicator	or confirm	m the absence of indicators.)		
Depth	Matrix	Redox Features						
(inches) Color (m	noist) %	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
<u> 0-4 10YR 2</u>	/1 100					<u>loam</u>		
<u>4-10</u> 10YR 3	/1 95	10YR 6/8	3 5	С	М	loam		
10-16 10YR	3/1 95	10YR 6/8	3 5	С	Μ	SaL		
		-			- <u> </u>			
						· · · · · · · · · · · · · · · _		
						·		
¹ Type: C=Concentration,	D=Depletion, RM	Reduced Matrix,	CS=Covere	ed or Coat	ed Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators:	(Applicable to all	LRRs, unless of	herwise no	ted.)		Indicators for Problematic Hydric Soils ³ :		
Histosol (A1)		Sano	ly Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Epipedon (A2)		Sano	ly Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Histic (A3)	4)	Strip	ped Mudky M	50) inorol (51)		Dark Surface (S7) (LRR G)		
Hydrogen Sumae (A4	+) \	Loar	ny Mucky M	Ineral (F1) Intriv (E2)		(I BB H outside of MI BA 72 & 72)		
1 cm Muck (Δ9) (LR	REGH)	Luai Deni	eted Matrix	(F3)		Reduced Vertic (E18)		
Depleted Below Dark	(Surface (A11)	X Red	ox Dark Sur	(F6)		Red Parent Material (TE2)		
Thick Dark Surface (A12)	Depl	eted Dark S	urface (F7)	Very Shallow Dark Surface (TE12)		
Sandy Mucky Minera	l (S1)	Bed	ox Depressi	ons (F8)	/	Other (Explain in Remarks)		
2.5 cm Mucky Peat of	or Peat (S2) (LRR (G. H) High	Plains Dep	ressions (I	-16)	³ Indicators of hydrophytic vegetation and		
5 cm Mucky Peat or	Peat (S3) (LRR F)	-,, <u> </u>	MLRA 72 &	73 of LR	RH)	wetland hydrology must be present.		
		,			,	unless disturbed or problematic.		
Restrictive Layer (if pre	sent):							
Туре:								
Depth (inches):						Hydric Soil Present? Yes X No		
Remarks:								
HYDROLOGY								
Wetland Hydrology Indi	cators:							
Primary Indicators (minim	num of one require	d; check all that a	pply)			Secondary Indicators (minimum of two required)		
Surface Water (A1)		Salt Cr	ust (B11)			Surface Soil Cracks (B6)		
High Water Table (A	2)	Aquatio	Invertebrat	es (B13)		Sparsely Vegetated Concave Surface (B8)		
Saturation (A3)		Hydrogen Sulfide Odor (C1)				Drainage Patterns (B10)		

- _ Oxidized Rhizospheres on Living Roots (C3)
 - (where tilled)
- Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
 - Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves (B9)		Frost-Heave Humm	ocks (D7) (LRR F)
Field Observations:				
Surface Water Present?	Yes <u>No</u>	X Depth (inches):		
Water Table Present?	Yes No	X Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes <u>No</u>	X Depth (inches):	Wetland Hydrology Present? Y	es <u>X</u> No
Describe Recorded Data (st	ream gauge, monito	oring well, aerial photos, previo	bus inspections), if available:	
Remarks:				

Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

___ Oxidized Rhizospheres on Living Roots (C3)

Water Marks (B1)

Drift Deposits (B3)

Iron Deposits (B5)

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT C	Dity/County: MINOT WARD Sampling Date: <u>11/03/21</u>
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>19U</u>
Investigator(s): KEVIN PLOOF	Section, Township, Range: <u>16</u> , 155, 82
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): Slope (%):
Subregion (LRR): F Lat: 48	3.24614828 Long: -101.2306751 Datum: NAD83
Soil Map Unit Name: Hamerly-Wyard loams, 0-3	% slopes NWI classification:N/A
Are climatic / hydrologic conditions on the site typical for this time of yea	r? Yes No X (If no, explain in Remarks.)
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significantly c	Jisturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally prot	plematic? (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 NoX	Is the Sampled Area
Hydric Soil Present? Yes NoX	within a Wetland? Yes No X
Wetland Hydrology Present? Yes <u>No X</u>	

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3	<u> </u>			Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
		- Total Cov		FAC species x 3 =
Herb Stratum (Plot size: ⁵)		- 10181 COV		FACU species x 4 =
1 Brassica rapa	50	Y	UPL	UPL species x 5 =
2 Artemisa biennis	15	N	FACU	Column Totals: (A) (B)
2				
3				Prevalence Index = B/A =
4			·	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				3 - Prevalence Index is < 3.01
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	65	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 35	35	= Total Cov	/er	Vegetation Present? Yes No X
Remarks:				
planted canola field				

Profile Desc	ription: (Describe	to the dep	h needed to docu	iment the i	ndicator	or confirm	n the absence of indicators.)		
Depth	Matrix		Red	ox Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100					loam		
4-12	10YR 3/1	100					loam		
12-18	10YR 3/2	90	10YR 4/6	10	С	М	loam		
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators: (Application)	able to all	LRRs, unless oth	erwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy	Redox (S5	i)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		Strippe	ed Matrix (S	S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	-)	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
	CK (A9) (LRR F, G, F	H) - (A44)	Depiet	ed Matrix (F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (ATT)	Redox	Dark Suna	ace (F6)		Red Parent Material (TF2)		
	Irk Surface (A12)		Depier	ed Dark Su	mace (F7)		Very Shallow Dark Sufface (TFT2)		
	lucky Mineral (S1)		Redox		NS (F8)	10)	<u>Uther (Explain in Remarks)</u>		
2.5 cm iv	lucky Peat of Peat (, н) <u>н</u> ніgh Р			10)	indicators of hydrophytic vegetation and		
	cky Peat of Peat (53	5)(LRR F)	(14)	LRA / 2 & .	13 OF LRR	H)	unless disturbed or problematic.		
Restrictive L	ayer (if present):								
Туре:									
Depth (inc	ches):						Hydric Soil Present? Yes No _X	-	
Remarks:									
HYDROLO	GY								
Wetland Hyd	drology Indicators:								

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on Li	ving Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iron (C	4) Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in	spections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:MINOT	WARD	Sampling Date: 11/03/21			
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 19W			
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82			
Landform (hillslope, terrace, etc.): basin	_ Local relief (concave, conve	ex, none):COT	1cave			
Subregion (LRR): F Lat:	48.24623474 Lor	ng:101.230	7752 Datum: NAD83			
Soil Map Unit Name: Heimdal-Wyard loams, 0-	-3% slopes	NWI classific	cation: PEM1C			
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	_ (If no, explain in R	Remarks.)			
Are Vegetation $_\mathrm{N}$, Soil $_\mathrm{N}$, or Hydrology $_\mathrm{N}$ significant	ly disturbed? Are "Norm	nal Circumstances" p	present? Yes X No			
Are Vegetation $_\mathrm{N}$, Soil $_\mathrm{N}$, or Hydrology $_\mathrm{N}$ naturally p	oroblematic? (If needed	, explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
		,	, p ,,,			
Hydrophytic Vegetation Present? Yes X No	- Is the Sampled Area	1				

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	within a Wetland?	Yes X No
Remarks: mostly dry ir	n the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	(•)
2					(A)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:100	(A/B)
1					
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	_
4.				OBL species x 1 =	_
5				FACW species x 2 =	_
· · ·		= Total Cov	or	FAC species x 3 =	_
Herb Stratum (Plot size: ⁵)				FACU species x 4 =	_
_{1.} Spartina pectinata	75	Y	FACW	UPL species x 5 =	_
2. Sonchus arvense	10	N	FAC	Column Totals: (A)	(B)
3 Phalaris arundinacea	10	N	FACW	()	_ 、 /
4				Prevalence Index = B/A =	_
5				Hydrophytic Vegetation Indicators:	
				X 1 - Rapid Test for Hydrophytic Vegetation	
0				X 2 - Dominance Test is >50%	
/				3 - Prevalence Index is ≤3.0 ¹	
8				4 - Morphological Adaptations ¹ (Provide supp	porting
9				data in Remarks or on a separate sheet)	Ũ
10				Problematic Hydrophytic Vegetation ¹ (Explain	n)
	80	= Total Cov	er		
<u>woody vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.	lusi
1				······································	
2				Hydrophytic	
% Date Crowned in Llash Streture 20		= Total Cov	er	Present? Yes X No	
% Bare Ground in Herb Stratum					
Remarks:					

Profile Desc	cription: (Describe	to the dept	h needed	to docun	nent the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix	<u> </u>		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (<u>moist)</u>	%	Type ¹	Loc ²	Texture Remarks		
0-4	<u>10YR 2/1</u>	100						_loam		
4-10	10YR 3/1	95	10YR	6/8	5	С	М	loam		
10-16	10YR 3/1	95	10YR	6/8	5	С	М	SaL		
					·					
							·			
					·					
1										
'Type: C=C	oncentration, D=Dep	letion, RM=	Reduced	Matrix, CS	S=Covere	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soli	indicators: (Applica	adie to all L	.RRS, UNI	ess other	wise not	ea.)		Indicators for Problematic Hydric Solis :		
Histosol	(A1)			Sandy G	Sleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
	pipedon (AZ)			Sandy F	Kedox (St) 26)		Coast Prairie Redox (A16) (LRR F, G, H)		
	ISUC (AS) $Sulfide (A4)$				i Mucky Mi	50) noral (E1)		Dark Surface (S7) (LRR G)		
Hyuroge	d Lovero (A5) (LPP F	-						(I BB H outside of MI BA 72 & 72)		
Stratilied		-) -)		Donloto	d Matrix (E3)		(LRK H OUISIDE OF MERA 72 & 73) Reduced Vertic (E18)		
T ciri Mit	d Rolow Dark Surface	1) > (A11)	x		u Wallik (1 J) 200 (E6)		Reduced Vehic (FTo)		
Depieter	ark Surface (A12)	= (ATT)			d Dark Suile	urface (F7		Red Parent Material (TF2)		
Sandy M	Aucky Mineral (S1)			Redox [)enressio			Very Shallow Dark Sufface (1F12)		
2.5 cm l	Mucky Peat or Peat (S2) (I RR G	H)	High Pla	ains Denr	essions (F	16)	³ Indicators of hydrophytic vegetation and		
<u> </u>	icky Peat or Peat (S?		,,	(MI	RA 72 &	73 of I RE	· H)	wetland hydrology must be present		
0 0111110)(ERRT)					,	unless disturbed or problematic.		
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):							Hydric Soil Present? Yes X No		
Remarks:										
	GY									
	drology Indicators:									
Primary Indi	cators (minimum of o	ne required	check all	that annly	0			Secondary Indicators (minimum of two required)		
Surface	Water (A1)			Salt Cruet	(B11)			Surface Soil Cracks (B6)		
High Wa	ater Table (A2)			Aquatic Inv	(ertebrate	es (B13)		Sparsely Vegetated Concave Surface (B8)		
Saturati	on (A3)		Hydrogen Sulfide Odor (C1)					Sparsely vegetated Concave Surface (B8) Drainage Patterns (B10)		

- _ Oxidized Rhizospheres on Living Roots (C3)
 - (where tilled)
- Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
 - Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)	
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 (str	ream gauge, monitoring v	well, aerial photos, previous inspe	ections), if available:
Remarks:			

Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

_ Oxidized Rhizospheres on Living Roots (C3)

Water Marks (B1)

____ Sediment Deposits (B2)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Drift Deposits (B3)

Iron Deposits (B5)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/03/21							
Applicant/Owner: PORT OF ND	State: ND Sampling Point: 17U							
Investigator(s): KEVIN PLOOF	Section, Township, Range: 16, 155, 82							
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): NONE Slope (%):							
Subregion (LRR): F Lat:	48.24722407 Long: -101.2272093 Datum: NAD83							
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes NWI classification: N/A							
Are climatic / hydrologic conditions on the site typical for this time o	Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significant	ntly disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} 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 No X								

Hydric Soil Present? Wetland Hydrology Present?	Yes X No X Yes No X	within a Wetland?	Yes NoX
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Describer of history adaption of
2				Prevalence index worksneet:
3				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species x 2 =
		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
<u>1 Elymus trachycaulus</u>	65	Y	FACU	UPL species x 5 =
2.Elymus repens	20	Y	FACU	Column Totals: (A) (B)
3.Hordeum jubatum	10	N	FACW	
4.				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
7				3 - Prevalence Index is $≤3.0^1$
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plat aize:	95	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
۲				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5	20	= I otal Cov	er	Present? Yes No X
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			Redox	x Features	S				
(inches)	Color (moist)	<u>%</u> C	Color (moist) % Type ¹ Loc ²			Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100						loam		
4-12	10YR 3/1	90 10)YR	4/6	10	C	М	loam		
12-18	10YR 3/2	90 10	YR)	4/6	10	С	Μ	loam		
·										
17 0.0										
Type: C=Co Hydric Soil	oncentration, D=Depl	etion, RM=Red	uced N	latrix, CS	=Covered	d or Coate	d Sand Gi	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		o, anno	Sandy G	Hoved Ma	riv (S1)		1 cm Muck (AQ) (I BB 1)		
Histic Er	Histosol (A1) Sandy Gleyed Matrix (54)				Coast Brairio Bodoy (A16) (LRR I, J)					
Black Hi	istic (A3)			Strinned	Matrix (S) (6)		$\underline{\qquad} \text{Coast Plaine Redox (A16) (LRR r, G, f)}$		
<u> </u>	- Diack Filsuc (AS) Supped Matrix (S6)					High Plains Depressions (E16)				
Nyurogo Stratified	ind Lavors (A5) (LPR E)					(I BR H outside of MI RA 72 & 73)				
0.raunec		/ 		Denleter	d Matrix (F	=3)		Reduced Vertic (E18)		
Penleter	d Below Dark Surface	•) (Δ11)	x	Reday C	ank Surfa	0) ICE (E6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			Denleter	d Dark Su	rface (F7)		Very Shallow Dark Surface (TE12)		
Thick Da	Aucky Minoral (S1)) Darossia			Other (Explain in Remarks)		
	Aucky Milleral (31)				ing Donro	(10)	16)	³ Indicators of hydrophytic vegetation and		
2.5 CIII N	Nucky Pear of Pear (3						10)	[°] Indicators of hydrophytic vegetation and		
5 CM MU	icky Peat or Peat (Sa	3) (LRR F)			RA /2 & /	3 OT LRR	H)	wetland hydrology must be present, unless disturbed or problematic		
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):							Hydric Soil Present? Yes X No		
Remarks:										
	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	ne required: che	eck all t	that apply	()			Secondary Indicators (minimum of two required		
Surface	Water (A1)		Si	alt Crust	(B11)			Surface Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Invertebrates (B13)					Sparsely Vegetated Concave Surface (B8)		

- _ Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
- _ Oxidized Rhizospheres on Living Roots (C3)
 - (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

Field Observations:								
Surface Water Present?	Yes	NoX	Depth (inches):					
Water Table Present?	Yes	NoX	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes	No_	x
Describe Recorded Data (str	eam gaug	e, monitoring w	vell, aerial photos,	, previous inspec	tions), if available:			

Hydrogen Sulfide Odor (C1)

___ Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

___ Oxidized Rhizospheres on Living Roots (C3)

Remarks:

_ Saturation (A3)

____ Drift Deposits (B3)

Water Marks (B1)

____ Sediment Deposits (B2)

_ Algal Mat or Crust (B4)

Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

Iron Deposits (B5)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT	WARD	Sampling Date: 11/03/21					
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>17W</u>					
Investigator(s): KEVIN PLOOF	_ Section, Township, Range: _	16, 155,	82					
Landform (hillslope, terrace, etc.): basin	_ Local relief (concave, conve	k, none): <u>CON</u>	1cave					
Subregion (LRR): F Lat: 4	8.24722955 Long	g: -101.227	0503 Datum: NAD83					
Soil Map Unit Name: Heimdal-Wyard loams, 0-	3% slopes	NWI classific	cation: PEM1C					
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes No _X	(If no, explain in R	Remarks.)					
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed? Are "Norma	al Circumstances" p	present? Yes X No					
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally preserved by the second	roblematic? (If needed,	explain any answe	ers 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							

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	within a Wetland?	Yes_X No
Remarks: mostly dry in	1 the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2				(excluding FAC=). (A)	
3				Total Number of Dominant	
4				Species Across All Strata: (B)	
		= Total Cov	er	Percent of Dominant Species	
Sapling/Snrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B	\$)
1				Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3				OBL species x 1 =	
4				FACW species x 2 =	
5		Tatal Oa		FAC species x 3 =	
Herb Stratum (Plot size: ⁵)		= Total Cov	er	FACU species x 4 =	
<u>,</u> Spartina pectinata	20	Y	FACW	UPL species x 5 =	
_{2.} Typha angustifolia	55	Y	OBL	Column Totals: (A) (B))
3. Rumex crispus	10	N	FAC		
4.				Prevalence Index = B/A =	
5.				Hydrophytic Vegetation Indicators:	
6.				\underline{X} 1 - Rapid Test for Hydrophytic Vegetation	
7.				<u>X</u> 2 - Dominance Test is >50%	
8.				3 - Prevalence Index is ≤3.0 ¹	
9.				4 - Morphological Adaptations ¹ (Provide supporting	ıg
10.				Drohlematic Llydranbytic Vegetation ¹ (Evaluation)	
	85	= Total Cov	er		
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must	
1				be present, unless disturbed or problematic.	
2				Hydrophytic	
N D D U U U D D 15		= Total Cov	er	Vegetation Present? Yes X No	
% Bare Ground in Herb Stratum				NU	
Remarks:					

Profile Des	cription: (Describe	to the dep	th needed	to docur	nent the i	indicator	or confirr	n the absence o	of indicators.)	
Depth	Matrix			Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	<u>10YR 2/1</u>	100						<u>loam</u>		
4 - 8	10YR 3/1	95	10YR	6/8	5	С	М	loam		
8-16	10YR 4/2	95	10YR	6/8	5	С	М	SiL		
	·	·		·		·				
		·				·				
		·								
								. <u></u>		
					-					
¹ Type: C=C	Concentration D=Dep	letion RM:	=Reduced	Matrix CS	S=Covere	d or Coate	d Sand G	rains ² Loca	ation: PI =Pore Lining M=Matrix	
Hydric Soil	Indicators: (Applic	able to all	LRRs, unl	ess other	wise not	ed.)		Indicators 1	for Problematic Hydric Soils ³ :	
Histoso	l (A1)		·	Sandy (Gleved Ma	atrix (S4)		1 cm M	uck (A9) (LRR I, J)	
Histic E	pipedon (A2)			Sandy F	Redox (S5	5)		Coast F	Prairie Redox (A16) (LRR F, G, H)	
Black H	listic (A3)			_ Stripped	d Matrix (S	56)		Dark Su	urface (S7) (LRR G)	
Hydrog	en Sulfide (A4)			Loamy	Mucky Mir	neral (F1)		High Pl	ains Depressions (F16)	
Stratifie	d Layers (A5) (LRR F	=)		Loamy	Gleyed M	atrix (F2)		(LRI	R H outside of MLRA 72 & 73)	
1 cm M	uck (A9) (LRR F, G, I	H) - (A 4 4)	X	 Deplete 	d Matrix (F3)		Reduce	ed Vertic (F18)	
Depiete	ed Below Dark Sufface	e (ATT)		_ Redox I	Jark Suna d Dark Su	ace (F6) urfaco (E7)		Red Pa	and the surface (TE12)	
Sandy I	Mucky Mineral (S1)			_ Depiete Reday [u Dark Su Jenressin	inace (F7)		Very Si Other (I	Explain in Remarks)	
2.5 cm	Mucky Peat or Peat (S2) (L RR (G. H)	High Pla	ains Depressio	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm M	ucky Peat or Peat (S	B) (LRR F)	(MLRA 72 & 73 of LRR H)					wetland hydrology must be present,		
	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,			,	unless	disturbed or problematic.	
Restrictive	Layer (if present):									
Туре:										
Depth (ir	nches):							Hydric Soil	Present? Yes <u>X</u> No	
Remarks:										
HYDROLC	DGY									
Wetland Hy	drology Indicators:									
Primary Indi	icators (minimum of o	ne require	d; check all	I that appl	y)			<u>Seconda</u>	ry Indicators (minimum of two required)	
Surface	e Water (A1)		\$	Salt Crust	(B11)			Surfa	ace Soil Cracks (B6)	
High W	ater Table (A2)		/	Aquatic In	vertebrate	es (B13)		Spar	sely Vegetated Concave Surface (B8)	
Saturat	ion (A3)		ł	Hydrogen	Sulfide O	dor (C1)		Drair	nage Patterns (B10)	
Water N	Marks (B1)		[Dry-Seaso	on Water 1	Table (C2)		Oxid	ized Rhizospheres on Living Roots (C3)	
Sedime	ent Deposits (B2)		(Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wl	here tilled)	
Drift De	posits (B3)			(where I	not tilled)	1		Cray	fish Burrows (C8)	

Clayiisii Dullows (CO)

x	Saturation	Visible on	Aerial	Imagery	(C9))
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- X
 Geomorphic Position (D2)

 X
 FAC-Neutral Test (D5)
- - Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves	(B9)	Frost-Heave Hummocks (D7) (LRR F)
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 <u>X</u> No
Describe Recorded Data (st	tream gauge, monitoring well, aerial photos, previ	ous inspections), if available:
Remarks:		

Presence of Reduced Iron (C4)

Thin Muck Surface (C7)

____ Other (Explain in Remarks)

Algal Mat or Crust (B4)
Iron Deposits (B5)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/03/21						
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>16U</u>						
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: <u>16</u> , 155, 82						
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, convex, none): NONE Slope (%):						
Subregion (LRR): F Lat: <u>4</u>	8.2487676 Long: -101.225789 Datum: <u>NAD83</u>						
Soil Map Unit Name: Barnes loam, 3-6% slope	s NWI classification:N/A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.) Are Vegetation _N, Soil _N, or Hydrology _N significantly disturbed? Are "Normal Circumstances" present? Yes _X No							
Are Vegetation $_\mathrm{N}_$, Soil $_\mathrm{N}_$, or Hydrology $_\mathrm{N}_$ 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 NoX Hydric Soil Present? YesX No Wetland Hydrology Present? Yes NoX	Is the Sampled Area within a Wetland? Yes <u>No X</u>						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC		
2						
3				Total Number of Dominant		
4				Species Across All Strata: (B)		
		= Total Co	ver	Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)		
1				Provolonoo Indox workshooti		
2				Trevalence index worksneet:		
3				Nultiply by:		
4		· ·		OBL species x 1 =		
5				FACW species x 2 =		
		= Total Co	ver	FAC species x 3 =		
Herb Stratum (Plot size: <u>5</u>)				FACU species x 4 =		
1. <u>Elymus trachycaulus</u>	55	Y	FACU	UPL species x 5 =		
2. <u>Elymus repens</u>	25	Y	FACU	Column Totals: (A) (B)		
3. <u>Bromus inermis</u>	10	N	UPL			
4. <u>Cirsium arvense</u>	5	N	FACU	Prevalence Index = B/A =		
5.				Hydrophytic Vegetation Indicators:		
6.				1 - Rapid Test for Hydrophytic Vegetation		
7	-			2 - Dominance Test is >50%		
8				3 - Prevalence Index is ≤3.0 ¹		
0				4 - Morphological Adaptations ¹ (Provide supporting		
10				data in Remarks or on a separate sheet)		
10	05	- Total Ca		Problematic Hydrophytic Vegetation (Explain)		
Woody Vine Stratum (Plot size:)	_ 95		ver	¹ Indicators of hydric soil and wetland hydrology must		
1				be present, unless disturbed or problematic.		
2				Hydrophytic		
<u></u>	95	= Total Co	vor	Vegetation		
% Bare Ground in Herb Stratum 5				Present? Yes No X		
Remarks:						

Profile Desc	ription: (Describe f	to the dept	h needed	to docun	nent the i	ndicator	or confirm	m the absence of indicators.)		
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100								
4-12	10YR 3/1	100						loam		
12-18	10YR 4/3	90	10YR	4/6	10	С	М	loam		
					·					
1								2		
Type: C=Co	oncentration, D=Depl	letion, RM=l	Reduced I	Aatrix, CS	S=Covered	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Histosol				Sandy (triv (S4)		1 cm Muck (A9) (I BB 1)		
Histic Er	pipedon (A2)			Sandy F	Redox (S5)		Coast Prairie Redox (A16) (LRR F. G. H)		
Black Hi	stic (A3)			Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hvdroge	en Sulfide (A4)			Loamy Mucky Mineral (F1)				High Plains Depressions (F16)		
Stratified	d Lavers (A5) (LRR F	•)		Loamy	Gleved Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F. G. H	/)		Deplete	d Matrix (I	=3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)		Redox [Dark Surfa	ce (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)	- ()		Deplete	d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	Aucky Mineral (S1)			Redox [Denressio	nace (F8)		Other (Explain in Remarks)		
2.5 cm M	Aucky Peat or Peat (S2) (I RR G	H)	High Pla	ains Denre	essions (F	16)	³ Indicators of hydrophytic vegetation and		
<u> </u>	icky Peat or Peat (S3		,,	(MI RA 72 & 73 of L RR H)				wetland hydrology must be present		
0 0111110)(ERRT)					,	unless disturbed or problematic.		
Restrictive	Layer (if present):									
Туре:										
Depth (inches):								Hydric Soil Present? Yes No _X		
Remarks:										
HYDROLO	GY									
Wetland Hv	drology Indicators:									
Primary India	pators (minimum of o	ne required	· check all	that apply	(V)			Secondary Indicators (minimum of two required)		

Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B	(3) Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table	(C2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres of	n Living Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Irc	n (C4) Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remark	(s) FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previou	is inspections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT (City/County: <u>MINOT WARD</u> Sampling Date: <u>11/03/21</u>						
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point:16W						
Investigator(s): KEVIN PLOOF	Section, Township, Range: 16, 155, 82						
Landform (hillslope, terrace, etc.): basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>						
Subregion (LRR): F Lat:48	8.24863999 Long: -101.2259238 Datum: <u>NAD83</u>						
Soil Map Unit Name: Barnes loam, 3 to 6%	NWI classification: PEM1A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No x (If no, explain in Remarks.) Are Vegetation N, Soil N, or Hydrology N ignificantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation N, Soil N, or Hydrology N inturally 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 Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: mostly dry in the preceding Yes X	Is the Sampled Area within a Wetland? Yes X No weeks						

Iree Stratum (Plot size:) % Cover Species? Status Number of Dominant Species (excluding FAC>): 2 (A) 3.		Absolute	Dominant	Indicator	Dominance Test worksheet:		
1.	Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species		
2	1		·		That Are OBL, FACW, or FAC	(A)	
3.	2		·			(A)	
4.	3		<u> </u>		Total Number of Dominant	<i>(</i>)	
Saping/Shrub Stratum (Plot size:) = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) 1.	4		·		Species Across All Strata:	(B)	
Saping/Strub Stratum (Plot size:)			= Total Cove	er	Percent of Dominant Species		
1.	Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)	
2.	1		·		Prevalence Index worksheet:		
3.	2		·		Total % Cover of: Multiply by:		
4.	3		·		OBL species x 1 =	_	
5.	4		·		FACW species x 2 =		
Herb Stratum (Plot size: 5)	5	·			FAC species x 3 =	_	
1. Spartina pectinata 20 Y FACW UPL species x 5 =	Herb Stratum (Plot size: 5)		= Total Cove	er	FACU species x 4 =	_	
2. Typha angustifolia 55 Y OBL Column Totals: (A) (B) 3. Rumex crispus 10 N FAC Prevalence Index = B/A =	1 Spartina pectinata	20	Y	FACW	UPL species x 5 =	_	
3. Rumex crispus 10 N FAC 4.	2. Typha angustifolia	55	Y	OBL	Column Totals: (A)	(B)	
4.	3. Rumex crispus	10	N	FAC	、,	. ,	
5.	4		·		Prevalence Index = B/A =	_	
6.	5		·		Hydrophytic Vegetation Indicators:		
X 2 - Dominance Test is >50% 8. 3 - Prevalence Index is <3.0 ¹ 9. 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 10. 85 Woody Vine Stratum (Plot size:) 85 1. 9 2. 9 Woody Vine Stratum (Plot size:) 85 1. 9 2. 9 2. 9 2. 9 3. 9 3. 9 1. 9 2. 9 2. 9 3. 9 3. 9 1. 9 2. 9 3. 9 3. 9 3. 9 3. 9 4. Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 1. 11 1. 11 1. 12 2. 10 3. 9 1. 10 <	6		·		\underline{X} 1 - Rapid Test for Hydrophytic Vegetation		
1.	7		·		<u>X</u> 2 - Dominance Test is >50%		
9.	8				3 - Prevalence Index is ≤3.0 ¹		
0.	a				4 - Morphological Adaptations ¹ (Provide supp	oorting	
Woody Vine Stratum (Plot size:) 85 = Total Cover Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1.	10		·		data in Remarks or on a separate sheet)		
Woody Vine Stratum (Plot size:) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1 Hydrophytic Vegetation Present? Yes No % Bare Ground in Herb Stratum15	····	85	= Total Cove	or	Problematic Hydrophytic Vegetation (Explain	n)	
1. be present, unless disturbed or problematic. 2.	Woody Vine Stratum (Plot size:)			51	¹ Indicators of hydric soil and wetland hydrology m	nust	
2 = Total Cover Hydrophytic Vegetation Present? Yes X No	1				be present, unless disturbed or problematic.		
% Bare Ground in Herb Stratum 15 = Total Cover Vegetation Present? Yes X No	2				Hydrophytic		
% Bare Ground in Herb Stratum <u>15</u> Present? Yes <u>17</u> No					Vegetation		
	% Bare Ground in Herb Stratum 15 Present? Yes No						
Remarks:	Remarks:						

Profile Des	cription: (Describe	to the depr	h needed	to docun	nent the i	indicator	or confirm	n the absence of	indicators.)	
Depth	Matrix			Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	<u>10YR 2/1</u>	100						<u>loam</u>		
4 - 8	10YR 3/1	95	10YR	6/8	5	С	М	loam		
8-16	10YR 4/2	95	10YR	6/8	5	С	М	SiL		
8-16 10YR 4/2 95 10YR 6/8 5 C M SiL										
-							· · · · · · · · · · · · · · · · · · ·	unless di	sturbed or problematic.	
Restrictive	Layer (if present):									
Type:									37	
Depth (ir	nches):							Hydric Soil Pr	resent? Yes <u>×</u> No	
Remarks:	DGY									
Wetland Hy	drology Indicators:									
Primary Indi	icators (minimum of o	ne requirec	; check al	I that apply	y)			Secondary	Indicators (minimum of two required)	
Surface	e Water (A1)		;	Salt Crust	(B11)			Surfac	e Soil Cracks (B6)	
High W	High Water Table (A2) Aquatic Invertebrates (B13)							Sparsely Vegetated Concave Surface (B8)		
Saturation (A3) Hydrogen Sulfide Odor (C1)							Drainage Patterns (B10)			
Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizo							ed Rhizospheres on Living Roots (C3)			
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled)							ere tilled)			
Drift De	Drift Deposits (B3) (where not tilled) Cravfish Burrows (C8)									
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) X Saturation Visible on Aerial Imagery (C9)								ation Visible on Aerial Imagery (C9)		
Iron De	posits (B5)			Thin Muck	Surface ((C7)		X Geom	orphic Position (D2)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)							X FAC-Neutral Test (D5)			

____ Water-Stained Leaves (B9) Field Observations: Yes _____ No ____ Depth (inches): _____ Surface Water Present? Yes _____ No _X__ Depth (inches): _____ Water Table Present? Yes _____ No _X__ Depth (inches): _____ Saturation Present? Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date:1/03/21						
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>14U</u>						
Investigator(s): KEVIN PLOOF	Section, Township, Range: <u>16,155,82</u>						
Landform (hillslope, terrace, etc.): <u>basin</u>	Local relief (concave, convex, none):CONCAVE Slope (%):2						
Subregion (LRR): F Lat: _	48.24734885 Long: -101.2256594 Datum: NAD83						
Soil Map Unit Name: Barnes loam, 3 to 6%	NWI classification: PEM1A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)							
Are Vegetation <u>Y</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} 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 Let the Sampled Area							
Hydric Soil Present? Yes X No	within a Wetland? Yes X No						
Wetland Hydrology Present? Yes X No	No						
Remarks: mostly dry in the preceding weeks							

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Deminent Crossies
1				That Are OBL_EACW_or EAC
··			·	(excluding FAC-): (A)
2		·	·	(china and g i i i a ').
3		·		Total Number of Dominant
4		·		Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL_EACW or EAC [•] (A/B)
1				
2				Prevalence Index worksheet:
2		·	· <u> </u>	Total % Cover of: Multiply by:
3		·	·	OBL species x 1 =
4				
5				FACW species x 2 =
_		= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
_{1.} Brassica rapa	55	Y	FACU	UPL species x 5 =
2				Column Totals (A) (B)
2		·	·	
			·	Prevalence Index = B/A =
4		· - <u></u>	·	Hydrophytic Vegetation Indicators:
5		·	·	X 1 - Rapid Test for Hydrophytic Vegetation
6		·	·	X 2 - Dominance Test is >50%
7			· <u> </u>	$3 - Prevalence Index is \leq 30^{1}$
8				4 Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Co	ver	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2				Hydrophytic
		- Total Co		Vegetation
% Bare Ground in Herb Stratum 10			vei	Present? Yes X No
Remarks:				
romano.				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			Redo	x Feature	es1		_		
<u>(inches)</u>	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture	Remarks	
	<u>10YR 2/1</u>	100						<u>loam</u>		
4-10	10YR 3/1	100						loam		
10-16	10YR 4/3	95	10YR	6/8	5	С	М	SiL		
		· ·			·		<u> </u>			
		· ·						·		
					·					
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced	Matrix, CS	S=Covere	d or Coate	ed Sand Gr	ains. ² Location: P	L=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators: (Applic	able to all	_RRs, unl	ess other	wise not	ed.)		Indicators for Prob	plematic Hydric Soils ³ :	
Histosol	(A1)			_ Sandy C	Sleyed Ma	atrix (S4)		1 cm Muck (A9)) (LRR I, J)	
Histic Ep	oipedon (A2)		_	_ Sandy F	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)			Stripped	Matrix (S	S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)			_ Loamy I	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR I	-) u)		_ Loamy (JIEYEO IVI d Matrix (atrix (F2)		(LRR H OUTSIDE OF MLRA /2 & /3) Reduced Vertic (E18)		
Depleted Below Dark Surface (A11) Depleted Matrix (F3)				Red Parent Material (TF2)						
Thick Dark Surface (A12) Depleted Dark Surface (F7)					Verv Shallow D	ark Surface (TF12)				
Sandy Mucky Mineral (S1) Redox Depressions (F8)					Other (Explain i	in Remarks)				
2.5 cm M	lucky Peat or Peat (S2) (LRR G	i, H)	High Pla	ains Depr	essions (F	16)	³ Indicators of hydro	phytic vegetation and	
5 cm Mu	cky Peat or Peat (S	3) (LRR F)		(ML	RA 72 &	73 of LRR	R H)	wetland hydrolo	gy must be present,	
					unless disturbe	d or problematic.				
Restrictive L	_ayer (if present):									
Туре:										
Depth (inc	ches):							Hydric Soil Present	? Yes <u>No X</u>	
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
Primary Indic	ators (minimum of o	ne required	; check al	that apply	y)			Secondary Indica	tors (minimum of two required)	
Surface	Water (A1)		Salt Crust (B11)				Surface Soil Cracks (B6)			
High Wa	ter Table (A2)		Aquatic Invertebrates (B13)				Sparsely Vegetated Concave Surface (B8)			
Saturatio	Saturation (A3) Hydrogen Sulfide Odor (C1)				Drainage Pa	tterns (B10)				
Water M	arks (B1)		[Dry-Seaso	n Water	Table (C2)		Oxidized Rhi	zospheres on Living Roots (C3)	
Sedimer	nt Deposits (B2)		(Dxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) (where till	ed)	

- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- ____ FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (LRR F)

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	No <u>X</u>
Describe Recorded Data (stre	am gauge,	monitoring	y well, aerial photos, previous inspe-	ctions), if available:		

(where not tilled)

Thin Muck Surface (C7)

____ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Remarks:

____ Drift Deposits (B3)

____ Iron Deposits (B5)

____ Algal Mat or Crust (B4)

____ Water-Stained Leaves (B9)

____ Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: MINOT WARD Sampling Date: 11/03/21
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>14</u> W
Investigator(s): KEVIN_PLOOF	_ Section, Township, Range: <u>16,155,82</u>
Landform (hillslope, terrace, etc.): basin	_ Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>
Subregion (LRR): F Lat: _4	8.24725746 Long: -101.2255217 Datum: NAD83
Soil Map Unit Name: Barnes loam, 3 to 6%	NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes No _X (If no, explain in Remarks.)
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significantl	ly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sempled Area
Hydric Soil Present? Yes X No	- within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	

Remarks: mostly dry in the preceding weeks

	Absolute	Dominan	t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2.				(excluding FAC-): (A)
3				Total Number of Dominant
4			·	Species Across All Strata: 2 (B)
т		- Total Ca		
Sapling/Shrub Stratum (Plot size:)		- 10tai C0	vei	Percent of Dominant Species 100 (A/B)
1				
2			·	Prevalence Index worksheet:
2		·	·	Total % Cover of: Multiply by:
S				OBL species x 1 =
4			·	FACW species x 2 =
5			·	EAC species $x_3 =$
Harb Stratum (Plat aize: 5		= Total Co	ver	
	25	Y	FACW	
Typha angustifolia			OBT.	$OPL species \underline{\qquad} x \ 5 = \underline{\qquad} (a)$
2. <u>19911a aliguserioria</u>				Column Totals: (A) (B)
3			·	Prevalence Index = B/A =
4			. <u> </u>	Hydrophytic Vegetation Indicators:
5				X 1 Danid Test for Lludronbutio Vegetation
6				X 0. Deminence Test in 50%
7				
8.				3 - Prevalence Index is ≤3.0
9.				4 - Morphological Adaptations' (Provide supporting
10				Distribution in Remarks of on a separate sheet)
	90	= Total Co	ver	
Woody Vine Stratum (Plot size:)		- 10181 00	VCI	¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2.			·	Hydrophytic
	= Total Cover		ver	Vegetation
% Bare Ground in Herb Stratum10			V CI	Present? Yes No
Remarks:				1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	h Matrix Redox Features							
(inches)	Color (moist)	<u>%</u> C	Color (moist)	%	Type'	Loc	Texture Rem	narks
	<u>10YR 2/1</u>	100					<u>loam</u>	
4-10	10YR 3/1	95 1	LOYR 6/8	5	С	М	loam	
10-16	10YR 4/2	95 1	LOYR 6/8	5	С	М	SiL	
·	,		,		·		- <u></u> <u></u>	
		· ·			·		·	
		·				. <u> </u>		
		·						
					·			
		lation DM-Dod	Lucad Matrix CC		d or Coato	d Cond C		
Hydric Soil	ndicators: (Applic	able to all I RR	s unless other	wise not		u Sanu G	Indicators for Problematic H	vdric Soils ³ .
Histosol	(A1)		Sandy (Hoved Mr	(S4)		1 cm Muck (AQ) (I BB L I)	
Histosol (A1) Sandy Gle				Redox (S5	5)		Coast Prairie Redox (A16)) (IRREGH)
Black Hi	Black Histic (A3) Stripped Matrix (S6)				Dark Surface (S7) (LRR (G)		
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)					High Plains Depressions ((F16)		
Stratified Layers (A5) (LRR F)			Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of ML	.RA 72 & 73)
1 cm Muck (A9) (LRR F, G, H)			Deplete	d Matrix (F3)		Reduced Vertic (F18)	
Depleted Below Dark Surface (A11)			X Redox [Dark Surfa	ace (F6)		Red Parent Material (TF2))
Thick Dark Surface (A12)			Deplete	d Dark Su	ırface (F7)		Very Shallow Dark Surface	e (TF12)
Sandy M	lucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Explain in Remarks	S)
2.5 cm N	lucky Peat or Peat (S2) (LRR G, H)	High Pla	ains Depre	essions (F	16)	³ Indicators of hydrophytic vege	etation and
5 cm Mu	cky Peat or Peat (S3	3) (LRR F)	(MLRA 72 & 73 of LRR H)				wetland hydrology must be	e present,
De stal stil en l							unless disturbed or proble	matic.
	ayer (if present):							
Type:								37
Depth (inches):							<u> </u>	
Remarks:								
	GV							

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2) X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes No X Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ctions), if available:
Remarks:	
Remarks:	ctions), if available:

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Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/03/21					
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>15U</u>					
Investigator(s): KEVIN PLOOF	Section, Township, Range: <u>16,155,82</u>					
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, convex, none): NONE Slope (%):					
Subregion (LRR): F Lat: 48	8.24819469 Long: -101.2243968 Datum: NAD83					
Soil Map Unit Name: Barnes loam, 3-6% slope	S NWI classification:N/A					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation _N _, Soil _N _, or Hydrology _N _ significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation _N _, Soil _N _, or Hydrology _N _ naturally problematic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	Is the Sampled Area within a Wetland? Yes <u>No X</u>					

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:						
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species						
1				That Are OBL, FACW, or FAC						
2										
3		·		Total Number of Dominant						
4				Species Across All Strata: (B)						
		= Total Co	ver	Percent of Dominant Species						
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)						
1				Provalence Index worksheet:						
2				Total % Cover of:						
3										
4		·								
5				FAC vv species x 2 =						
E		= Total Co	ver	FAC species x 3 =						
Herb Stratum (Plot size: 5)			= 1 4 1 1	FACU species x 4 =						
<u>1. Elymus trachycaulus</u>	55	<u> </u>	FACU	UPL species x 5 =						
2. <u>Elymus repens</u>	25	<u> </u>	FACU	Column Totals: (A) (B)						
3. <u>Bromus inermis</u>	10	N	UPL	Drovolonce Index - B/A -						
4. <u>Cirsium arvense</u>	5	N	FACU							
5				Hydrophytic Vegetation Indicators:						
6		· ·		1 - Rapid Test for Hydrophytic Vegetation						
7				2 - Dominance Test is >50%						
8				3 - Prevalence Index is ≤3.0'						
9				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)						
10				Problematic Hydrophytic Vegetation ¹ (Explain)						
	95	= Total Co	ver							
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must						
1				be present, unless disturbed of problematic.						
2				Hydrophytic						
% Bare Ground in Herb Stratum5	95 = Total Cover		ver	Vegetation Present? Yes No X						
Remarks:										
Profile Desc	cription: (Describe	to the dep	th needed	to docun	nent the i	ndicator	or confirm	n the absence of indicators.)		
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Depth	Matrix Redox Features									
(inches)	Color (moist)	%	Color (noist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100						<u>CL</u>		
4-12	10YR 3/1	100						loam		
12-18	10YR 4/3	90	10YR	4/6	10	С	М	loam		
								·		
		·								
$\frac{1}{1}$ Type: C=C		letion RM=	Reduced	Matrix CS	S=Covered	l or Coate	d Sand G	rains ² l ocation: Pl =Pore Lining M=Matrix		
Hydric Soil	Indicators: (Application)	able to all	LRRs, unl	ess other	wise note	∋d.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy C	Gleyed Ma	trix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic E	pipedon (A2)		Sandy Redox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)		
Black H	istic (A3)			Stripped	d Matrix (S	6)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratifie	d Layers (A5) (LRR F	=)	Loamy Gleyed Matrix (F2)					(LRR H outside of MLRA 72 & 73)		
1 cm Mi	uck (A9) (LRR F, G, H	H)	Depleted Matrix (F3)					Reduced Vertic (F18)		
Deplete	d Below Dark Surface	e (A11)	Redox Dark Surface (F6)					Red Parent Material (TF2)		
Thick Da	ark Surface (A12)	· · ·		Deplete	d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)		
Sandy N	Aucky Mineral (S1)		Redox Depressions (F8)					Other (Explain in Remarks)		
2.5 cm l	Mucky Peat or Peat (S2) (LRR (High Plains Depressions (F16)					³ Indicators of hydrophytic vegetation and		
5 cm Mi	ucky Peat or Peat (S3	B) (LRR F)	(MLRA 72 & 73 of LRR H)					wetland hydrology must be present.		
	,,,,,,,, .		(,	unless disturbed or problematic.		
Restrictive	Layer (if present):									
Туре:										
Depth (in	Depth (inches):							Hydric Soil Present? Yes No _X		
Remarks:										
HYDROLO	HYDROLOGY									
Wetland Hy	drology Indicators:									

Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
Sparsely Vegetated Concave Surface (B8)
Drainage Patterns (B10)
Oxidized Rhizospheres on Living Roots (C3)
Roots (C3) (where tilled)
Crayfish Burrows (C8)
Saturation Visible on Aerial Imagery (C9)
Geomorphic Position (D2)
FAC-Neutral Test (D5)
Frost-Heave Hummocks (D7) (LRR F)
Wetland Hydrology Present? Yes No _X
tions), if available:

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>15W</u>
Investigator(s): KEVIN PLOOF	_ Section, Township, Range: <u>16,155,82</u>
Landform (hillslope, terrace, etc.): basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>
Subregion (LRR): F Lat:	48.24809963 Long: -101.2241088 Datum: <u>NAD83</u>
Soil Map Unit Name: Barnes loam, 3 to 6%	NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X (If no, explain in Remarks.)
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significant	tly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally (problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	
Hydric Soil Present? Yes X No	- Is the Sampled Area
Wetland Hydrology Present? Yes X No	NO

Remarks: mostly dry in the preceding weeks

	Absolute	Dominan	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC 2	J
2			·	(excluding FAC-):	(A)
3				Total Number of Dominant	
4.				Species Across All Strata:	(B)
		= Total Co	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:1	.00 (A/B)
1					
2			·	Prevalence Index worksheet:	
3				Total % Cover of: Multip	<u>oly by:</u>
4.				OBL species x 1 =	
5			·	FACW species x 2 =	
···		= Total Co	ver	FAC species x 3 =	
Herb Stratum (Plot size: 5)		rotar oo	VCI	FACU species x 4 =	
_{1.} Hordeum jubatum	25	Y	FACW	UPL species x 5 =	
_{2.} Phalaris arundinacea	65	Y	FACW	Column Totals: (A)	(B)
3.	_				
4.				Prevalence Index = B/A =	
5	_			Hydrophytic Vegetation Indicators:	
6			·	X 1 - Rapid Test for Hydrophytic Vege	etation
7			·	X 2 - Dominance Test is >50%	
8			·	$_$ 3 - Prevalence Index is $\leq 3.0^1$	
0			·	4 - Morphological Adaptations ¹ (Pro	vide supporting
3			·	data in Remarks or on a separat	e sheet)
10			·	Problematic Hydrophytic Vegetation	า ¹ (Explain)
Woody Vine Stratum (Plot size ⁻)	90	= Total Co	ver	¹ Indicators of hydric soil and wetland hydric	drology must
1				be present, unless disturbed or problem	atic.
2			·	Hudronbutio	
2		- Total Ca		Vegetation	
% Bare Ground in Herb Stratum 10			101	Present? Yes X No	
Remarks:				1	

Profile Des	cription: (Describe	to the dept	th needed	to docun	nent the	indicator	or confirr	n the absence of in	dicators.)	
Depth	$\frac{\text{Matrix}}{\text{Color}(\text{moist})} = \frac{\text{Redox Features}}{\sqrt{2}}$							_			
(inches)	Color	(moist)	%	Color (moist) % Type' Loc ²				Loc	Texture	Remarks	
0-4	<u>10YR</u>	2/1	100						<u>loam</u>		
4 - 8	10YR	3/1	95	10YR	6/8	5	С	М	loam		
8-16	10YR	4/2	95	10YR	6/8	5	С	М	SiL		
			·								
			·			·					
¹ Type: C=C	oncentratio	on, D=Dep	letion, RM=	Reduced	Matrix, CS	S=Covere	d or Coate	d Sand G	rains. ² Location	: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators	: (Applic	able to all	LRRs, unl	ess other	wise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histoso	l (A1)			_	Sandy G	Sleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic E	pipedon (A	2)			Sandy F	Redox (SS	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black H	istic (A3)				Stripped	Matrix (S	56)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (-\	—	_ Loamy I	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratifie	α Layers (A uck (Δ9) (I	ND (LKK F	-) HI)	x	Loamy C	oleyed IVI d Matrix (atrix (FZ) F3)		(LRR H OUTSIde of MLRA 72 & 73) Reduced Vertic (E18)		
Deplete	d Below Da	ark Surface	e (A11)		Redox [Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick D	ark Surface	e (A12)	• ()		Deplete	d Dark Su	urface (F7))	Very Shallow Dark Surface (TF12)		
Sandy M	Mucky Mine	eral (S1)			Redox [Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm	Mucky Pea	t or Peat (S2) (LRR G	S, H)	High Pla	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm M	ucky Peat o	or Peat (S3	3) (LRR F)	(MLRA 72 & 73 of LRR H)					wetland hyd	rology must be present,	
									unless distu	irbed or problematic.	
Restrictive	Layer (if p	resent):									
Type:										77	
Depth (in	iches):								Hydric Soil Pres	sent? Yes <u>×</u> No	
Remarks:											
HYDROLO	GY										
Wetland Hy	drology In	dicators:									
Primary Indi	cators (min	nimum of o	ne required	l; check all	that apply	y)			Secondary Inc	dicators (minimum of two required)	
Surface Motor (A1)							Surface	Call Creater (DC)			

<u>·····································</u>					
Surface Water (A1)		_	Salt Crust (B11)		Surface Soil Cracks (B6)
High Water Table (A2)		_	Aquatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		_	Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)
Water Marks (B1)		_	Dry-Season Water Table (C2)		Oxidized Rhizospheres on Living Roots (C3
Sediment Deposits (B2)	_	Oxidized Rhizospheres on Living	Roots (C3)	(where tilled)
Drift Deposits (B3)			(where not tilled)		Crayfish Burrows (C8)
Algal Mat or Crust (B4)		_	Presence of Reduced Iron (C4)		X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		_	Thin Muck Surface (C7)		X Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7) _	Other (Explain in Remarks)		X FAC-Neutral Test (D5)
Water-Stained Leaves	(B9)				Frost-Heave Hummocks (D7) (LRR F)
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 <u>X</u> No
Describe Recorded Data (s	tream gauge, n	nonitorin	ng well, aerial photos, previous inspe	ctions), if ava	ailable:
Remarks:					
Remarks:					

Project/Site: <u>PORT OF ND - CRISI GRANT</u>	City/County	MINOT	WARD	Sampling Date:	11/03/21
Applicant/Owner: <u>PORT OF ND</u>			State: ND	Sampling Point:	15W-2
Investigator(s): <u>KEVIN</u> PLOOF	Section, To	wnship, Range: _	16, 155	, 82	
Landform (hillslope, terrace, etc.): edge of basin	Local relief	(concave, conve	ex, none): <u>CO</u>	nvex Slo	ope (%): <u>0−2</u>
Subregion (LRR): F Lat	<u>48.24815</u>	5326 Lon	g: <u>-101.2</u>	246298 Datu	_{im:} NAD83
Soil Map Unit Name: <u>Heimdal-Wyard loams</u> ,	0-3% slop	pes	NWI class	sification: N/A	
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	No X	(If no, explain i	n Remarks.)	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed?	Are "Norm	al Circumstance	s" present? Yes <u>}</u>	K No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natura	lly problematic?	(If needed	, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	wing sampling	g point locat	ions, transed	cts, important fe	eatures, etc.
Hydrophytic Vegetation Present? Yes No	X	a Compled Area			
Hydric Soil Present? Yes No	X Is th	e Sampled Area in a Wetland?	l Vos	X No	
Wetland Hydrology Present? Yes No	<u>X</u>			140	-

Remarks: mostly dry in the preceding weeks

	Abaaluta	Dominant	Indiaator	Dominance Test workshoot		
Trop Stratum (Plot size:		Species?	Status	Dominance Test worksheet:		
	<u>/0 COver</u>	opecies:	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC	2	(•)
2				(excluding FAC-):		(A)
3.				Total Number of Dominant	~	
4				Species Across All Strata:	2	(B)
		- Total Cov	~~			
Sanling/Shrub Stratum (Plot size:			er	Percent of Dominant Species	100	
<u></u>				I That Are OBL, FACW, or FAC:		(A/B)
l		·		Prevalence Index worksheet:		
2		·		Total % Cover of:	Multiply by:	
3		·			<u> </u>	_
4						_
5.				FACW species >	< 2 =	
		= Total Cove	er	FAC species	< 3 =	_
Herb Stratum (Plot size: 5)				FACU species	(4 =	_
_{1.} Typha angustifolia	65	Y	OBL	UPL species	< 5 =	_
, Spartina pectinata	25	Y	FACW	Column Totals	A)	(B)
2					···	_ (2)
S				Prevalence Index = B/A =	=	_
4				Hydrophytic Vegetation Indic	ators:	
5		·		X 1 - Rapid Test for Hydrophy	ytic Vegetation	
6				X 2 - Dominance Test is >50	%	
7		<u> </u>		3 - Prevalence Index is ≤3.	0 ¹	
8		<u> </u>		4 - Morphological Adaptatio	ons ¹ (Provide sup	nortina
9		<u> </u>		data in Remarks or on a	separate sheet)	porting
10				Problematic Hydrophytic V	egetation ¹ (Expla	in)
	90	= Total Cove	er		0 (1	,
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and we	tland hydrology r	nust
1				be present, unless disturbed or	problematic.	
2.				Hydrophytic		
		= Total Cove	⊃r	Vegetation		
% Bare Ground in Herb Stratum10		10101 0000		Present? Yes	No	
Remarks:				1		

Profile Descrip	otion: (Describe t	to the depth n	needed to docu	ment the	indicator	or confirn	m the absence of indicators.)		
Depth	Matrix		Red	ox Feature	S		_		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture Remarks		
<u> </u>	<u>0YR 2/1</u>	100					<u>loam</u>		
4-10 10	0YR 3/1	95 5	R 4/6	5	С	М			
10-16 1	10YR 3/1	95 5	R 4/6	5	С	М	loam		
							·		
							·		
								—	
						·			
¹ Type: C=Conc	centration, D=Depl	etion, RM=Re	duced Matrix, C	S=Covere	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Ind	licators: (Applica	able to all LRF	Rs, unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol (A	.1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Epipe	edon (A2)		Sandy	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Histic	c (A3)		Strippe	d Matrix (S	36)		Dark Surface (S7) (LRR G)		
Hydrogen S	Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified La	ayers (A5) (LRR F	·)	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Muck	(A9) (LRR F, G, H	1)	Deplete	ed Matrix (F3)		Reduced Vertic (F18)		
Depleted B	elow Dark Surface) (A11)	<u> </u>	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Dark	Surface (A12)		Deplete	ed Dark Su	urface (F7))	Very Shallow Dark Surface (TF12)		
Sandy Muc	ky Mineral (S1)		Redox	Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm Muc	cky Peat or Peat (S	32) (LRR G, H	I) High P	lains Depre	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mucky	y Peat or Peat (S3	3) (LRR F)	(MI	LRA 72 &	73 of LRR	: H)	wetland hydrology must be present,		
Destrictive Lev	(if procent)						unless disturbed or problematic.		
	<i>fer (il present).</i>								
Type.			_				Hydric Soil Present? Ves X No		
Deptil (inche									
Remarks.									
HYDROLOG	Y								
Wetland Hydro	ology Indicators:								
Primary Indicate	Primary Indicators (minimum of one required: check all that apply)						Secondary Indicators (minimum of two require	ed)	
Surface Wa	ater (A1)		Salt Crus	t (B11)			Surface Soil Cracks (B6)		
High Water	r Table (A2)		Aquatic Invertebrates (B13)				Sparsely Vegetated Concave Surface (B	8)	

Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C
Sediment Deposits (B2	.)	Oxidized Rhizospheres on Living	Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7)	Other (Explain in Remarks)	X FAC-Neutral Test (D5)
Water-Stained Leaves	(B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present?	Yes No	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 (si	tream gauge, monito	oring well, aerial photos, previous inspec	ctions), if available:
Remarks:			

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/03/21							
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>8U</u>							
Investigator(s): KEVIN PLOOF	Section, Township, Range: 16 , 155 , 82							
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>							
Subregion (LRR): F Lat: 48	8.24694265 Long: -101.2234404 Datum: NAD83							
Soil Map Unit Name: Barnes loam, 3-6% slope	S NWI classification: <u>N/A</u>							
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No \underline{X} (If no, explain in Remarks.)							
Are Vegetation $\underline{Y}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significantly	/ disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally pr	oblematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing	SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	Is the Sampled Area within a Wetland? Yes NoX							
Remarks: mostly dry in the preceding	weeks							

	Absolute	Dominan	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1			. <u> </u>	That Are OBL, FACW, or FAC
2				(excluding FAC-):
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
		= Total Co	ver	Demonst of Deminent Creation
Sapling/Shrub Stratum (Plot size:)			VCI	That Are OBL_EACW_or EAC [.] (A/B)
1.				
2.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
0				OBL species x 1 =
+			·	FACW species x 2 =
o			·	FAC species x 3 =
Herb Stratum (Plot size: 5)		= 10tal Co	ver	FACU species x 4 =
1 Brassica rapa	55	Y	FACU	$\frac{1}{1}$
2				Column Totals: (A) (B)
2			·	
3			·	Prevalence Index = B/A =
4			·	Hydrophytic Vegetation Indicators:
5		. .		1 - Rapid Test for Hydrophytic Vegetation
6			·	2 - Dominance Test is >50%
7			·	3 - Prevalence Index is < 3.01
8			·	4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10			·	Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Co	ver	
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1			·	
2			·	Hydrophytic
% Bare Ground in Herb Stratum5	55	= Total Co	ver	Vegetation Present? Yes <u>No X</u>
Remarks:				1

Profile Desc	ription: (Describe	to the dep	th needed	to docur	nent the i	ndicator	or confirn	n the absence of indicators.)		
Depth	Matrix			Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100						<u>_CL</u>		
4-10	10YR 3/1	100						loam		
10-18	10YR 4/3	90	10YR	4/6	10	С	M	loam		
		·								
		·								
		·								
		·			. .					
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced	Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Application)	able to all	LRRs, unl	ess othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)			_ Sandy (Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)			_ Sandy F	Redox (S5	i)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	Black Histic (A3) Stripped Matrix (S6)		Dark Surface (S7) (LRR G)							
Hydroge	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1)			High Plains Depressions (F16)						
Stratified	Layers (A5) (LRR F	=)		Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, I	H)	_	_ Deplete	d Matrix (I	F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)		_ Redox I	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			_ Deplete	d Dark Su	Inface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		<u> </u>	_ Redox I	Jepressio	ns (F8)	10)	Other (Explain in Remarks)		
2.5 cm N	Aucky Peat or Peat (S2) (LRR (э́, Н)	_ High Pla	ains Depre	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (St	3) (LRR F)		(ML	RA /2 & /	/3 OF LRR	H)	wetland hydrology must be present, unless disturbed or problematic.		
Restrictive I	Layer (if present):									
Туре:										
Depth (ind	ches):							Hydric Soil Present? Yes No	<u>x</u>	
Remarks:										
	GY									
Wetland Hyd	drology Indicators:									
Primary India	cators (minimum of o	ne required	l; check all	that appl	y)			Secondary Indicators (minimum of two reg	uired)	
Surface	Water (A1)		9	Salt Crust	(B11)			Surface Soil Cracks (B6)		
High Wa	ter Table (A2)			Aquatic In	vertebrate	s (B13)		Sparsely Vegetated Concave Surface	(B8)	
Saturatio	on (A3)		·	lvdroaen	Sulfide O	dor (C1)		Drainage Patterns (B10)	· -/	
Water M	Water Marks (B1) Dry-Season Water Table (C2)			Oxidized Rhizospheres on Living Roots (C3)						

 Oxidized Rhizospheres o	n Living Roots	(C3
(where tilled)		

(
 Crayfish Burrows (C8)

-					
 Saturation	Visible	on	Aerial	Imagery	(C9)

Geomorphic Position (D2)

EAC Noutral Test		
FAC-neutral rest	(DS)	1

____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:								
Surface Water Present?	Yes	_ NoX	Depth (inches):					
Water Table Present?	Yes	No X	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):		Wetland Hydrology Present?	Yes	No _	X
Describe Recorded Data (stre	am gauge, r	monitoring	well, aerial photos,	, previous inspec	tions), if available:			

____ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

____ Thin Muck Surface (C7)

____ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Remarks:

____ Sediment Deposits (B2) ____ Drift Deposits (B3)

____ Algal Mat or Crust (B4)

____ Water-Stained Leaves (B9)

____ Inundation Visible on Aerial Imagery (B7)

____ Iron Deposits (B5)

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date:	11/03/21
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	8W
Investigator(s): KEVIN PLOOF	Section, Tow	nship, Range: _	16, 155,	82	
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, convex	k, none): <u>CONV</u>	rex Slo	ope (%): <u>0−2</u>
Subregion (LRR): F Lat:	8.24702	788 Long	<u>-101.223</u>	4257 Datu	um: NAD83
Soil Map Unit Name: <u>Heimdal-Emrick loams</u> , 0	-1% slo	oes	NWI classific	ation: PEM12	A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes	No X	(If no, explain in R	emarks.)	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed?	Are "Norma	al Circumstances" p	present? Yes <u>2</u>	
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally pr	roblematic?	(If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locati	ons, transects	, important fe	eatures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	X Is the Si X within a	ampled Area NWetland?	Yes X	No
Remarks: mostly dry	in the prece	ling weeks			

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	1 (1)
2				(excluding FAC-):	(A)
3				Total Number of Dominant	1
4				Species Across All Strata:	<u> </u>
		= Total Cov	er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	100 (A/B)
1				Decordance bedecorder back	
2				Prevalence Index worksneet:	
3				Total % Cover of: Mult	tiply by:
4.				OBL species x 1 =	
5.				FACW species x 2 =	
		= Total Cov	er	FAC species x 3 =	
Herb Stratum (Plot size: 5)				FACU species x 4 =	
_{1.} Typha angustifolia	10	N	OBL	UPL species x 5 =	
_{2.} Hordeum jubatum	75	Y	FACW	Column Totals: (A)	(B)
3.					
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6.				X 1 - Rapid Test for Hydrophytic Veg	getation
7		·	·	X 2 - Dominance Test is >50%	
/			·	3 - Prevalence Index is $\leq 3.0^1$	
8				4 - Morphological Adaptations ¹ (Pr	rovide supporting
9				data in Remarks or on a separa	ate sheet)
10				Problematic Hydrophytic Vegetation	on ¹ (Explain)
Weedy Vine Stratum (Plat size)	85	= Total Cov	er	¹ Indicators of hydric soil and wotland h	wdrology must
				be present, unless disturbed or problem	matic.
1					
2				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 15		= Total Cov	er	Present? Yes X	
Remarks:					
Tromuno.					

Profile Desc	ription: (Describe	to the depth	needed to	docum	ent the	indicator	or confirn	n the absence of indica	ators.)	
Depth	Matrix			Redox	Feature	s				
(inches)	Color (moist)	%	Color (mois	st)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 2/1	100 _				. <u> </u>		<u>loam</u>		
4-10	10YR 3/1	95 5	5R 4/6		5	С	М	loam		
10-16	10YR 3/1	95 .	5R 4/6		5	С	M	loam		
	·,	·	,				·	·		
<u> </u>		·				·	·			
		·						·		
						<u> </u>		·		
						·				
		lotion PM-P	oducod Mat	riv CS-	Covoro	d or Coato	d Sand Ci	raine ² Location: P	L-Poro Lining M-Matrix	
Hydric Soil	Indicators: (Application)	able to all LF	Rs. unless	otherv	vise not	ed.)		Indicators for Prob	plematic Hydric Soils ³ :	
Histosol	(A1)		Si	andv Gl	leved Ma	atrix (S4)		1 cm Muck (A9)) (LRR I. J)	
Histic E	oipedon (A2)		Sandy Redox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)		
Black H	stic (A3)		Stripped Matrix (S6)					Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	=)	Lo	bamy G	leyed M	atrix (F2)		(LRR H outs	side of MLRA 72 & 73)	
1 cm Mu	ick (A9) (LRR F, G, I	H)	D	epleted	Matrix (F3)		Reduced Vertic	(F18)	
Deplete	d Below Dark Surface	e (A11)	<u></u> R	edox Da	ark Surfa	ace (F6)		Red Parent Mat	terial (TF2)	
Thick Da	Ark Surface (A12)		Depleted Dark Surface (F7) Redex Depressions (F8)					Other (Explain in Remarks)		
2.5 cm l	Aucky Peat or Peat (S2) (I RR G	H) High Plains Depressions (F16)				16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	ickv Peat or Peat (S	3) (LRR F)	(MLRA 72 & 73 of LRR H)				H)	wetland hydrolo	av must be present.	
	,			`			,	unless disturbe	d or problematic.	
Restrictive	Layer (if present):								·	
Туре:										
Depth (in	ches):							Hydric Soil Present	? Yes <u>X</u> No	
Remarks:										
	<u></u>									
HIDROLO	Gĭ									
Wetland Hy	drology Indicators:									

Primary Indicators (minimum of one required; check all that ap	oply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Cru	ust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic	Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydroge	en Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) Dry-Sea	ason Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidize	d Rhizospheres on Living Roots (C3)	(where tilled)
Drift Deposits (B3) (when	re not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presend	ce of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Mu	uck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (B	Explain in Remarks)	X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes No X Depth	(inches):	
Water Table Present? Yes <u>No X</u> Depth	(inches):	
Saturation Present? Yes <u>No X</u> Depth (includes capillary fringe)	(inches): Wetland H	Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aeri	al photos, previous inspections), if ava	ailable:
Remarks:		

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:MINOT	WARD	Sampling Date: 11/04/21				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: 2U-3				
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.): edge of ditch	Local relief (concave, conve	x, none): <u>non</u>	Le Slope (%): 0-1				
Subregion (LRR): F Lat:	48.24681479 Long	g:101.220	Datum: NAD83				
Soil Map Unit Name: Heimdal-Emrick loams, C)-3% slopes	NWI classific	cation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes No _X	(If no, explain in R	emarks.)				
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significant	ly disturbed? Are "Norm	al Circumstances" p	present? Yes X No				
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally p	problematic? (If needed,	explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No X	- Is the Sampled Area						

Hydric Soil Wetland Hy	Present? ydrology Prese	nt?		Yes Yes	No <u>X</u> No <u>X</u>		within a Wetland?	Yes	No	X
Remarks:	mostly	dry	in	the	preceding	wee	eks			

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1		. <u> </u>		That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4	<u> </u>			Species Across All Strata: (B)
		= Total Cov	rer	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksneet:
3	<u> </u>			Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species x 2 =
		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)			01	FACU species x 4 =
_{1.} Brassica rapa	55	Y	UPL	UPL species x 5 =
2.				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Cov	er	¹ Indiastors of hydric coil and watland hydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 45		= Total Cov	rer	Present? Yes No X
Remarke				
incinaino.				

Profile Desc	ription: (Describe f	to the dept	h neec	ed to docu	ment the	indicator	or confirn	n the absence of indicators.)		
Depth	Matrix			Red	ox Feature	es				
(inches)	Color (moist)	%	Colo	or (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	<u> 10YR 2/1</u>	100								
4-10	10YR 3/1	100						SiL		
10-18	10YR 4/3	90	5R	4/6	10	С	М	SiL		
				, -						
								· ·		
		etion RM=	Paduc	ad Matrix C	S=Covere	d or Coate	d Sand G	rains ² l ocation: Pl =Pore Lining M=Matrix		
Hydric Soil	Indicators: (Applica	able to all L	RRs.	inless othe	erwise not	ed.)	u Sanu G	Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		,	Sandy	Gleved M	atrix (S4)		1 cm Muck (A9) (I BB L J)		
Histic Er	pipedon (A2)			Sandy	Redox (St	5)		Coast Prairie Redox (A16) (LRR F. G. H)		
Black Hi	stic (A3)			Strippe	ed Matrix (S	-, S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	;)	Loamy Gleyed Matrix (F2)					(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ıck (A9) (LRR F, G, F	H)		Deplet	ed Matrix ((F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)		Redox	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			Deplet	ed Dark Si	urface (F7))	Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)			Redox	Depressic	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	Aucky Peat or Peat (S	52) (LRR G	, H)	High P	lains Depr	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	3) (LRR F)	(MLRA 72 & 73 of LRR H)					wetland hydrology must be present,		
Bootriotivo	aver (if present);							uniess disturbed or problematic.		
Turney	Layer (il present).									
Type.	-h).									
	cnes):									
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of or	ne required	; check	all that app	oly)			Secondary Indicators (minimum of two requir	ed)	
Surface	Water (A1)			_ Salt Crus	t (B11)			Surface Soil Cracks (B6)		
High Wa	ter Table (A2)		_	_ Aquatic I	nvertebrate	es (B13)		Sparsely Vegetated Concave Surface (B	(8)	
Saturatio	on (A3)		_	_ Hydroger	n Sulfide O	dor (C1)		Drainage Patterns (B10)		
Water Marks (B1) Dry-Season Water Table (C2)			Oxidized Rhizospheres on Living Roots (C3)							

- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:									
Surface Water Present?	Yes No _X	_ Depth (inches):							
Water Table Present?	Yes No _X	_ Depth (inches):							
Saturation Present? (includes capillary fringe)	Yes <u>No X</u>	_ Depth (inches):	Wetland Hydrology Present? Yes	No X					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									

____ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

____ Sediment Deposits (B2)

____ Algal Mat or Crust (B4)

Water-Stained Leaves (B9)

_ Inundation Visible on Aerial Imagery (B7)

Iron Deposits (B5)

____ Drift Deposits (B3)

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date:	11/04/21
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	2W-3
Investigator(s): KEVIN PLOOF	Section, Towr	nship, Range:	16, 155,	82	
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (c	concave, convex	k, none): <u>CONC</u>	ave Slo	pe (%): 0-2
Subregion (LRR):F Lat: _4	8.24669	847 Long	<u>-101.220</u>	3262 Datu	m: NAD83
Soil Map Unit Name: <u>Heimdal-Emrick loams</u> , 0	-3% slop	oes	NWI classific	cation: <u>PEM1</u>	J
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes	No X	(If no, explain in R	emarks.)	
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed?	Are "Norma	al Circumstances" p	present? Yes X	No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally preserved as	roblematic?	(If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locati	ons, transects	, important fe	atures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X Yes No X	Is the Sampled Area within a Wetland? Yes <u>X</u>	_ No
Remarks: mostly dry	in the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				
5				
5		= Total Co	ver	
Herb Stratum (Plot size:)	55	v	TIDT.	FACU species X 4 =
				OPL species X 5 = Oskursz Tatalas (A)
2				Column Totals: (A) (B)
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5			·	1 - Rapid Test for Hydrophytic Vegetation
6			·	2 - Dominance Test is >50%
7				3 - Prevalence Index is < 3 01
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Co	ver	
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 10		= Total Co	ver	Present? Yes ^X No
Remarks: formed wetland				
Larmed Welland				

Profile Desc	cription: (Describe	to the dept	h nee	ded to docu	ment the i	ndicator	or confirn	n the absence of indicators.)		
Depth	Matrix			Redo	ox Feature	s				
(inches)	Color (moist)	%	Co	lor (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100						<u>loam</u>		
4-10	10YR 3/1	95	5R	4/6	5	С	М	loam		
10-16	10YR 3/1	95	5R	4/6	5	С	М	loam		
						·				
						·				
<u> </u>							·			
							<u> </u>			
¹ Type: C=C	oncentration, D=Dep	etion, RM=	Redu	ced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Application)	able to all L	_RRs,	unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)			Sandy	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)			Strippe	d Matrix (S	6)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)			Loamy	Mucky Mir	neral (F1)		High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	;)		Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ıck (A9) (LRR F, G, H	I)		Deplete	ed Matrix (F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)		X Redox	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			Deplete	ed Dark Su	irface (F7)	1	Very Shallow Dark Surface (TF12)		
Sandy N	lucky Mineral (S1)			Redox	Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm M	Mucky Peat or Peat (S2) (LRR G	, H)	High Pl	ains Depre	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	8) (LRR F)		(ML	RA 72 & 1	73 of LRR	(H)	wetland hydrology must be present,		
Destrictive	over (if present);							unless disturbed or problematic.		
Turney	Layer (îl present).									
Type:								Hudria Sail Brasant2 Vac X Na		
	ciles).									
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	ne required	· chec	k all that ann	lv)			Secondary Indicators (minimum of two required)		
Surface	Water (A1)		, 0100	Salt Cruet	(B11)			Surface Soil Cracks (R6)		
High Wa	ter Table (Δ 2)				vertehrate	s (B13)		Snarsely Vegetated Concave Surface (B8)		
Saturation (A3)			Hvdroaen	Sulfide O	Drainage Patterns (B10)					

- ___ Oxidized Rhizospheres on Living Roots (C3)
 - (where tilled)
- Crayfish Burrows (C8)
- _____ Crayfish Burrows (Co)

 _____ X

 Saturation Visible on Aerial Imagery (C9)

 _____ X

 _____ Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (I RR F)

Water-Stained Leaves ((B9)		Frost-Heave Hummocks (D7) (LRR F)						
Field Observations:									
Surface Water Present?	Yes	No _X Dept	h (inches):						
Water Table Present?	Yes	No _X Dept	h (inches):						
Saturation Present? (includes capillary fringe)	Yes	No _X Dept	h (inches):	Wetland Hydrology Present? Yes X No					
Describe Recorded Data (st	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:									

Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

___ Oxidized Rhizospheres on Living Roots (C3)

Water Marks (B1)

____ Drift Deposits (B3)

____ Sediment Deposits (B2)

____ Algal Mat or Crust (B4)

Iron Deposits (B5)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: WINOT WARD Sampling Date: 11/04/21							
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>3U-3</u>							
Investigator(s): <u>KEVIN_PLOOF</u>	_ Section, Township, Range: <u>16,155,82</u>							
Landform (hillslope, terrace, etc.): _edge of ditch	Local relief (concave, convex, none): NONE Slope (%):							
Subregion (LRR): F Lat:	48.24820152 Long: -101.2216639 Datum: NAD83							
Soil Map Unit Name: Tonka silt loams, 0-1%	slopes NWI classification: N/A							
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X (If no, explain in Remarks.)							
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significant	tly disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} 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 No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	 Is the Sampled Area within a Wetland? Yes <u>No X</u> 							

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Provalence Index worksheet:
2				Total % Cover of: Multiply by:
3				
4				
5				
5		= Total Cov	ver	FAC species x 3 =
Herb Stratum (Plot size: 5)		37	TIDT	FACU species x 4 =
1. Brassica rapa	55	<u> </u>	<u>OPL</u>	UPL species x 5 =
2				Column Totals: (A) (B)
3				Prevalence Index = R/A =
4				Hydrophytic Vegetation Indicators
5				1 Danid Test for Hydrophytic Vegetation
6				
7				
8				3 - Prevalence Index is $\leq 3.0^{\circ}$
9				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydronhytic Vegetation ¹ (Explain)
	55	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
45		= Total Cov	ver	Vegetation Present? Ves No X
% Bare Ground in Herb Stratum 45				
Remarks:				

Project/Site: PORT OF ND - CRISI GRANT	_ City/County:MINOT	WARD	Sampling Date: 11/04/21						
Applicant/Owner: PORT OF ND	_ , ,	State: ND	Sampling Point: 7U						
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82						
Landform (hillslope, terrace, etc.): edge of ditch	Local relief (concave, conve	x, none): <u>non</u>	1e Slope (%):0 - 1						
Subregion (LRR): F Lat:	48.25185688 Lon	g:101.221	8356 Datum: NAD83						
Soil Map Unit Name: Tonka silt loams, 0-1%	slopes	NWI classific	cation: N/A						
Are climatic / hydrologic conditions on the site typical for this time of	Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)								
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significant	tly disturbed? Are "Norm	al Circumstances" p	present? Yes X No						
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally μ	problematic? (If needed,	explain any answe	ers in Remarks.)						
SUMMARY OF FINDINGS – Attach site man showing sampling point locations, transacts, important features, etc.									
Hydrophytic Vegetation Present? Yes No X	- Is the Sampled Area								

Hydrophylic Vegetation resent? Hydric Soil Present? Wetland Hydrology Present?	Yes No _ Yes No _	X Is the Sampled Area X within a Wetland?	Yes	NoX
Remarks: mostly dry i	n the preced	ling weeks		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Duranda wa a huduu wa da ha afa
2				
3				Iotal % Cover of:Multiply by:
4				OBL species x 1 =
5.				FACW species x 2 =
_		= Total Cov	ver	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
_{1.} Brassica rapa	55	Y	UPL	UPL species x 5 =
2				Column Totals: (A) (B)
3.				
4.	_			Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
0				3 - Prevalence Index is $≤3.0^1$
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:	55	= Total Cov	/er	¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
۲		- Total Ori		Hydropnytic Vegetation
% Bare Ground in Herb Stratum 45			er	Present? Yes No X
Remarks:				<u> </u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Feature	s	2			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture Rema	rks	
0-4	<u> 10YR 3/3</u>	100					<u>loam</u>		
4-14	10YR 4/3	90 5	R 4/6	10	C	М	CL		
				·					
				·	·				
				·					
¹ Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, CS	=Covered	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Linir	ng, M=Matrix.	
Hydric Soil	Indicators: (Applica	ble to all LR	Rs, unless other	wise not	ed.)		Indicators for Problematic Hyd	dric Soils ³ :	
Histosol	(A1)		Sandy C	Bleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic E	pipedon (A2)		Sandy F	Redox (S5)		Coast Prairie Redox (A16) ((LRR F, G, H)	
Black Hi	istic (A3)		Stripped	I Matrix (S	6)		Dark Surface (S7) (LRR G))	
Hydroge	en Sulfide (A4)		Loamy I	Mucky Mir	neral (F1)		High Plains Depressions (F	16)	
Stratified	d Layers (A5) (LRR F)	Loamy (Jeyed Ma	atrix (F2)		(LRR H outside of MLR Reduced Vortia (E18)	A /2 & /3)	
T chi Mi	d Relow Dark Surface) (Δ11)	Depiete Redox [)ark Surfa	5) Ince (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)	(((1))	Deplete	d Dark Su	inface (F7)		Very Shallow Dark Surface (TF12)		
Sandy N	Aucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Explain in Remarks)	()	
2.5 cm l	Mucky Peat or Peat (S	62) (LRR G, H) High Pla	gh Plains Depressions (F16)			³ Indicators of hydrophytic vegeta	ation and	
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(ML	(MLRA 72 & 73 of LRR H)			wetland hydrology must be p	present,	
							unless disturbed or problem	natic.	
Restrictive	Layer (if present):								
Туре:			-						
Depth (in	ches):		_				Hydric Soil Present? Yes	<u>No X</u>	
Remarks:									
	CV.								

Wetland Hydrology Indicat	ors:		
Primary Indicators (minimum	of one required; ch	Secondary Indicators (minimum of two required)	
		 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) 	
Inundation Visible on Ae	erial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
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 NoX
Describe Recorded Data (st	eam gauge, monito	ring well, aerial photos, previous inspe	ctions), if available:
Remarks:			
Nondina.			

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: _	MINOT	WARD	Sampling Date:	11/04/21
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	7W
Investigator(s): KEVIN PLOOF	Section, Towr	nship, Range:	16, 155,	82	
Landform (hillslope, terrace, etc.):basin	Local relief (c	concave, convex	k, none): <u>CONCa</u>	.ve Slo	ope (%): <u>0−2</u>
Subregion (LRR): F Lat:	48.25182	987 Long	<u>-101.221</u>	.9131 Dati	um: NAD83
Soil Map Unit Name: Tonka silt loam, 0-1% s	lopes		NWI classific	ation: PEM12	A
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes	No X	(If no, explain in R	emarks.)	
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significant	ly disturbed?	Are "Norma	al Circumstances" p	present? Yes	K No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally p	problematic?	(If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showin	ng sampling	point locati	ons, transects	, important fe	eatures, etc.
77					

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: mostly dry in	the preceding wee	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC 1 (A)
2				(excluding FAC=). (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Provolonoo Indox workshooti
2				Tetal % Orwar of
3				Nultiply by:
4				OBL species x 1 =
5				FACW species x 2 =
		= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
_{1.} Hordeum jubatum	85	Y	FACW	UPL species x 5 =
_{2.} Typha angustifolia	10	N	OBL	Column Totals: (A) (B)
3				
4.				Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
0				3 - Prevalence Index is $≤3.0^1$
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10			<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:	95	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5		= I otal Cov	er	Present? Yes X No
Remarks:				I

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type'	Loc ²	Texture	Remarks	
0-8	<u> 10YR 4/3</u>	80					<u> SaL </u>	recent sediment	
	10YR 2/1	20							
8-16	10YR 2/1	100					loam		
16-22	10YR 4/1	80					loam		
	5R 4/6	20		·			SiL		
·				·					
		· ·			<u> </u>				
		·							
		· ·							
¹ Type: C=Co	oncentration, D=Dep	letion, RM=Redu	uced Matrix, CS	S=Covered	d or Coate	d Sand Gr	ains. ² Loc	ation: PL=Pore Lining, M=Matrix.	
Hydric Soli I		able to all LRRS	s, unless other		ea.)		Indicators		
Histosol	(A1) Vinadan (A2)		Sandy C	Sleyed Ma	itrix (S4)		1 cm M	IUCK (A9) (LRR I, J)	
Histic Ep	stic (A2)		Sanuy r	Aeuux (SS A Matrix (S) :6)		Coast Prairie Redox (A16) (LRR F, G, H)		
	n Sulfide (A1)			Mucky Mir	oral (E1)		Lich Plains Doprossions (E16)		
Trydroge Stratified	I avers (A5) (I RR F	=)		Gleved Ma	(F2)		(I BR H outside of MI RA 72 & 73)		
1 cm Mu	ck (A9) (LRR F. G. I	/ H)	X Deplete	X Depleted Matrix (F3)			Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	Redox Dark Surface (F6)				Red Parent Material (TF2)		
Thick Da	irk Surface (A12)	、 ,	Depleted Dark Surface (F7)				Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox Depressions (F8)				Other (Explain in Remarks)		
2.5 cm M	lucky Peat or Peat (S2) (LRR G, H)	High Plains Depressions (F16)			16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (S3	3) (LRR F)	(MLRA 72 & 73 of LRR H)			H)	wetland	d hydrology must be present,	
							unless	disturbed or problematic.	
Restrictive L	ayer (if present):								
Туре:									
Depth (inc	ches):						Hydric Soil	Present? Yes X No	
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; ch	neck all that apply)	Secondary Indicators (minimum of two required)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) 	 Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living R (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) 	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes No	X Depth (inches):	
Water Table Present? Yes No	X Depth (inches):	
Saturation Present? Yes No _ (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspecti	ons), if available:
Remarks:		

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/05/21						
Applicant/Owner: PORT OF ND	State: ND Sampling Point: 4U-3						
Investigator(s): KEVIN PLOOF	Section, Township, Range: 16, 155, 82						
Landform (hillslope, terrace, etc.): edge of ditch	Local relief (concave, convex, none): NONE Slope (%):						
Subregion (LRR): F Lat	48.25278808 Long: -101.2206708 Datum: <u>NAD83</u>						
Soil Map Unit Name: Hamlet-Tonka-Wyard co	mplex, 0-3% slopes NWI classification: <u>N/A</u>						
Are climatic / hydrologic conditions on the site typical for this time	Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>No X</u> (If no, explain in Remarks.)						
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signific	antly disturbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ natural	ly 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 No X	Is the Sampled Area						

Hydric Soil Present? Wetland Hydrology Present?	Yes <u>No X</u> Yes <u>No X</u> Yes <u>No X</u>	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks: mostly dry ir	the preceding wee	eks		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding 1 AC-). (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
l				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
Herb Stratum (Plot size: 5)		= Total Cov	/er	FACU species x 4 =
1 Brassica rapa	55	Y	UPL	UPL species x 5 =
2				Column Totals: (A) (B)
3.				、/
4.				Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
9.				4 - Morphological Adaptations ¹ (Provide supporting
10.				Drahla metia Lluder butia Magatation ¹ (Eveloin)
	55	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
% Bare Ground in Herb Stratum 45		= Total Cov	/er	Vegetation Present? Yes No
Remarks:				1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (r	noist)	%	Type ¹	Loc ²	Texture Remarks	—	
0-8	<u>10YR 3/1</u>	100 _						CL		
8-16	10YR 4/3	90	10YR	4/8	10	С	М	CL		
					·		·		_	
						<u> </u>			—	
						. <u> </u>			—	
	oncentration D=Den	etion RM=R		Matrix CS	S=Covered		d Sand Gr	rains ² Location: PL=Pore Lining M=Matrix	_	
Hydric Soil	Indicators: (Application)	able to all L	RRs, unl	ess other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		,	Sandv C	Gleved Ma	, trix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)			Sandy F	Redox (S5))		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)			Stripped	d Matrix (S	6)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)			Loamy I	Mucky Min	eral (F1)		High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	;)		Loamy (Gleyed Ma	trix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, H	l)		Deplete	d Matrix (F	-3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)		Redox L	Jark Surfa	Ce (F6) feee (F7)		Red Parent Material (TF2)		
Thick Da	Ark Surface (ATZ) Aucky Mineral (S1)				u Dark Sul	(F8)		Very Shallow Dark Surface (TFT2) Other (Explain in Remarks)		
2.5 cm M	Aucky Peat or Peat (S2) (I RR G	H)	High Pla	ains Denre	ssions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	3) (LRR F)		(ML	RA 72 & 7	3 of LRR	(H)	wetland hydrology must be present.		
	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,			,	unless disturbed or problematic.		
Restrictive	Layer (if present):									
Туре:										
 Depth (inches):						Hydric Soil Present? Yes NoX	_			
Remarks:										
Wetland										
	atoro (minimucators:	no roguine -		that are !				Cocondon / Indicators / minimum of two months	d)	
Primary India	cators (minimum of o	ne required;	CHECK All	that apply	<u>y)</u>			Secondary indicators (minimum of two require	<u>a)</u>	

- maio atoro (minia			
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves	(B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present?	Yes No	Depth (inches):	
Water Table Present?	Yes No	Depth (inches):	
Saturation Present? Yes No X Depth (inches):			Wetland Hydrology Present? Yes NoX
Describe Recorded Data (st	ream gauge, moni	toring well, aerial photos, previous inspec	tions), if available:
Remarks:			

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOT	WARD	Sampling Date: <u>11/05/21</u>				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point: <u>4W-3</u>				
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.):basin	Local relief (concave, conve	ex, none): <u>CONC</u> a	ave Slope (%): 0-2				
Subregion (LRR): F Lat:	48.25269153 Lor	ng:101.220	6106 Datum: NAD83				
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classifie	cation: PEM1A				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)							
Are Vegetation Y, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally	problematic? (If needed	l, explain any answe	ers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No		3					
Hydric Soil Present? Yes X No	within a Wetland?	Yes X	No				
Wetland Hydrology Present? Yes X No							
Remarks: mostly dry in the preceding weeks							

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:) 1	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	(A)
3 4				Total Number of Dominant Species Across All Strata:	(B)
Sapling/Shrub Stratum (Plot size:)		= Total Cov	ver	Percent of Dominant Species 00	(A/B)
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	_
3			·	OBL species x 1 =	_
4				FACW species x 2 =	_
5		- Total Cav		FAC species x 3 =	_
Herb Stratum (Plot size: ⁵)				FACU species x 4 =	_
1. Brassica rapa	55	Y	UPL	UPL species x 5 =	_
2.				Column Totals: (A)	(B)
3					,
4				Prevalence Index = B/A =	_
5				Hydrophytic Vegetation Indicators:	
6.			·	1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
0				3 - Prevalence Index is ≤3.0 ¹	
o 9				4 - Morphological Adaptations ¹ (Provide supp data in Remarks or on a separate sheet)	orting
10				X Problematic Hydrophytic Vegetation ¹ (Explain	ו)
Woody Vine Stratum (Plot size:) 1.	55	= Total Cov	ver	¹ Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic.	lust
2.				Hydrophytic	
% Bare Ground in Herb Stratum <u>45</u>		= Total Cov	/er	Vegetation Present? Yes X No	
Remarks: farmed wetland					

Profile Desc	cription: (Describe t	o the depth n	eeded to docun	nent the i	indicator	or confirm	n the absence of	indicators.)		
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-10	<u>10YR 4/2</u>		<u>R 4/6</u>		C	_M				
		1	0YR 6/1	5	D	М	SiL			
				·						
					·					
				·						
¹ Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, CS	S=Covere	d or Coate	d Sand G	rains. ² Locat	ion: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	ble to all LRF	Rs, unless other	wise not	ed.)		Indicators fo	r Problematic Hydric Soils [°] :		
Histosol	(A1)		Sandy C	Sleyed Ma	atrix (S4)		1 cm Muo	ck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy F	Redox (S5	5)		Coast Pra	airie Redox (A16) (LRR F, G, H)		
Black Hi	ISTIC (A3)		Stripped	i Matrix (S	56) norol (E4)		Dark Sur	face (S7) (LRR G)		
Hyuruge	d Lavors (A5) (LPP E)	`			atrix (E2)			Houtside of MLBA 72 & 73)		
Stratilied	ick (A9) (IRREGH))	X Denlete	d Matrix (E3)		Reduced	Vertic (F18)		
Deplete	d Below Dark Surface	(A11)	Redox [Dark Surfa	ace (F6)		Red Pare	ent Material (TF2)		
Thick Da	ark Surface (A12)	()	Deplete	d Dark Su	urface (F7)		Very Sha	Very Shallow Dark Surface (TF12)		
Sandy N	/ucky Mineral (S1)		Redox [Depressio	ons (F8)		Other (E)	xplain in Remarks)		
2.5 cm M	Mucky Peat or Peat (S	62) (LRR G, H) High Pla	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	ucky Peat or Peat (S3)) (LRR F)	(ML	RA 72 &	73 of LRR	H)	wetland h	hydrology must be present,		
							unless di	sturbed or problematic.		
Restrictive	Layer (if present):									
Туре:			-							
Depth (in	ches):		-				Hydric Soil Pr	resent? Yes <u>X</u> No		
Remarks:							1			
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of or	ne required; ch	eck all that apply	y)			Secondary	Indicators (minimum of two required)		
Surface	Water (A1)		Salt Crust	(B11)			Surfac	e Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Inv	vertebrate	es (B13)		Sparse	ely Vegetated Concave Surface (B8)		
Saturatio	on (A3)		Hydrogen	Sulfide O	dor (C1)		Draina	ge Patterns (B10)		
Water M	larks (B1)		Dry-Seaso	n Water 1	Table (C2)		Oxidiz	ed Rhizospheres on Living Roots (C3)		
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	eres on Liv	ing Roots	(C3) (whe	ere tilled)		
Drift Der	posits (B3)		(where r	not tilled))	U	Cravfis	sh Burrows (C8)		
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	!)	X Satura	tion Visible on Aerial Imagery (C9)		
Iron Der	posits (B5)		Thin Muck	Surface	(C7)		X Geomo	orphic Position (D2)		
Inundati	on Visible on Aerial In	nagery (B7)	Other (Exp	plain in Re	emarks)		FAC-N	leutral Test (D5)		
Water-S	tained Leaves (B9)				,		Frost-H	Heave Hummocks (D7) (LRR F)		
Field Obser	vations:							,		
Surface Wat	er Present? Ye	es No	X Depth (ind	ches):						

Saturation Present?	Yes	NoX	_ Depth (inches):		Wetland Hydrolog
(includes capillary fringe)					
Describe Recorded Data	(stream gauge,	monitoring	well, aerial photos,	previous inspec	tions), if available:

 Yes
 No
 X
 Depth (inches):

 Yes
 No
 X
 Depth (inches):

Remarks:

Water Table Present?

Wetland Hydrology Present? Yes X No

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: WINOT WARD Sampling Date:						
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>5U</u>						
Investigator(s): <u>KEVIN_PLOOF</u>	_ Section, Township, Range: <u>16,155,82</u>						
Landform (hillslope, terrace, etc.): edge of ditch	Local relief (concave, convex, none):NONE Slope (%):						
Subregion (LRR): F Lat:	48.25389271 Long: -101.2203841 Datum: <u>NAD83</u>						
Soil Map Unit Name: Hamlet-Souris loam, 0-	3% slopes NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No X (If no, explain in Remarks.)						
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significant	tly disturbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} 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 NoX Hydric Soil Present? Yes NoX Wetland Hydrology Present? Yes NoX	 Is the Sampled Area within a Wetland? Yes <u>No X</u> 						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC
2				(excluding FAC-):
2				Total Newsbarr of Dansis and
				I otal Number of Dominant
4				
		= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Development body we dealer at
2				Prevalence index worksneet:
3.				Total % Cover of: Multiply by:
4				OBL species x 1 =
т Е				FACW species x 2 =
o				FAC species x 3 =
		= Total Cov	/er	
<u>Rragica</u> rana	55	v	TIDT.	
1. BIASSICA IAPA				UPL species X 5 =
2				Column Totals: (A) (B)
3				
4.				
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
7				3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydronbytic Vegetation ¹ (Explain)
	55	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2				Hydrophytic
2.		- Total Car		Vegetation
% Bare Ground in Herb Stratum 45			/ei	Present? Yes <u>No X</u>
Remarks:				
nomano.				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²			Type ¹	Loc ²	Texture Remarks		
0-8	<u> 10YR 3/1</u>	100 _						CL		
8-16	10YR 4/3		OYR	4/8	10	C	М			
¹ Type: C=C	oncentration D=Depl	etion RM=R	educed I	Aatrix CS	=Covered	l or Coate	d Sand Gr	rains ² Location: PL=Pore Lining M=Matrix		
Hydric Soil	Indicators: (Applica	able to all LR	Rs, unl	ess other	wise note	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy Gleyed Matrix (S4)					1 cm Muck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy Redox (S5)					Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	istic (A3)		Stripped Matrix (S6)					Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)					High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2)					(LRR H outside of MLRA 72 & 73)		
1 cm Mu	uck (A9) (LRR F, G, F	1)	Depleted Matrix (F3)					Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redox Dark Surface (F6)					Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Depleted Dark Surface (F7)					Very Shallow Dark Surface (TF12)		
Sandy N	/lucky Mineral (S1)		Redox Depressions (F8)					Other (Explain in Remarks)		
2.5 cm M	Mucky Peat or Peat (S	62) (LRR G, I	 H) High Plains Depressions (F16) 				16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)				H)	wetland hydrology must be present,		
Destrictive								unless disturbed or problematic.		
Tuno	Layer (il present):									
Dopth (inches):			_					Hydric Soil Present? Yes No X		
Deptil (III	cnes).									
Remarks:										
IYDROLOGY										

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)		
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)		
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)		
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)		
Sediment Deposits (B2) Oxidized Rhizospheres on Living F	Roots (C3) (where tilled)		
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)		
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)		
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)		
Field Observations:			
Surface Water Present? Yes <u>No X</u> Depth (inches):			
Water Table Present? Yes <u>No X</u> Depth (inches):			
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:		
Remarks:			

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD	Sampling Date: <u>11/05/21</u>					
Applicant/Owner: PORT OF ND	State: <u>ND</u>	Sampling Point: 5W					
Investigator(s): KEVIN PLOOF	_ Section, Township, Range: <u>16,155</u> ,	82					
Landform (hillslope, terrace, etc.):basin	_ Local relief (concave, convex, none): CONCar	ve Slope (%): 0-2					
Subregion (LRR): F Lat: _	48.25389271 Long: -101.220	3841 Datum: NAD83					
Soil Map Unit Name: Hamlet-Souris loam, 0-	3% slopes NWI classifica	ation: PEM1A					
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No \underline{X} (If no, explain in Re	emarks.)					
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significar	ly disturbed? Are "Normal Circumstances" pr	resent? Yes X No					
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally	roblematic? (If needed, explain any answer	s in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	- Is the Sampled Area within a Wetland? Yes X	No					

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2		·		(excluding FAC-):
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
		= Total Co	ver	Descent of Descinent One size
Sapling/Shrub Stratum (Plot size:)			VCI	That Are OBL EACW or EAC ² (A/B)
1.				
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
				OBL species x 1 =
4				FACW species x 2 =
5				FAC species x 3 =
Horb Stratum (Plot size: 5		= Total Co	ver	
Braggica rana	55	v	TIDT.	
				$OPL species \underline{\qquad} X S = \underline{\qquad} (D)$
2				Column I otals: (A) (B)
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				Depid Test for Lludrophytic Vegetation
6		. <u> </u>		
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.0'
9				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Co	ver	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1			. <u></u>	be present, unless disturbed or problematic.
2.				Hydrophytic
		= Total Co	ver	Vegetation
% Bare Ground in Herb Stratum 45				Present? Yes A No
Remarks: farmed wetland				-

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-10	10YR 4/2	90	5R 4/6	5						
	<i>,</i>		10YR 6/1	5	. <u> </u>					
			10110 0/1							
							·			
1							. 2			
'Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, CS	S=Covere	d or Coate	ed Sand G	rains. ² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	ble to all Li	RRS, unless other	wise not	ed.)		Indicators for Pi	roblematic Hydric Solls":		
Histosol	(A1)		Sandy G	Bleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)			
Histic Ep	pipedon (A2)		Sandy F	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	stic (A3)		Stripped	Stripped Matrix (S6)			Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)		Loamy N	Loamy Mucky Mineral (F1)			High Plains Depressions (F16)			
Stratified	Layers (A5) (LRR F))	Loamy (Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)		
	ICK (A9) (LRR F, G, H)		Depleted Matrix (F3)				Reduced Vertic (F18)		
Depleted	Below Dark Surface	(A11)	Redox L	Redox Dark Surface (F6)				Red Parent Material (TF2)		
	ark Surface (A12)		Depleted	Depleted Dark Surface (F7)				Very Shallow Dark Sufface (TF12)		
	lucky Mineral (S1)		Redox L	Redox Depressions (F8)				<u>Uner (Explain in Remarks)</u>		
2.5 cm M	AUCKY Peat or Peat (S	(LRR G,	H) High Pla	High Plains Depressions (F16)				indicators of hydrophytic vegetation and		
	ICKY Peat or Peat (S3))(LRR F)		(MLRA 72 & 73 of LRR H)			wetland hydrology must be present,			
D (1) (1)							unless distur	bed or problematic.		
Restrictive	Layer (if present):									
Туре:										
Depth (inches):							Hydric Soil Prese	Hydric Soil Present? Yes X No		
Remarks:										
HYDROLO	HYDROLOGY									
Wetland Hydrology Indicators:										
Primany India	pators (minimum of or	o roquirod	check all that apply	0			Secondary Ind	licators (minimum of two required)		
		ie required,	unduk alı tilat appi	Y.)			Secondary Ind	icators (minimum of two required)		

Primary Indicators (minimur	n of one required	d; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (0	2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on	Living Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron	C4) <u>X</u> Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves	(B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present?	Yes 1	No \underline{X} Depth (inches):	
Water Table Present?	Yes N	No \underline{X} Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes N	No X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (st	ream gauge, mo	onitoring well, aerial photos, previous	inspections), if available:
Remarks:			

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOT	WARD	Sampling Date: 11/05/21				
Applicant/Owner: PORT OF ND		State: ND	Sampling Point:6U				
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.): edge of ditch	Local relief (concave, conve	ex, none): <u>non</u>	Le Slope (%): 0-1				
Subregion (LRR): F Lat:	48.25381129 Lon	g: <u>-101.221</u>	7505 Datum: NAD83				
Soil Map Unit Name: <u>Hamlet-Souris</u> loam, 0.	-3% slopes	NWI classific	cation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No _X	_ (If no, explain in R	emarks.)				
Are Vegetation $\underline{Y}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significa	ntly disturbed? Are "Norm	al Circumstances" p	present? Yes X No				
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	/ problematic? (If needed	, explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes No X							
Hydric Soil Present? Yes No _X	Is the Sampled Area within a Wetland?	l Vos	No X				
Wetland Hydrology Present? Yes NoX		165					

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	(Δ)
2					(~)
3				Total Number of Dominant	
4				Species Across All Strata.	(Þ)
Sanling/Shruh Stratum (Plot size:		= Total Cov	/er	Percent of Dominant Species	
1				That Are OBL, FACW, or FAC:	(A/B)
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	
۵ ۸				OBL species x 1 =	_
				FACW species x 2 =	
···		= Total Cov	/er	FAC species x 3 =	_
Herb Stratum (Plot size: 5)				FACU species x 4 =	
_{1.} Brassica rapa	55	Y	UPL	UPL species x 5 =	
2				Column Totals: (A)	(B)
3					
4				Prevalence Index = B/A =	
5				A Denid Test for Undershutic Versetation	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				$3 - \text{Prevalence index is } \leq 3.0$	
9				data in Remarks or on a separate sheet)	porting
10				Problematic Hydrophytic Vegetation ¹ (Expla	in)
	55	= Total Cov	ver		<i>,</i>
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.	must
1					
2				Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 45		= Fotal Cov	ver	Present? Yes No X	
Remarks:					

Profile Desc	cription: (Describe t	o the depth ne	eded to docur	nent the i	ndicator	or confirm	the absence of indica	ators.)		
Depth	Depth Matrix				s ,					
(inches)	Color (moist)	<u> % C</u>	olor (moist)	%	Type'	Loc ²	Texture	Remarks		
0-8	<u> 10YR 3/1</u>	100								
8-16	10YR 4/3	90_10	YR 4/8	10	C	М	CL			
·				·			·			
						<u> </u>				
¹ Type: C=C	oncentration. D=Deple	etion. RM=Red	uced Matrix. CS	S=Covered	d or Coate	d Sand Gr	ains. ² Location: Pl	L=Pore Lining, M=Matrix,		
Hydric Soil	Indicators: (Applica	ble to all LRR	, unless other	wise not	ed.)		Indicators for Prob	lematic Hydric Soils ³ :		
Histosol	(A1)		Sandy Gleyed Matrix (S4)				1 cm Muck (A9) (LRR I, J)			
Histic Ep	pipedon (A2)		Sandy Redox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	istic (A3)		Stripped Matrix (S6)				Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)				High Plains Depressions (F16)			
Stratified	d Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)			
1 cm Mu	uck (A9) (LRR F, G, H)	Depleted Matrix (F3)				Reduced Vertic (F18)			
Depleted	d Below Dark Surface	(A11)	Redox Dark Surface (F6)				Red Parent Material (TF2)			
	ark Surface (A12)		Depleted Dark Surface (F7)				Very Shallow Dark Sufface (TFT2)			
	Aucky Milleral (ST)		High Plains Depressions (F6)				³ Indicators of hydrophytic vogotation and			
<u> </u>	icky Peat or Peat (S3	$(\mathbf{I} \mathbf{R} \mathbf{R} \mathbf{F})$	(MI RA 72 & 73 of L RR H)				wetland hydrology must be present			
		(2001)					unless disturbed	d or problematic.		
Restrictive	Layer (if present):							•		
Туре:										
Depth (inches):							Hydric Soil Present	? Yes <u>No X</u>		
Remarks:	Remarks:									
HYDROLO	IYDROLOGY									

Wetland Hydrology Indica	tors:								
Primary Indicators (minimur	n of one requ	uired; check a		Secondary Indicators (minimum of two required)					
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Water-Stained Leaves 	ı erial Imagery (B9)	/ (B7)	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) 				
Field Observations:	Vaa	No X	Double (inchas):						
Surface water Present?	Yes	N0	_ Deptn (Inches):						
Water Table Present?	Yes	No	_ Depth (inches):						
Saturation Present? Yes <u>No X</u> Depth (inches):					Wetland Hydrology Present? Yes No _X				
Describe Recorded Data (st	ream gauge	, monitoring v	well, aerial photos, previous inspec	ctions), if avai	lable:				
Remarks:	Remarks:								

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: <u>MINOT WARD</u> Sampling Date: <u>11/04/21</u>						
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>11U-2</u>						
Investigator(s): <u>KEVIN_PLOOF</u>	_ Section, Township, Range: <u>16,155,82</u>						
Landform (hillslope, terrace, etc.):edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>						
Subregion (LRR): F Lat: _	48.25424151 Long: -101.2301525 Datum: NAD83						
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of $\Lambda_{\rm res}$ //contaction N = Coil N = contaction N = contaction = = Contacti	Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)						
Are Vegetation _ N _, Soil _ N _, or Hydrology _ N _ significantly disturbed? Are "Normal Circumstances" present? Yes _ A _ No Are Vegetation _ N _, Soil _ N _, or Hydrology _ N _ 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 No X Hydric Soil Present? Yes X No Vo Wetland Hydrology Present? Yes No X	Is the Sampled Area within a Wetland? Yes <u>No X</u>						

VEGETATION – Use scientific names of plants.

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···		= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
_{1.} Elymus trachycaulus	60	Y	FACU	UPL species x 5 =
2. Elymus repens	25	Y	FACU	Column Totals: (A) (B)
3. Hordeum jubatum	10	N	FACW	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/				3 - Prevalence Index is $≤3.0^1$
8			<u> </u>	4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Co	/er	¹ Indiactors of hydria sail and watland hydrology must
woody vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Para Cround in Horb Stratum 10	90	= Total Cov	/er	Present? Yes No X
I CHICINO.				

Sampling Point: 11U

Profile Desc	ription: (Describe	to the dep	th needed	to docur	nent the i	ndicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			Redo	x Features	3	2		
(inches)	Color (moist)	<u>%</u>	Color (r	noist)	%	Type'	Loc ²	<u> </u>	Remarks
0-4	10YR 2/1	100						<u>loam</u>	
4-12	10YR 2/1	90	10YR	4/6	10	C	M	loam	
12-18	10YR 3/2	90	10YR	4/6	10	С	М	loam	
						······		·	
¹ Type: C=Co	oncentration, D=Dep	letion, RM	Reduced N	Aatrix, CS	S=Covered	d or Coate	d Sand Gr	ains. ² Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to all	LRRs, unle	ess othe	rwise note	∋d.)		Indicators for	Problematic Hydric Soils":
Histosol	(A1)			Sandy (Gleyed Ma	trix (S4)		1 cm Muck	(A9) (LRR I, J)
Histic Ep	opedon (A2)			Sandy I	Redox (S5)		Coast Prai	rie Redox (A16) (LRR F, G, H)
Black His	SIIC (A3) n Sulfido (A4)			Stripped	u Matrix (S Mucky Mir	oral (E1)		Dark Surfa	Ce(S7)(LRR G)
Trydroge Stratified	II avers (A5) (I RR I	F)		Loamy	Gleved Ma	atrix (F2)		(I RR H	outside of MI RA 72 & 73)
0 tratilieu 1 cm Mu	ck (A9) (LRR F. G.	H)		Deplete	d Matrix (F	=3)		Reduced \	/ertic (F18)
Depleted	Below Dark Surfac	e (A11)	x	Redox I	Dark Surfa	ce (F6)		Red Paren	t Material (TF2)
Thick Da	rk Surface (A12)	. ,		Deplete	d Dark Su	rface (F7)		Very Shall	ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)			Redox I	Depressio	ns (F8)		Other (Exp	lain in Remarks)
2.5 cm N	lucky Peat or Peat (S2) (LRR (G, H)	High Pla	ains Depre	essions (F	16)	³ Indicators of h	ydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S	3) (LRR F)		(ML	.RA 72 & 7	'3 of LRR	H)	wetland hy	drology must be present,
Bootriotivo I	aver (if present):							unless dist	urbed or problematic.
Type	ayer (il present).								
Denth (inc	hes).							Hydric Soil Pre	sent? Yes X No
Remarks:								injune con rie	
Remarks.									
HYDROLO	GY								
Wetland Hyd	drology Indicators:								
Primary Indic	ators (minimum of c	one required	d; check all	that appl	y)			Secondary II	ndicators (minimum of two required)
Surface	Water (A1)		S	alt Crust	(B11)			Surface	Soil Cracks (B6)
High Wa	ter Table (A2)		A	quatic In	vertebrate	s (B13)		Sparsel	Vegetated Concave Surface (B8)
Saturatio	on (A3)		H	lydrogen	Sulfide Od	dor (C1)		Drainag	e Patterns (B10)
Water M	arks (B1)		C	ry-Seaso	on Water T	able (C2)		Oxidized	Rhizospheres on Living Roots (C3)
Sedimen	it Deposits (B2)		C	xidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wher	e tilled)
Drift Dep	oosits (B3)			(where	not tilled)			Crayfish	Burrows (C8)
Algal Ma	t or Crust (B4)		P	resence	of Reduce	d Iron (C4	•)	Saturati	on Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		T	hin Muck	Surface (C7)		Geomor	phic Position (D2)
Inundatio	on Visible on Aerial I	Imagery (B	7) <u> </u>	ther (Exp	olain in Re	marks)		FAC-Ne	utral Test (D5)
Water-St	tained Leaves (B9)							Frost-He	eave Hummocks (D7) (LRR F)
Field Observ	vations:								
Surface Wate	er Present? Y	′es	No <u>×</u> I	Depth (in	ches):		_		
Water Table	Present? Y	′es	No <u>×</u> I	Depth (in	ches):		_		
Saturation Pr	resent? Y	′es	No <u>X</u> I	Depth (in	ches):		Wetla	and Hydrology Pr	esent? Yes No $_$ X
(includes cap	oillary tringe) corded Data (stream	naurae mo	nitorina we	ll aerial	nhotos nr	evious ins	nections)	if available [.]	
		. 30090, 110		, aonai	p.10.00, pr		- coaono <i>j</i> ,		
Remarks:									

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: _ MINOT	WARD	Sampling Date: 12	1/04/21			
Applicant/Owner: PORT OF ND		State: ND	Sampling Point:	11W-2			
Investigator(s): KEVIN PLOOF	Section, Township, Range:	16, 155,	82				
Landform (hillslope, terrace, etc.):basin	Local relief (concave, conve	ex, none): _ CONC	cave Slope	(%): 0-2			
Subregion (LRR): F Lat:	48.25408234 Lor	ng:101.230)1312 Datum:	NAD83			
Soil Map Unit Name: Tonka silt loam, 0-1%	slopes	NWI classific	cation: PEM1F				
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	_ (If no, explain in F	Remarks.)				
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significan	tly disturbed? Are "Norm	nal Circumstances"	present? Yes X	No			
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	problematic? (If needed	, explain any answe	ers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No							

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks: mostly dry ir	n the preceding wee	eks		

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	•
2					A)
3				Total Number of Dominant	
4				Species Across All Strata: (E	B)
		= Total Cov	rer	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: 100 (A	A/B)
1					
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	
4.				OBL species x 1 =	
5				FACW species x 2 =	
		= Total Cov	er	FAC species x 3 =	
Herb Stratum (Plot size: 5)			01	FACU species x 4 =	
1. Hordeum jubatum	20	Y	FACW	UPL species x 5 =	
2. Typha angustifolia	60	Y	OBJ	Column Totals: (A)	(B)
3.					
4				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6				X 1 - Rapid Test for Hydrophytic Vegetation	
0				\underline{X} 2 - Dominance Test is >50%	
/			·	3 - Prevalence Index is ≤3.0 ¹	
8		<u> </u>		4 - Morphological Adaptations ¹ (Provide suppor	rting
9			·	data in Remarks or on a separate sheet)	•
10			. <u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)	
	80	= Total Cov	er	¹ Indiactors of hydric soil and watland hydrology mus	ot.
				be present, unless disturbed or problematic.	รเ
1			·	·····························	
2				Hydrophytic	
% Para Craund in Harb Stratum 20		= Total Cov	rer	Present? Yes X No	
% bare Ground in Herb Stratum 2.0 Percente:					
Remains.					

Sampling Point: <u>11W-2</u>

Denth	inpuon. (Matrix	to the dep	in neede	Redc	ox Feature	s	or comm	IT the absence of	indicators.)
(inches)	Color	(moist)	%	Color	(moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-4	10YR	2/1	100						SiL	
4-12	10YR	2/1	95	10YR	8/1	5	C	M	SiL	
12-18	10YR	6/2	95	10YR	8/1	5	С	М	SiL	
					•					
¹ Type: C=Co	oncentratio	on, D=Dep	letion, RM	=Reduced	Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Locat	ion: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators	: (Applic	able to all	LRRs, ur	less othe	rwise not	ted.)		Indicators for	or Problematic Hydric Soils ³ :
<u> </u>	(A1)				Sandy	Gleyed M	atrix (S4)		1 cm Mu	ck (A9) (LRR I, J)
Histic Ep	oipedon (A	2)		_	_ Sandy I	Redox (S	5)		Coast Pr	airie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)				_ Strippe	d Matrix (S6)		Dark Sur	face (S7) (LRR G)
Hydroge	n Sulfide (-		_ Loamy	Mucky Mi	neral (F1)		High Pla	ins Depressions (F16)
Stratified	Layers (A lick (A9) (I	A5) (LRR I BREG	F) H)		_ Loamy	Gleyed M d Matrix	(F2)		(LKK Reduced	H OUTSIDE OF MLRA /2 & /3)
Depleted	Below Da	ark Surfac	e (A11)	2	Redox	Dark Surf	ace (F6)		Red Pare	ent Material (TF2)
Thick Da	ark Surface	e (A12)		_	Deplete	d Dark S	urface (F7))	Very Sha	allow Dark Surface (TF12)
Sandy M	lucky Mine	eral (S1)		_	Redox	Depressio	ons (F8)		Other (E	xplain in Remarks)
2.5 cm N	/lucky Pea	t or Peat (S2) (LRR	G, H)	_ High Pl	ains Depr	essions (F	16)	³ Indicators of	hydrophytic vegetation and
5 cm Mu	icky Peat o	or Peat (S	3) (LRR F)		(ML	.RA 72 &	73 of LRR	RH)	wetland h	hydrology must be present,
Restrictive I	aver (if n	resent):								sturbed of problematic.
Type [.]	-ajoi (ii p									
Depth (inc	ches).								Hydric Soil P	resent? Yes \mathbf{X} No
Remarks:									,	
r tomarito.										
	<u></u>									
HYDROLO	GY									
Wetland Hyd	drology In	dicators:								
Primary Indic	<u>ators (mir</u>	nimum of c	one require	d; check a	II that appl	y)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)			Salt Crust	(B11)			Surfac	ce Soil Cracks (B6)
High Wa	iter Table	(A2)			Aquatic In	vertebrate	es (B13)		Spars	ely Vegetated Concave Surface (B8)
Saturatio	on (A3)				Hydrogen	Sulfide C	dor (C1)		Draina	age Patterns (B10)
Water M	arks (B1)			_	Dry-Seaso	on water	Table (C2)	ing Dooto		ed Rhizospheres on Living Roots (C3)
Sealmer	n Deposits	5 (DZ)			(where	not tilled		ing Rools	(US) (WH	ere tilled) sh Burrows (C8)
	at or Crust	(B4)			Presence	of Reduc) ed Iron (C4	1)	X Satura	ation Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)	(64)			Thin Muck	Surface	(C7)	•)	X Geom	orphic Position (D2)
Inundatio	on Visible	on Aerial I	magery (B	7)	Other (Ex	plain in R	emarks)		X FAC-N	Veutral Test (D5)
Water-St	tained Lea	ives (B9)	- 3 - 7 (,		-	,		Frost-	Heave Hummocks (D7) (LRR F)
Field Observ	vations:	. ,							· <u> </u>	
Surface Wate	er Present	? Y	′es	No_X	Depth (in	ches): _				
Water Table	Present?	Y	es	No X	Depth (in	ches):				
Saturation Pr	resent?	Y	'es	No X	Depth (in	ches):		Wet	and Hydrology I	Present? Yes <u>X</u> No
(includes cap	oillary fring	e)		onitoring	all corial	nhataa n	roviouo ino	nactional	if available:	
Describe Rec	Lorded Da	ia (sileam	i yauye, m	onitioning V	ien, aerial	μποτος, ρ	evious ins	pections),	n avallable.	
Pemarka										
rteindiks.										

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINO	T WARD	Sampling Date: 11/04/21						
Applicant/Owner: PORT OF ND		State: <u>ND</u>	Sampling Point: <u>12U-2</u>						
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Township, Ra	nge: <u>16, 155,</u>	82						
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave,	convex, none): <u>non</u>	.e Slope (%): 0-1						
Subregion (LRR): F Lat:	48.25431495	Long: -101.222	9001 Datum: NAD83						
Soil Map Unit Name: Hamlet-Souris loams,	L-5% slopes	NWI classific	ation: N/A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)									
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significa	Are Vegetation Y, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No								
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally	/ problematic? (If ne	eded, explain any answe	rs in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes No X	In the Commission	A							
Hydric Soil Present? Yes No X	within a Wetlar	Area	No X						
Wetland Hydrology Present? Yes NoX									
Remarks: mostly dry in the precedin	g weeks								

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Provolance Index workshoot
2				
3				Multiply by:
4				
5				FACW species x 2 =
_		= Total Co	/er	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
<u>1 Brassica rapa</u>	55	Y	UPL	UPL species x 5 =
2				Column Totals: (A) (B)
3				Dravelance Index - D/A -
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8.				$_$ 3 - Prevalence Index is ≤3.0 ¹
9				4 - Morphological Adaptations ¹ (Provide supporting
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Co	/er	
Woody Vine Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2		·		Hydrophytic
% Bare Ground in Herb Stratum45	55	= Total Co	ver	Vegetation Present? Yes <u>No X</u>
Remarks:				1

Profile Desc	cription: (Describe	o the depth	needed	to docun	nent the i	ndicator	or confirm	the absence of i	ndicato	rs.)
Depth	Matrix			Redo	x Features	\$				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-4	10YR 2/1	100								
4-12	10YR 3/1	100						loam		
12-18	10YR 5/3	90 1	0YR	4/6	10	С	М	loam		
							·			
					·		<u> </u>			
¹ Type: C=C	oncentration. D=Depl	etion. RM=Re	duced	Matrix. CS	=Covered	l or Coate	d Sand Gr	ains. ² Locatio	n: PL=F	Pore Lining. M=Matrix.
Hydric Soil	Indicators: (Applica	able to all LR	Rs, unl	ess other	wise note	ed.)		Indicators for	Problen	natic Hydric Soils ³ :
Histosol	(A1)			Sandy G	Bleyed Ma	trix (S4)		1 cm Muck	(A9) (L	RR I, J)
Histic Ep	pipedon (A2)			Sandy F	Redox (S5))		Coast Prai	rie Redo	ox (A16) (LRR F, G, H)
Black Hi	istic (A3)			Stripped	Matrix (S	6)		Dark Surfa	ace (S7)	(LRR G)
Hydroge	en Sulfide (A4)			Loamy N	Aucky Min	eral (F1)		High Plain	s Depres	ssions (F16)
Stratified	d Layers (A5) (LRR F	⁽)		_ Loamy (Gleyed Ma	trix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	JCK (A9) (LRR F, G, F d Bolow Dark Surface	1) \ (A 1 1 \		_ Deplete	d Matrix (F	-3) 20 (E6)		Reduced \	/ertic (F	18) N (TE2)
Depieted	u Below Dark Sullace ark Surface (A12)	(ATT)			d Dark Sulla	ce (Fo) rface (F7)		Very Shall	ow Dark	al (TF2) Surface (TF12)
Sandy M	Aucky Mineral (S1)			Redox F)epressior	nace (i 7) ns (F8)		Other (Exc	olain in R	emarks)
2.5 cm M	Mucky Peat or Peat (52) (LRR G, I	I)	High Pla	ains Depre	ssions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	ucky Peat or Peat (S3	6) (LRR F)	,	(ML	RA 72 & 7	3 of LRR	H)	wetland hy	drology	must be present,
								unless dist	turbed or	problematic.
Restrictive	Layer (if present):									
Туре:			_							
Depth (in	ches):		_					Hydric Soil Pre	sent?	Yes No _X
Remarks:								1		
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	ne required; c	heck al	that apply	()			Secondary I	ndicators	s (minimum of two required)
Surface	Water (A1)		5	Salt Crust	(B11)			Surface	Soil Cra	icks (B6)
High Wa	ater Table (A2)		/	Aquatic Inv	vertebrates	s (B13)		Sparsel	y Vegeta	ted Concave Surface (B8)
Saturatio	on (A3)		ł	Hydrogen	Sulfide Od	lor (C1)		Drainag	e Patteri	ns (B10)
Water M	larks (B1)		[Dry-Seaso	n Water T	able (C2)		Oxidized	d Rhizos	pheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		(Dxidized R	hizospher	es on Liv	ing Roots ((wher	e tilled)	
Drift Dep	posits (B3)			(where r	not tilled)			Crayfish	Burrow	s (C8)
Algal Ma	at or Crust (B4)		F	Presence	of Reduce	d Iron (C4)	Saturati	on Visibl	e on Aerial Imagery (C9)
Iron Dep	oosits (B5)		1	Thin Muck	Surface (C7)		Geomor	phic Pos	sition (D2)

	`
 FAC-Neutral Test (D	5)

____ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:			
Surface Water Present?	Yes No \underline{X} Depth (inches):		
Water Table Present?	Yes No X Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes <u>No X</u> Depth (inches): _	Wetland Hydrology Present?	Yes No
Describe Recorded Data (stre	am gauge, monitoring well, aerial photos, p	revious inspections), if available:	
Remarks:			

____ Other (Explain in Remarks)

Inundation Visible on Aerial Imagery (B7)

Water-Stained Leaves (B9)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/04/21							
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>12W-2</u>							
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Township, Range: <u>16</u> , 155, 82							
Landform (hillslope, terrace, etc.):basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>							
Subregion (LRR): F Lat: 4	8.2544305 Long: -101.2228891 Datum: NAD83							
Soil Map Unit Name: Hamlet-Souris loam, 0-3	% slopes NWI classification: PEM1A							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)								
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally pr	oblematic? (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 Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland? Yes X No							

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2		·		(excluding FAC-). (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Co	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3				
4				
5				FAC vv species x 2 =
F		= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size: 5)		57	TIDT	FACU species x 4 =
1. Brassica rapa		<u> </u>	UPL	UPL species x 5 =
2				Column Totals: (A) (B)
3				Prevalence Index = R/A =
4				Hydrophytic Vogetation Indicators:
5				1 Danid Test for Hydrophytic Vegetation
6				
7				
8				$3 - Prevalence index is \leq 3.0^{\circ}$
9				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Co	ver	¹ Indicators of hydric soil and watland hydrology must
<u>Woody Vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.
1		·		······································
2				Hydrophytic
% Bare Ground in Herb Stratum <u>45</u>		= Total Co	ver	Present? Yes X No
Remarks: farmed wetland				1

Profile Desc	cription: (Describe to the de	pth needed to docun	nent the	indicator	or confirm	m the absence of	indicators.)
Depth	Matrix	Redo	x Feature	<u>s</u>	. 2	. <u> </u>	
(inches)	<u>Color (moist)</u> %	Color (moist)	%	Type'	Loc	Texture	Remarks
0-10	<u>10YR 4/2 90</u>	<u>5R 4/6</u>		C	<u>M</u>		
		10YR 6/1	5	D	M	SiL	
·		· _					
. <u> </u>		·					
¹ Type: C=C	oncentration, D=Depletion, RM	I=Reduced Matrix, CS	3=Covere	ed or Coate	ed Sand G	Grains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicable to al	I LRRs, unless other	wise not	ted.)		Indicators for	r Problematic Hydric Soils ³ :
<u> </u>	(A1)	Sandy C	Gleyed Ma	atrix (S4)		1 cm Muc	:k (A9) (LRR I, J)
Histic Ep	pipedon (A2)	Sandy F	Redox (St	5)		Coast Pra	airie Redox (A16) (LRR F, G, H)
Black Hi	istic (A3)	Stripped	J Matrix (S6)		Dark Surf	ace (S7) (LRR G)
Hydroge	en Sulfide (A4)	Loamy I	Mucky Mi	neral (F1)		High Plair	ns Depressions (F16)
Stratilied		Loarny (X Deplete	Gleyea IVI	atrix (F2)		(LKK I Reduced	H outside of MLRA (2 & (3)
Deplete	d Below Dark Surface (A11)	Redox [Dark Surf	ace (F6)		Red Pare	ent Material (TF2)
Thick D	ark Surface (A12)	Deplete	d Dark Si	urface (F7)	Very Sha	llow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)	Redox [Depressio	ons (F8)	,	Other (Ex	(plain in Remarks)
2.5 cm M	Mucky Peat or Peat (S2) (LRR	G, H) High Pla	ains Depr	essions (F	[:] 16)	³ Indicators of	hydrophytic vegetation and
5 cm Mı	ucky Peat or Peat (S3) (LRR F) (ML	RA 72 &	73 of LRF	ξ Η)	wetland h	ydrology must be present,
						unless dis	sturbed or problematic.
Restrictive	Layer (if present):						
Туре:							х
Depth (In	ches):	<u> </u>				Hydric Soil Pr	esent? Yes <u>~</u> No
Remarks:							
Wetland Hy	drology Indicators:		-				
Primary India	cators (minimum of one require	ed; check all that apply	y)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)	Salt Crust	(B11)			Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)	Aquatic Inv	vertebrate	es (B13)		Sparse	ly Vegetated Concave Surface (B8)
Saturatio	on (A3)	Hydrogen	Sulfide O	dor (C1)		Draina	ge Patterns (B10)
Water №	farks (B1)	Dry-Seaso	n Water	Table (C2))		ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)	Oxidized H	<pre></pre>	eres on Liv	ing Roots	; (C3) (whe	ere tilled)
	posits (B3)	(where r	10t tillea) 			h Burrows (C8)
	at or Crust (B4)	Presence of	of Reduce	ed Iron (C4	4)		tion Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		Surface	(C7)			Signature Position (D2)
	on visible on Aerial Imagery (E	37) Other (Exp	biain in Re	emarks)		FAC-N	eutral Test (D5)
vvater-5	stained Leaves (B9)					Frost-F	1eave Hummocks (D7) (LRR F)

	0			,		· · ·		
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)					
Field Observations:								
Surface Water Present?	Yes	No De	epth (inches):					
Water Table Present?	Yes	No _X De	epth (inches):					
Saturation Present? (includes capillary fringe)	Yes	No <u>X</u> De	epth (inches):		Wetland Hydrology Present?	Yes X	No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								
Project/Site: PORT OF ND - CRISI GRANT	_ City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>							
---	--	--	--	--	--	--	--	
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>32U</u>							
Investigator(s): KEVIN PLOOF	Section, Township, Range: 8, 155, 82							
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>							
Subregion (LRR): F Lat: _4	18.25183011 Long: -101.2412673 Datum: NAD83							
Soil Map Unit Name: Tonka silt loams, 0-1%	slopes NWI classification: N/A							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \underline{X} (If no, explain in Remarks.) Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significantly disturbed? Are "Normal Circumstances" present? Yes \underline{X} No								
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally problematic? (If needed, explain any answers in Remarks.)								
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	 Is the Sampled Area within a Wetland? Yes <u>No X</u> 							
Remarks: mostly dry in the preceding	y weeks							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL_FACW_or FAC
2	_			(excluding FAC-): (A)
2		· <u> </u>		
3		· <u> </u>		Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL. FACW. or FAC: 0 (A/B)
1.				()
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
0				OBL species x 1 =
4		·		FACW species x 2 =
5		·		FAC species x 3 =
		= Total Cov	er	
Herb Stratum (Plot size:)	0.0	3.7		FACU species x 4 =
<u>1 Bouteloua dactyloides</u>	20	<u> </u>	FACU	UPL species x 5 =
_{2.} Bouteloua gracilis	65	Y	FACU	Column Totals: (A) (B)
_{3.} Poa pratensis	5	Ν	FACU	
4.				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
o		·		1 - Rapid Test for Hydrophytic Vegetation
0		· <u> </u>		2 - Dominance Test is >50%
/		·		3 - Prevalence Index is $≤3.0^{1}$
8		·		4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Cov	er	
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed of problematic.
2				Hydrophytic
	90	= Total Cov	er	Vegetation
% Bare Ground in Herb Stratum <u>10</u>				Present? Yes No A
Remarks:				1

Profile Desc	cription: (Describe	to the depth nee	eded to docu	ment the in	dicator	or confirn	n the absence of inc	licators.)	
Depth	Matrix		Red	ox Features					
(inches)	Color (moist)	<u>%</u> Co	Color (moist) % Type ¹ Loc ²				Texture	Remarks	;
0-6	10YR 2/1	100							
6-10	10YR 3/1	100					CL		
12-18	10YR 3/2	100					CL		
<u> </u>		· ·							
		·		:					
		·							
¹ Type: C=C	oncentration, D=Dep	letion, RM=Redu	ced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Location:	PL=Pore Lining,	M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRRs	, unless othe	erwise noted	d.)		Indicators for P	roblematic Hydrid	c Soils³:
Histosol	(A1)		Sandy	Gleyed Matr	rix (S4)		1 cm Muck (A9) (LRR I, J)	
Histic Ep	pipedon (A2)		Sandy Redox (S5)			Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	istic (A3)		Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)				High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	=)	Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)		
1 cm Mu	JCK (A9) (LRR F, G, I	H)	Depleted Matrix (F3)				Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redox Dark Surface (F6)				Red Parent Material (TF2)		
I NICK Da	ark Surface (A12)		Depleted Dark Surface (F7)			Very Shallow Dark Surface (1F12)			
Sanuy iv	Aucky Milleral (ST)		Redux	Depression:	5 (FO) Deione (F	16)	³ Indicators of hydrophytic vegetation and		
2.5 CH M	viucky Feat of Feat ($(\mathbf{LKK} \mathbf{G}, \mathbf{\Pi})$	H) High Plains Depressions (F16)			wetland hydrology must be present			
			(MLRA /2 & /3 OF LRR H)			•••	unless disturbed or problematic		
Restrictive I	Layer (if present):								
Туре:									
Depth (in	ches):						Hydric Soil Prese	ent? Yes	No X
Remarks:									
/DROLO	GY								

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one r	Secondary Indicators (minimum of two required)	
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imag 	Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) gery (B7) Other (Explain in Remarks)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes _	No X Depth (inches):	
Saturation Present? Yes _ (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gau	uge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:		

Project/Site: <u>PORT OF ND - CRISI GRANT</u>	City/County: MINOT WARD Sampling Date: 11/05/21					
Applicant/Owner: PORT OF ND	State: ND Sampling Point:32W					
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: 8, 155, 82					
Landform (hillslope, terrace, etc.): basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>					
Subregion (LRR):F Lat: _4	8.25178785 Long: -101.2412466 Datum: NAD83					
Soil Map Unit Name: Tonka silt loams, 0-1%	slopes NWI classification:PEM1C					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)						
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>Y</u> significantl	y disturbed? Are "Normal Circumstances" present? Yes <u>A</u> No					
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally p	roblematic? (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 Hydric Soil Present? Yes X No	Is the Sampled Area					

Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No	within a Wetland?	Yes_X No
Remarks: mostly dry in	the preceding we	eks	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3.				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	or	
Sapling/Shrub Stratum (Plot size:)		- 10101 0000		That Are OBL, FACW, or FAC:(A/B)
1				Drevelance Index workshoot
2				Prevalence Index worksneet:
3				Total % Cover of:Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
		- Total Cov		FAC species x 3 =
Herb Stratum (Plot size: 5)			51	FACU species x 4 =
Typha angustifolia	75	Y	OBL	UPL species x 5 =
2. Sonchus arvense	15	N	FAC	Column Totals: (A) (B)
3.				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6		· ·		X 1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/		· ·		3 - Prevalence Index is $≤3.0^1$
8		·		4 - Morphological Adaptations ¹ (Provide supporting
9		·		data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Cove	er	¹ Indicators of hydric coil and watland hydrology must
				be present, unless disturbed or problematic.
1		· ·		······································
2		·		Hydrophytic
V Dave Occurred in User Observers 10		= Total Cove	er	Present? Yes X No
% Bare Ground in Herb Stratum				
Remarks:				

Profile Desc	cription: (Describe t	o the depth r	needed to docu	ment the	indicator	or confirm	the absence of inc	licators.)		
Depth	epth Matrix Redox Features									
(inches)	Color (moist)		<u>Color (moist)</u> <u>%</u> <u>Type¹</u> Loc ²				Texture	Remarks		
0-12	<u>10YR 4/2</u>	<u> 95 5</u>	R 4/6	5	C	M	<u>loam</u>			
							·			
¹ Type: C=C	oncentration, D=Depl	etion, RM=Re	duced Matrix, C	S=Covere	d or Coate	ed Sand Gr	ains. ² Location	PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	ble to all LR	Rs, unless othe	erwise not	ed.)		Indicators for P	roblematic Hydric Soils":		
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)			
Histic Ep	pipedon (A2)		Sandy	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	ISTIC (A3)		Strippe	d Matrix (56) norol (E4)		Dark Surface	e(S7) (LRR G)		
Hydroge	en Sumae (A4)	\	Loamy		neral (F1)		High Plains Depressions (F16)			
Stratilied	u Layers (AS) (LKK F))	X Deplet	oleyeu w od Matrix (auix (FZ) (F3)		(LRR H OULSIDE OF MILRA 72 & 73) Reduced Vertic (E18)			
Depleter	d Below Dark Surface	(A11)	Redox	Dark Surf	ace (F6)		Reduced Venic (F16) Red Parent Material (TE2)			
Thick Da	ark Surface (A12)	(/11)	Deplete	ed Dark Si	ute (F7)		Very Shallow Dark Surface (TE12)			
Sandy M	/lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other (Expla	ain in Remarks)		
2.5 cm M	Mucky Peat or Peat (S	62) (LRR G, F	I) High P	Iains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(MI	LRA 72 &	73 of LRR	R H)	wetland hydr	ology must be present,		
							unless distu	rbed or problematic.		
Restrictive	Layer (if present):									
Туре:			_							
Depth (in	ches):		_				Hydric Soil Pres	ent? Yes <u>X</u> No		
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of or	ne required; c	neck all that app	oly)			Secondary Inc	licators (minimum of two required)		

Primary Indicators (minimur	n of one required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7)	Other (Explain in Remarks)	X FAC-Neutral Test (D5)
Water-Stained Leaves	B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present?	Yes No	o X Depth (inches):	
Water Table Present?	Yes No	o X Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes No	o X Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (st	ream gauge, moni	itoring well, aerial photos, previous inspe	ctions), if available:
Remarks:			

Wetland 29

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	_ Sampling Date: 1	1/05/21	
Applicant/Owner: <u>PORT OF ND</u>			State: ND	Sampling Point:	31U	
Investigator(s): KEVIN PLOOF	Section, Tow	nship, Range: _	8, 155, 8	32		
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex	k, none): <u>nor</u>	ne Slope	e (%): 0-1	
Subregion (LRR): F La	at: 48.25610	613 Long	g:101.236	51019 Datum	NAD83	
Soil Map Unit Name: Hamlet-Souris-Tonka 1	oams, 0-39	% slopes	NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	NoX	(If no, explain in F	Remarks.)		
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signifi	icantly disturbed?	Are "Norma	al Circumstances"	present? Yes X	No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natura	ally problematic?	(If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	X Is the	Sampled Area	~	V		
Wetland Hydrology Present? Yes No	X within	a wetland?	Yes	<u>NO A</u>		

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	(A)
2					(A)
3				Total Number of Dominant	
4				Species Across All Strata: (E	B)
		= Total Cov	/er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A	A/B)
1				Descelar a hada waada baata	
2				Prevalence Index worksheet:	
3				Total % Cover of:Multiply by:	
4.				OBL species x 1 =	
5				FACW species x 2 =	
···		= Total Cov	/or	FAC species x 3 =	
Herb Stratum (Plot size: 5)		- 10101 001		FACU species x 4 =	
1. Brassica rapa	55	Y	FACU	UPL species x 5 =	
2.				Column Totals: (A)	(B)
3					()
аа				Prevalence Index = B/A =	
T				Hydrophytic Vegetation Indicators:	
5				1 - Rapid Test for Hydrophytic Vegetation	
6				2 - Dominance Test is >50%	
7				3 - Prevalence Index is ≤3.0 ¹	
8				4 - Morphological Adaptations ¹ (Provide suppo	ortina
9				data in Remarks or on a separate sheet)	
10				Problematic Hydrophytic Vegetation ¹ (Explain))
	55	= Total Cov	/er		
Woody Vine Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology mus	ist
1					
2				Hydrophytic	
45	55	= Total Cov	ver	Vegetation Present? Ves No X	
% Bare Ground in Herb Stratum					
Remarks:					

Profile Desc	ription: (Describe t	the depth no	eded to docu	ment the	indicator	or confirn	n the absence of indicators.)			
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	<u>%</u> (Color (moist)	%	Type ¹	Loc ²	Texture Remarks			
0-6	10YR 2/1	100				<u>CL</u>	_			
6-10	10YR 3/2	100					CL			
10-18	10YR 4/3	95 51	R 4/6	5	С	М	CL	_		
								_		
								_		
·		·						-		
·								-		
¹ Type: C=Co	oncentration, D=Depl	etion, RM=Red	luced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.	-		
Hydric Soil	Indicators: (Applica	able to all LRR	s, unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :			
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)			
Histic Ep	oipedon (A2)		Sandy	Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	stic (A3)		Strippe	d Matrix (S6)		Dark Surface (S7) (LRR G)			
Hydroge	n Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)			
Stratified	Layers (A5) (LRR F	⁽)	Loamy Gleyed Matrix (F2)				(LRR H outside of MLRA 72 & 73)			
1 cm Mu	ick (A9) (LRR F, G, H	1)	Deplete	ed Matrix (F3)		Reduced Vertic (F18)			
Depleted	d Below Dark Surface	e (A11)	Redox	Dark Surf	ace (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)		Deplete	ed Dark Si	urface (F7)	Very Shallow Dark Surface (TF12)			
Sandy M	lucky Mineral (S1)		Redox	Depressic	ons (F8)		Other (Explain in Remarks)			
2.5 cm M	/lucky Peat or Peat (S	62) (LRR G, H)	High Pl	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(ML	RA 72 &	73 of LRF	RH)	wetland hydrology must be present,			
							unless disturbed or problematic.			
Restrictive I	_ayer (if present):									
Туре:										
Depth (ind	ches):		-				Hydric Soil Present? Yes No X			
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary Indic	cators (minimum of or	ne required; ch	eck all that app	ly)			Secondary Indicators (minimum of two required)		
Surface	Water (A1)		Salt Crust	(B11)			Surface Soil Cracks (B6)			
High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)		Sparsely Vegetated Concave Surface (B8)			

Sparsely Vegetated Concave Surface (B8)
Drainage Patterns (B10)

 Oxidized Rhizospheres on Living Roots (C3)
(where tilled)	

- (where tilled)
- Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- ____ Frost-Heave Hummocks (D7) (LRR F)

Wetland Hydrology Present? Yes NoX
nspections), if available:

_ Hydrogen Sulfide Odor (C1)

(where not tilled)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Dry-Season Water Table (C2)

Presence of Reduced Iron (C4)

___ Oxidized Rhizospheres on Living Roots (C3)

Remarks:

Saturation (A3)

Water Marks (B1)

Drift Deposits (B3)

Sediment Deposits (B2)

Algal Mat or Crust (B4) Iron Deposits (B5)

Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/05/21
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>31</u> W
Investigator(s): KEVIN_PLOOF	Section, Township, Range: 8 , 155 , 82
Landform (hillslope, terrace, etc.): basin	_ Local relief (concave, convex, none):CONCAVE Slope (%):2
Subregion (LRR): F Lat:4	8.25605473 Long: -101.2359793 Datum: NAD83
Soil Map Unit Name: Hamlet-Souris-Tonka com	plex, 0-3% slopes_NWI classification:PEM1C
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No \underline{X} (If no, explain in Remarks.)
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally pr	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	
Hydric Soil Present? Yes X No	is the Sampled Area
Wetland Hydrology Present? Yes X No	

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2				(excluding FAC-):	(A)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)
1				Provolonoo Indox workohooti	
2				Total % Cover of Multiply by	
3					
4				OBL species x 1 =	_
5				FACW species x 2 =	_
_		= Total Cov	ver	FAC species x 3 =	_
Herb Stratum (Plot size: <u>5</u>)				FACU species x 4 =	_
_{1.} Brassica rapa	55	<u>Y</u>	UPL	UPL species x 5 =	_
2				Column Totals: (A)	(B)
3					
4				Prevalence Index = B/A =	
5.				Hydrophytic Vegetation Indicators:	
6	-			1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				$_$ 3 - Prevalence Index is $\leq 3.0^1$	
9.	-			4 - Morphological Adaptations ¹ (Provide sup	porting
10.				X Drahlemetic Lludrenhutic Verstation ¹ (Funda)	-
	55	= Total Cov	/or		n)
Woody Vine Stratum (Plot size:)		- 10101 000		¹ Indicators of hydric soil and wetland hydrology n	nust
1.				be present, unless disturbed or problematic.	
2.				Hydrophytic	
	-	= Total Cov	/er	Vegetation	
% Bare Ground in Herb Stratum 45				Present? Yes <u>X</u> No	
Remarks:				1	

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			Redo	x Feature	S1	2		
(inches)	Color (moist)	%	Color	(moist)	%	Type'	Loc ²	Texture	Remarks
0-6	<u> 10YR 2/1</u>	100			·			<u> loam </u>	
6-10	10YR 3/1	90	10YR	6/1	5	D	М	loam	
			5R	4/6	5	С	М	loam	
		· ·				·			
		·			·	·			
						·			
		· ·							
					. <u></u>	<u> </u>			
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced	Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all I	RRs, un	less other	wise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histosol	(A1)		_	_ Sandy C	Gleyed Ma	atrix (S4)		1 cm Muck	(A9) (LRR I, J)
Histic Ep	pipedon (A2)		_	_ Sandy F	Redox (S5	5)		Coast Prai	irie Redox (A16) (LRR F, G, H)
Black Hi	istic (A3)			_ Stripped	d Matrix (S	56)		Dark Surfa	ace (S7) (LRR G)
Hydroge	en Sulfide (A4)		_	_ Loamy I	Mucky Mir	neral (F1)		High Plains Depressions (F16)	
Stratified	d Layers (A5) (LRR I	F)		_ Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)	
1 cm Mu	JCK (A9) (LRR F, G, I	H)		_ Deplete	d Matrix (F3)		Reduced Venic (F18)	
Depleted	a Below Dark Sunac	e (ATT)		<u>Redox L</u>	d Dork Suna	ace (F6) urfago (E7)		Very Shallow Dark Surface (TF12)	
Thick Da	Aucky Mineral (S1)			_ Depiete Redox [u Daik Su Jenressia	inace (17) ns (F8)		Other (Evr	blain in Remarks)
2.5 cm M	Mucky Peat or Peat (S2) (I RR G	(H) —	High Pla	ains Denre	essions (F	16)	³ Indicators of h	vdrophytic vegetation and
5 cm Mu	uckv Peat or Peat (S	3) (LRR F)	,, _	(ML	RA 72 & 1	73 of LRR	H)	wetland hv	drology must be present.
	,	-/(/		,			,	unless dist	turbed or problematic.
Restrictive	Layer (if present):								
Туре:									
Depth (in	ches):							Hydric Soil Pre	esent? Yes <u>X</u> No
Remarks:									
HYDROLO	GY								
Wetland Hv	drology Indicators:								
Primary India	cators (minimum of c	one required	; check a	II that appl	V)			Secondary I	ndicators (minimum of two required)
Surface Water (A1)				Salt Crust (B11)				Surface	Soil Cracks (B6)
High Wa	ater Table (A2)			Aquatic Invertebrates (B13)				Sparsel	v Vegetated Concave Surface (B8)
Saturation (A3)				Hydrogen Sulfide Odor (C1)				Drainad	e Patterns (B10)
Water M	larks (B1)		Dry-Season Water Table (C2)				Oxidized	d Rhizospheres on Living Roots (C3)	
Sedimer	_	Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wher	re tilled)		

- Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Front Lloove Llummonke (D7) (I BB E)

	(D9)					
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:						

(where not tilled)

Thin Muck Surface (C7)

___ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

____ Drift Deposits (B3)

____ Algal Mat or Crust (B4)

Iron Deposits (B5)

Water Steined Leaves (DO)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: <u>MINOT</u>	WARD	Sampling Date: 1	1/05/21	
Applicant/Owner: PORT OF ND		State: ND	Sampling Point:	23U	
Investigator(s): <u>KEVIN PLOOF</u>	_ Section, Township, Range:	8, 155, 8	32		
Landform (hillslope, terrace, etc.): _edge of basin	Local relief (concave, conve	ex, none): <u>non</u>	Le Slope	e (%): <u>0-1</u>	
Subregion (LRR): F Lat: _	48.2586176 Lon	g:101.231	L4678 Datum:	NAD83	
Soil Map Unit Name: Hamlet-Souris-Tonka co	mplex, 0-3% slo <u>p</u>	Des NWI classific	cation: <u>N/A</u>		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No _X	(If no, explain in R	Remarks.)		
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significar	tly disturbed? Are "Norm	al Circumstances" p	present? Yes X	No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	problematic? (If needed	, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes <u>No X</u>	- Is the Sampled Area	I			
Wetland Hydrology Present? Yes NoX	within a Wetland?	Yes	<u>No X</u>		

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1				(A)
2				
3				Species Across All Strata (B)
4	_	- Total Cov		
Sapling/Shrub Stratum (Plot size:)		- 10tal C0		That Are OBL, FACW, or FAC: 0 (A/B)
1				()
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
5		= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size:)			F 3 011	FACU species x 4 =
1. <u>Brassica rapa</u>	55	<u> </u>	FACU	UPL species x 5 =
2				Column Totals: (A) (B)
3				Prevalence Index = B/A =
4	_			Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6	_			2 - Dominance Test is >50%
/				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10		- Total Ca		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)			ver	¹ Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2.				Hydrophytic
	55	= Total Co	ver	Vegetation
% Bare Ground in Herb Stratum <u>45</u>				Present? Yes No
Remarks: edge of harvested cano	la fie	eld		

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	n the absence of indica	ators.)	
Depth	Matrix		Red	ox Feature	es1	. 2	- (
(incnes)	10000 (moist)	100	Color (moist)	%	Type	LOC		Remarks	
0-6	10YR 2/1	100							
6-12	10YR 3/1	100					<u>CL</u>		
12-18	10YR 4/3		R 4/6	5	C	M	S1L		
					_				
						. <u> </u>	·		
							·		
<u> </u>									
¹ Type: C=Co	oncentration, D=Depl	letion, RM=Re	duced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location: P	L=Pore Lining, M=Matrix.	
Hydric Soil I	indicators: (Applica	able to all LR	Rs, unless othe	erwise no	ted.)		Indicators for Prob	Diematic Hydric Solls":	
Histosol	(A1)		Sandy	Sandy Gleyed Matrix (S4)			1 cm Muck (A9) (LRR I, J)		
HISUC Ep	stic (A3)		Stripped Matrix (S6)				Dark Surface (S7) (IRR G)		
	n Sulfide (Δ4)		Loamy Mucky Mineral (F1)				High Plains Depressions (E16)		
Stratified	l avers (A5) (LRR F	;)	Loamy	Gleved M	latrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, H	/ H)	Depleted Matrix (F3)				Reduced Vertic (F18)		
Depleted	Below Dark Surface	é (A11)	Redox	Dark Surf	ace (F6)		Red Parent Mat	terial (TF2)	
Thick Da	ark Surface (A12)	()	Deplete	ed Dark S	urface (F7)		Very Shallow D	ark Surface (TF12)	
Sandy M	lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other (Explain i	in Remarks)	
2.5 cm N	lucky Peat or Peat (S2) (LRR G, H	I) High P	lains Depr	essions (F	16)	³ Indicators of hydrop	phytic vegetation and	
5 cm Mu	cky Peat or Peat (S3	8) (LRR F)	(MLRA 72 & 73 of LRR H)			H)	wetland hydrolo	gy must be present,	
							unless disturbe	d or problematic.	
Restrictive L	_ayer (if present):								
Туре:		_							
Depth (inc	ches):		_				Hydric Soil Present	? Yes <u>No X</u>	
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indica	tors:						
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required)							
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)				
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)				
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)				
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)				
Sediment Deposits (B2))	Oxidized Rhizospheres on Living	ng Roots (C3) (where tilled)				
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)				
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Thin Muck Surface (C7)	Geomorphic Position (D2)				
Inundation Visible on A	erial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)				
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 NoX				
Describe Recorded Data (st	ream gauge, monito	oring well, aerial photos, previous inspe	ections), if available:				
Remarks:							
1							

Project/Site: PORT OF ND - CRISI GRANT	City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>
Applicant/Owner: <u>PORT OF ND</u>	State: ND Sampling Point:23W
Investigator(s): KEVIN PLOOF	Section, Township, Range: <u>16,155,82</u>
Landform (hillslope, terrace, etc.): <u>basin</u>	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>
Subregion (LRR): F Lat: _	
Soil Map Unit Name: Hamlet-Souris-Tonka con	omplex, 0-3% slopes NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No _X (If no, explain in Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significar	antly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	ly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showi	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	
Hydric Soil Present? Yes X No	
Wetland Hydrology Present? Yes X No	within a wetland? Tes <u>**</u> No
Remarks: mostly dry in the preceding	ng weeks

	Absolute	Dominan	t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC 2 (A)
2				
3				Total Number of Dominant
4				
Sapling/Shrub Stratum (Plot size:)		= Total Co	over	Percent of Dominant Species 100 (A/P)
1				
2.				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
_		= Total Co	over	FAC species x 3 =
Herb Stratum (Plot size: 5)				FACU species x 4 =
1. Phalaris arundinacea	50	Y	FACW	UPL species x 5 =
_{2.} Spartina pectinata	35	Y	FACW	Column Totals: (A) (B)
_{3.} Elymus repens	10	N	FACU	Dravalance Index D/A -
4				Hydrophytic Vegetation Indicators:
5				X 1 Banid Toot for Hydrophytic Vegetation
6				2. Deminance Test in >50%
7				2 - Dominance rest is < 30%
8				$\frac{3}{2} - \frac{3}{2} - \frac{1}{2} = \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}$
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	95	= Total Co	over	
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				····· · · · · · · · · · · · · · · · ·
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5		= Total Co	over	Present? Yes X No
Remarks: edge of planted ca	nola 1	field		1

Profile Desc	cription: (Describe	to the dept	h needed to d	ocument the i	ndicator	or confirn	n the absence of indicators.)			
Depth	Matrix			Redox Feature	s					
(inches)	Color (moist)	%	Color (mois	t) <u>%</u>	Type ¹	Loc ²	Texture F	Remarks		
	<u>10YR 2/1</u>	100					<u>loam</u>			
2-14	10YR 3/1	95	5R 4/6	5	С	М	SiL			
		· ·			·	<u> </u>				
		· ·								
		lotion DM-	Doducod Matri	x CS=Covered	d or Coote	d Sand C	raina ² l contion: DI -Doro	Lipipa M-Matrix		
Hydric Soil	Indicators: (Applic	able to all	RRs. unless	otherwise not	ed.)	u Sanu G	Indicators for Problemati	ic Hydric Soils ³ :		
Histosol	(A1)		Sa	ndv Gleved Ma	atrix (S4)		1 cm Muck (A9) (I RR	I.I)		
Histic E	pipedon (A2)		Sa	ndy Redox (S5	5)		Coast Prairie Redox (A	A16) (LRR F, G, H)		
Black H	istic (A3)		Str	ipped Matrix (S	, 66)		Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)		Loa	amy Mucky Mir	neral (F1)		High Plains Depressions (F16)			
Stratifie	d Layers (A5) (LRR I	F)	Loa	amy Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)			
1 cm Mu	uck (A9) (LRR F, G, I	H)	De	pleted Matrix (I	F3)		Reduced Vertic (F18)			
Deplete	d Below Dark Surfac	e (A11)	<u></u> Re	dox Dark Surfa	ace (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)		De	pleted Dark Su)	Very Shallow Dark Su	rface (TF12)		
	/lucky Mineral (S1)		Ке	dox Depressio	NS (F8)	16)	Other (Explain in Rem ³ Indicators of hydrophytic)	arks)		
2.5 CII I	viucky Peat of Peat (32) (LRR 0 3) (I DD E)	ι, π) <u> </u>			10) • LI \	Indicators of hydrophytic vegetation and			
		3) (EIXIX I)					unless disturbed or pro	oblematic		
Restrictive	Laver (if present):									
Type:	, , , , , , , , , , , , , , , , , , ,									
Depth (in	ches):						Hvdric Soil Present? Ye	es ^X No		
Remarks:	/						,			
r tornarito.										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary Indi	cators (minimum of c	ne required	: check all that	apply)			Secondary Indicators (m	ninimum of two required)		
Surface	Water (A1)		Salt (Crust (B11)			Surface Soil Cracks	s (B6)		
High Wa	ater Table (A2)		Aqua	tic Invertebrate	s (B13)		Sparsely Vegetated	Concave Surface (B8)		
Saturati	on (A3)		Hvdro	aen Sulfide O	dor (C1)		Drainage Patterns (B10)		
Water M	larks (B1)		Dry-S	Season Water T	able (C2)		Oxidized Rhizospheres on Living Roots (C			

Crayfish Burrows (C8)

х	Saturation	Visible	on Aerial	Imagery	(C9)
---	------------	---------	-----------	---------	------

X Geomorphic Position (D2)

(where tilled)

Water-Stained Leaves (B9)			Frost-Heave Hummocks (D7) (LRR F)			
Field Observations:							
Surface Water Present?	Yes	No	Depth (inches):				
Water Table Present?	Yes	NoX	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes <u>X</u> No	o
Describe Recorded Data (st	ream gauge,	monitoring v	well, aerial photos,	previous inspec	tions), if available:		
Remarks:							

___ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Thin Muck Surface (C7)

___ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Drift Deposits (B3)

Iron Deposits (B5)

Project/Site: PORT OF ND - CRISI GRANT	City/Co	ounty: <u>M</u>	INOT	WARD) s	ampling Da	ate: <u>11/</u>	05/21
Applicant/Owner: PORT OF ND				State: N	ID s	ampling Po	oint: 3	UOU
Investigator(s): KEVIN PLOOF	Sectior	n, Townshi	p, Range: _	8, 1	55, 82	-		
Landform (hillslope, terrace, etc.): edge of basin	Local	relief (cond	ave, conve	x, none):	none		Slope (%	b): 0-1
Subregion (LRR):F Lat:	48.25	69221	2 Long	g: <u>-101</u>	1.2353	259 i	Datum: N	IAD83
Soil Map Unit Name: Hamlet-Souris-Tonka co	omplex	, 0-3	% slop	Des NW	'I classificat	ion: N/Z	Ą	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)								
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significa	antly disturb	ed?	Are "Norm	al Circums	stances" pre	sent? Yes	<u>Х</u>	No
Are Vegetation $_$ M _, Soil $_$ M _, or Hydrology $_$ M _ naturall	y problemat	ic?	(If needed,	, explain ar	ny answers	in Remarks	s.)	
SUMMARY OF FINDINGS – Attach site map show	/ing sam	oling po	int locati	ions, tra	insects, i	mportan	t featur	es, etc.
Hydrophytic Vegetation Present? Yes NoX		le the Sar	nnlad Araa					
Hydric Soil Present? Yes <u>No X</u>		within a V	lipieu Area Votland?	· •	/os	No	х	
Wetland Hydrology Present? Yes NoX		within a v	Vetiana					
Remarks: mostly dry in the precedir	ng weel	s						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				
2				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···		= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size: 5)		- 10101 001		FACU species x 4 =
1. Brassica rapa	55	Y	FACU	UPL species x 5 =
2.				Column Totals: (A) (B)
3				
4		·		Prevalence Index = B/A =
5		·		Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
0		·		2 - Dominance Test is >50%
7				3 - Prevalence Index is $≤3.0^1$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10		· <u> </u>		Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plat size)	55	= Total Cov	/er	¹ Indicators of hydric soil and wotland hydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 45	55	= Total Cov	/er	Present? Yes No X
Remarks:				

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	m the absence of indicators.)		
Depth	Matrix		Red	ox Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 2/1	100 _					CL		
6-10	10YR 3/2	100					CL		
10-18	10YR 4/3	95	5R 4/6	5	С	М	CL		
		·							
		·					·		
¹ Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless othe	erwise no	ted.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)		Sandy	Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Strippe	d Matrix (S6)		Dark Surface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	ineral (F1)		High Plains Depressions (F16)		
Stratified	d Layers (A5) (LRR F	=)	Loamy	Gleyed N	latrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ıck (A9) (LRR F, G, I	H)	Deplet	ed Matrix	(F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redox	Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deplet	ed Dark S	urface (F7)	1	Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	/lucky Peat or Peat (S2) (LRR G,	H) High P	lains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	3) (LRR F)	(M	LRA 72 &	73 of LRR	H)	wetland hydrology must be present,		
							unless disturbed or problematic.		
Restrictive I	Layer (if present):								
Туре:								_	
Depth (ind	ches):						Hydric Soil Present? Yes No _X	<u> </u>	
Remarks:									
HYDROLO	GY								
Wetland Hyd	drology Indicators:								

Wettand Hydrology maloators.					
Primary Indicators (minimum of one r	Secondary Indicators (minimum of two required)				
Surface Water (A1)	Salt Crust (B11)	Surface Soil Cracks (B6)			
High Water Table (A2)	Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)			
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) (where tilled)			
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)			
Algal Mat or Crust (B4)	_ Algal Mat or Crust (B4) Presence of Reduced Iron (C4)				
Iron Deposits (B5)	Geomorphic Position (D2)				
Inundation Visible on Aerial Imag	ery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)			
Field Observations:					
Surface Water Present? Yes	No X Depth (inches):				
Water Table Present? Yes	No X Depth (inches):				
Saturation Present? Yes _ (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes NoX			
Describe Recorded Data (stream gau	ige, monitoring well, aerial photos, previous inspec	tions), if available:			
Remarks:					
1					

Project/Site: PORT OF ND - CRISI GRANT	City/County:MINOT	WARD	_ Sampling Date: <u>11/05/21</u>
Applicant/Owner: PORT OF ND		State: ND	_ Sampling Point: <u>30W</u>
Investigator(s): KEVIN PLOOF	Section, Township, Range:	8, 155,	82
Landform (hillslope, terrace, etc.): basin	Local relief (concave, conve	ex, none):CO	ncave Slope (%): 0-2
Subregion (LRR):F Lat:	48.25679555 Lor	ng: -101.23	53945 Datum: NAD83
Soil Map Unit Name: Hamlet-Souris-Tonka co	omplex, 0-3% slop	DES NWI classif	ication: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes No _X	_ (If no, explain in	Remarks.)
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} signification	antly disturbed? Are "Norm	nal Circumstances"	present? Yes X No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	y problematic? (If needed	, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locat	ions, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	<i></i>
2				(excluding FAC-):	(A)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)
1					
2				Prevalence Index worksheet:	
3				Total % Cover of:Multiply by:	-
4.				OBL species x 1 =	_
5.				FACW species x 2 =	-
		= Total Cov	/er	FAC species x 3 =	_
Herb Stratum (Plot size: 5)				FACU species x 4 =	_
_{1.} Brassica rapa	55	Y	UPL	UPL species x 5 =	_
2.				Column Totals: (A)	(B)
3.					
4				Prevalence Index = B/A =	_
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
/				3 - Prevalence Index is $\leq 3.0^1$	
8				4 - Morphological Adaptations ¹ (Provide supp	orting
9				data in Remarks or on a separate sheet)	•
10				<u>X</u> Problematic Hydrophytic Vegetation ¹ (Explain	ר)
	55	= Total Cov	ver	¹ Indiantara of hydria apil and watland hydrology m	unt
woody vine Stratum (Plot size:)				be present, unless disturbed or problematic.	lusi
1					
2				Hydrophytic	
% Pare Ground in Horb Stratum 45	. <u> </u>	= Total Cov	ver	Present? Yes X No	
itemano.					

Profile Desc	ription: (Describe	to the depth	need	d to docu	ment the i	ndicator	or confirm	the absence o	of indicators.)		
Depth	Matrix			Redo	ox Features	s					
(inches)	Color (moist)	%	Colo	<u>(moist)</u>	%	Type	Loc ²	Texture	Remarks		
0-6	<u>10YR 2/1</u>	100 _						<u>loam</u>			
6-12	10YR 3/1	95	5R	4/6	5	С	М	loam			
12-18	10YR 4/2	95	5R	4/6	5	С	М	loam			
			~ -	-, -							
<u> </u>											
		lotion BM-B	duco	d Matrix C		d or Coate	d Sand Cr	21 000	ation: DI-Doro Lining M-Matrix		
Hvdric Soil I	ndicators: (Applic	able to all LR	Rs. u	nless othe	rwise not	ed.)	u Sanu Gi	Indicators f	or Problematic Hydric Soils ³ :		
Histosol	(A1)		,.	Sandy	Gleved Ma	atrix (S4)		1 cm Mi	uck (A9) (LRR L J)		
Histic Ep	ipedon (A2)		-	Sandy	Redox (S5))		Coast P	Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		-	Strippe	d Matrix (S	, 6)		Dark Su	Irface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		-	Loamy	Mucky Mir	neral (F1)		High Pla	ains Depressions (F16)		
Stratified	Layers (A5) (LRR F)	-	Loamy	Gleyed Ma	atrix (F2)		(LRF	R H outside of MLRA 72 & 73)		
1 cm Mu	ck (A9) (LRR F, G, I	H)	-	Deplete	ed Matrix (I	F3)		Reduce	d Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	-	<u>~</u> Redox	Dark Surfa	ice (F6)		Red Parent Material (TF2)			
I NICK Da	rk Surface (A12)		-	Deplete	Doprocoio			Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
3anuy M	lucky Milleral (ST)	S2) (I RR G I		High Pl	ains Denre	ns (ro) essions (F	16)	³ Indicators of hydrophytic vegetation and			
<u> </u>	cky Peat or Peat (S	3) (LRR F)	•) -	(ML	-RA 72 & 7	73 of LRR	H)	wetland hydrology must be present			
		, (,		(unless disturbed or problematic.			
Restrictive L	ayer (if present):								·		
Туре:			_								
Depth (inc	:hes):							Hydric Soil F	Present? Yes <u>X</u> No		
Remarks:								_			
HYDROLO	GY										
Wetland Hyd	Irology Indicators:										
Primary Indic	ators (minimum of o	ne required; c	heck	all that app	ly)			<u>Secondar</u>	y Indicators (minimum of two required)		
Surface	Water (A1)			Salt Crust	t (B11)			Surfa	ce Soil Cracks (B6)		
High Wa	ter Table (A2)			Aquatic In	vertebrate	s (B13)		Spars	sely Vegetated Concave Surface (B8)		
Saturatio	n (A3)			Hydrogen	Sulfide Od	dor (C1)		Drain	age Patterns (B10)		
Water Mater M	arks (B1)			Dry-Seaso	on Water T	able (C2)		Oxidi	zed Rhizospheres on Living Roots (C3)		
Sedimen	t Deposits (B2)			Oxidized I	Rhizosphe	res on Liv	ing Roots ((C3) (wh	nere tilled)		

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check	Secondary Indicators (minimum of two required)	
Surface Water (A1)	_ Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	_ Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)	Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living I	Roots (C3) (where tilled)
Drift Deposits (B3)	(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	_ Thin Muck Surface (C7)	X Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:		
Surface Water Present? Yes No X	Depth (inches):	
Water Table Present? Yes No X	Depth (inches):	
Saturation Present? Yes No _X_ (includes capillary fringe)	Depth (inches):	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspec	ions), if available:
Remarks:		

Project/Site: <u>PORT OF ND - CRISI GRANT</u> City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>						
Applicant/Owner: <u>PORT OF ND</u> State: <u>ND</u> Sampling Point: <u>27U</u>						
Investigator(s): KEVIN PLOOF Section, Township, Range: 8, 155, 82						
Landform (hillslope, terrace, etc.): _edge of basin Local relief (concave, convex, none): none Slope (%): _0-1						
Subregion (LRR): F Lat: _48.25698212Long:101.2331707Datum:NAD83						
Soil Map Unit Name: Hamlet-Souris-Tonka complex, 0-3% slopes NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)						
Are Vegetation _ Y _ , Soil _ N _ , or Hydrology _ N _ significantly disturbed? Are "Normal Circumstances" present? Yes _ X _ No						
Are Vegetation $_\mathrm{N}$, Soil $_\mathrm{N}$, or Hydrology $_\mathrm{N}$ 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 No X						
Hydric Soil Present? Yes No X I within a Wetland? Yes No X						
Wetland Hydrology Present? Yes No _X						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL FACW or FAC
2		·		$(\text{excluding FAC-}): \qquad \qquad$
2		·		
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	rer	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1			. <u> </u>	
2.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
		·		OBL species x 1 =
4		·		FACW species x 2 =
5				
5		= Total Cov	rer	
Herb Stratum (Plot size:)				FACU species x 4 =
_{1.} Brassica rapa	55	<u>Y</u>	FACU	UPL species x 5 =
2				Column Totals: (A) (B)
3.				
4				Prevalence Index = B/A =
F.				Hydrophytic Vegetation Indicators:
5		· <u> </u>	·······	1 - Rapid Test for Hydrophytic Vegetation
6		· <u> </u>	<u> </u>	2 - Dominance Test is >50%
7		·		$3 - \text{Prevalence Index is } \leq 30^{1}$
8				Marphalagiael Adaptations ¹ (Dravide supportion
9				4 - Morphological Adaptations (Provide Supporting
10.				Draklametia Undrankutia Vagatatian ¹ (Evrelain)
	55	- Total Cov	or	
Woody Vine Stratum (Plot size:)		- 10181 001		¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
··		·		
2		·		Hydrophytic
% Data Ground in Llash Stratum 45	55	= Total Cov	rer	Present? Yes No X
Remarks:				

Profile Des	cription: (Describe	to the de	oth need	ed to docu	ment the	indicator	or confir	m the absence of indicators.)		
Depth	Matrix			Red	ox Feature	s	0	_		
(inches)	Color (moist)	%	Colo	r (moist)	%	Type'	Loc ²	Texture Remar	KS	
0-6	10YR 2/1	100					·	CL		
6-9	10YR 3/1	100						CL		
9-18	10YR 4/3	95	5R 4	/6	5	С	М	CL		
	·						·			
							·			
							·			
¹ Type: C=C	Concentration. D=De	pletion. RM	- I=Reduce	d Matrix. C	 S=Covere	d or Coat	ed Sand G	Grains. ² Location: PL=Pore Lining	a. M=Matrix.	
Hydric Soil	Indicators: (Appli	cable to al	LRRs, u	inless othe	erwise not	ed.)		Indicators for Problematic Hyd	ric Soils ³ :	
Histoso	l (A1)			Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic E	pipedon (A2)			Sandy	Redox (St	5)		Coast Prairie Redox (A16) (I	.RR F, G, H)	
Black H	listic (A3)			Strippe	ed Matrix (S6)		Dark Surface (S7) (LRR G)		
Hydrog	en Sulfide (A4)			Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratifie	d Layers (A5) (LRR	F)		Loamy	Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm M	uck (A9) (LRR F, G,	H)		Deplet	ed Matrix (F3)		Reduced Vertic (F18)		
Deplete	ed Below Dark Surface	ce (A11)		Redox	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick D	ark Surface (A12)			Deplet	ed Dark Si	urface (F7)	Very Shallow Dark Surface (TF12)		
Sandy I	Mucky Mineral (S1)		c II)	Redox	Depressio	ns (F8)	10)	Other (Explain in Remarks)		
2.5 cm	whicky Peat of Peat	(52) (LRR	G, н)	H) High Plains Depressions (F16)				indicators of hydrophytic vegeta	tion and	
	ucky real of real (3	55) (LKK F)				хп)	unless disturbed or problem:	atic	
Restrictive	Laver (if present):									
Type:	, , , , , , , , , , , , , , , , , , ,									
Depth (ir	nches):							Hydric Soil Present? Yes	No X	
Remarks:										
rtemanto.										
HYDROLC	DGY									

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	g Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date: <u>11/05/21</u>		
Applicant/Owner: PORT OF ND			State: ND	Sampling Point: 27W		
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Towr	nship, Range: _	8, 155, 8	32		
Landform (hillslope, terrace, etc.): basin	_ Local relief (c	oncave, conve	k, none): <u>CON</u>	Slope (%): 0-2		
Subregion (LRR):F Lat: _4	8.256839	97 Long	g:	30372 Datum: NAD83		
Soil Map Unit Name: Hamlet-Souris-Tonka com	plex, 0-	-3% slop	es NWI classific	cation: PEM1C		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)						
Are Vegetation $\underline{Y}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significantl	y disturbed?	Are "Norma	al Circumstances" p	present? Yes X No		
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally p	roblematic?	(If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes X No						
Hydric Soil Present? Yes X No	IS the	Sampled Area	Voc X	No		
Wetland Hydrology Present? Yes X No	- WILLING		Tes	NO		

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2				(excluding FAC-):	(A)
3.				Total Number of Dominant	
4.				Species Across All Strata:	(B)
		= Total Cov	/er	Demonstrat Deminant Creation	
Sapling/Shrub Stratum (Plot size:)			0.	That Are OBL_EACW_or EAC'	(A/B)
1					. (/
2.				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	
A.				OBL species x 1 =	
T				FACW species x 2 =	
5		- Total Car		FAC species x 3 =	
Herb Stratum (Plot size: 5)			/er	FACU species x 4 =	
1 Brassica rapa	55	Y	UPL	UPL species x 5 =	
2				Column Totals: (A)	(B)
2					(D)
S				Prevalence Index = B/A =	
4				Hydrophytic Vegetation Indicators:	
5				1 - Rapid Test for Hydrophytic Vegetation	
6				2 - Dominance Test is >50%	
7				3 - Prevalence Index is < 3.01	
8				4 - Morphological Adaptations ¹ (Provide su	oporting
9				data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Expla	ain)
	55	= Total Cov	ver		,
Woody Vine Stratum (Plot size:)				'Indicators of hydric soil and wetland hydrology	must
1					
2				Hydrophytic	
4 5		= Total Cov	ver	Vegetation Present? Yes X No	
% Bare Ground in Herb Stratum 45				Present? fes <u>1</u> No	
Remarks: farmed wetland	f				
US Army Corps of Engineers				Great Plains – Vers	ion 2.0

Profile Desc	ription: (Describe	to the depth	neede	d to docur	nent the i	ndicator	or confirm	m the absence	of indicators.)
Depth	Matrix	-		Redo	x Features	S			
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	<u>10YR 2/1</u>	100						<u>loam</u>	
6-12	10YR 3/1	95	5R	4/6	5	С	М	loam	
12-18	10YR 4/2	95	5R	4/6	5	С	М	loam	
¹ Type: C=Co	oncentration, D=Dep	etion, RM=R	educe	d Matrix, CS	S=Covered	d or Coate	d Sand G	Frains. ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil I Histosol Histic Ep Black His Hydrogel Stratified 1 cm Mu Depleted Thick Da Sandy M 2.5 cm Mu	ndicators: (Applica (A1) ipedon (A2) stic (A3) n Sulfide (A4) I Layers (A5) (LRR F ck (A9) (LRR F, G, H I Below Dark Surface Irk Surface (A12) lucky Mineral (S1) Mucky Peat or Peat (S3)	able to all Ll ∃) ≥ (A11) 62) (LRR G, 3) (LRR F)	RRs, u - - - - - - - - - H) _	nless other Sandy (Sandy F Stripped Loamy (Deplete X Redox I Redox I High Pla (ML	rwise note Gleyed Ma Redox (S5 d Matrix (S Mucky Mir Gleyed Ma d Matrix (I Dark Surfa d Dark Surfa d Dark Surfa d Dark Surfa ains Depre RA 72 & 7	ed.) httrix (S4)) 66) heral (F1) atrix (F2) ⁷³ hce (F6) rface (F7) hs (F8) essions (F 73 of LRR	16) H)	Indicators 1 cm M Coast I Dark S High P (LR Reduce Red Pa Very S Other (³ Indicators wetlanc unless	for Problematic Hydric Soils": Auck (A9) (LRR I, J) Prairie Redox (A16) (LRR F, G, H) urface (S7) (LRR G) lains Depressions (F16) R H outside of MLRA 72 & 73) ed Vertic (F18) arent Material (TF2) hallow Dark Surface (TF12) (Explain in Remarks) of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.
Restrictive L	ayer (if present):								
Туре:									
Depth (inc	ches):							Hydric Soil	Present? Yes <u>×</u> No
Remarks:	GY								
Wetland Hyd	rology Indicators:								
Primary Indic Surface V High Wa' Saturatio Water Mater Mat	<u>ators (minimum of o</u> Water (A1) ter Table (A2) on (A3) arks (B1)	ne required;	<u>check</u>	all that appl Salt Crust Aquatic In Hydrogen Dry-Seasc	<u>y)</u> (B11) vertebrate Sulfide Oo on Water T	s (B13) dor (C1) ⁻ able (C2)		<u>Seconda</u> Surf: Spai Drain Oxid	ry Indicators (minimum of two required) ace Soil Cracks (B6) rsely Vegetated Concave Surface (B8) nage Patterns (B10) lized Rhizospheres on Living Roots (C3)
Sedimen	t Deposits (B2)			Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (w	here tilled)
Drift Dep	osits (B3)			(where I	not tilled)			Cray	/fish Burrows (C8)
Algal Ma	t or Crust (B4)			Presence	of Reduce	d Iron (C4)	Satu	Iration Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)			Thin Muck	Surface (C7)		Geo	morphic Position (D2)
Water-St	ained Leaves (B9)	magery (B7)		Other (Exp	plain in Re	marks)		FAC Fros	-Neutral Test (D5) it-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves (I	B9)	Frost-Heave Hummocks (D7) (LRR F)				
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 (str	ream gauge, monitoring we	ell, aerial photos, previous inspec	tions), if available:			
Remarks:						

Project/Site: PORT OF ND - CRISI GRANT City/Co	ounty: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>					
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>28U</u>					
Investigator(s): KEVIN PLOOF Sectio	n, Township, Range: <u>8</u> , 155, 82					
Landform (hillslope, terrace, etc.): edge of basin Local	relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>					
Subregion (LRR): F Lat: _48.25	780995 Long: -101.2346882 Datum: NAD83					
Soil Map Unit Name: Hamlet-Souris-Tonka complex, 0-3% slopes NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)						
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significantly disturb	ed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ naturally problema	tic? (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 No X						
Hydric Soil Present? Yes NoX	Is the Sampled Area					
Wetland Hydrology Present? Yes NoX						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Descinent Operator	
1				Number of Dominant Species	
·				(excluding FAC) (A	4)
2				(choice and g :) (c)	•)
3				Total Number of Dominant	
4.				Species Across All Strata: (B	;)
		= Total Cov	/or	Demonst of Demois and One size	
Sapling/Shrub Stratum (Plot size:)		- 10101 001		That Are OBL EACIAL or EAC:	
1					<i>1</i> D)
1				Prevalence Index worksheet:	
2			·	Total % Cover of: Multiply by:	
3					
4					
5.				FACW species x 2 =	
		- Total Cov		FAC species x 3 =	
Herb Stratum (Plot size: 5)		- 10(a) 001		FACU species x 4 =	
A Brassica rapa	55	v	FACII	LIPL species x 5 =	
			11100		
2					В)
3			<u> </u>	Dravelence Index - D/A -	
4					
5.				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
				2 - Dominance Test is >50%	
1			·	3 - Prevalence Index is $\leq 3.0^{1}$	
8				A Merphological Adaptations ¹ (Provide support	tina
9				data in Remarks or on a senarate sheet)	ung
10.					
	55	- Total Ca	or		
Woody Vine Stratum (Plot size:		- 10181 001		¹ Indicators of hydric soil and wetland hydrology must	st
1				be present, unless disturbed or problematic.	-
·					
2				Hydrophytic	
45	55	= Total Cov	ver	Vegetation Present? Ves No X	
% Bare Ground in Herb Stratum					
Remarks:					

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the	indicator	or confirm	n the absence of ind	icators.)			
Depth	Matrix		Redo	x Feature	es						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-6	10YR 2/1	100					<u>CL</u>				
6-12	10YR 3/2	100					CL				
12-18	10YR 4/3	95	5R 4/6	5	С	М	CL				
							<u></u>				
		·		<u> </u>							
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	educed Matrix, CS	S=Covere	ed or Coate	d Sand G	rains. ² Location:	PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Application)	able to all Ll	RRs, unless othe	rwise no	ted.)		Indicators for Pr	oblematic Hydric Soils [°] :			
Histosol	(A1)		Sandy (Gleyed M	atrix (S4)		1 cm Muck (A	A9) (LRR I, J)			
Histic Ep	bipedon (A2)		Sandy I	Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)				
Black Hi	stic (A3)		Strippe	d Matrix (S6)		Dark Surface (S7) (LRR G)				
Hydroge	en Sulfide (A4)		Loamy	Mucky M	ineral (F1)		High Plains L	Depressions (F16)			
Stratified	d Layers (A5) (LRR F	•)	Loamy	Gleyed N	latrix (F2)		(LRR H outside of MLRA 72 & 73)				
1 cm Mu	ICK (A9) (LRR F, G, I	1) - (A44)	Deplete	d Matrix	(F3)		Reduced Vertic (F18)				
	d Below Dark Surface	e (A11)	Redox I	Jark Surf			Red Parent Material (TF2)				
	ark Surface (A12)		Deplete	d Dark S			Very Shallow Dark Surface (TF12)				
	Aucky Mineral (ST)		Redox I		DNS (F8)	10)	Other (Explai	n in Remarks)			
2.5 cm M	NUCKY Peat of Peat ((LRR G,	High Pi			16)	indicators of hydro	rophytic vegetation and			
	icky Peat of Peat (53	5) (LKK F)	(IVIL	RA / 2 &	13 OF LRR	H)	wetiand hydro	biogy must be present,			
Restrictive I	Layer (if present):										
Туре:											
Depth (ind	ches):						Hydric Soil Prese	nt? Yes <u>No X</u>			
Remarks:											
HYDROLO	GY										
Wotland Hy	drology Indicators										

wetland Hydrology Indicat	ors:				
Primary Indicators (minimum	of one required; check all the	Secondary Indicators (minimum of two required)			
Surface Water (A1)	Sa	lt Crust (B11)		Surface Soil Cracks (B6)	
High Water Table (A2)	Aq	uatic Invertebrates (B13)		Sparsely Vegetated Concave Surface (B8)	
Saturation (A3)	Ну	Drainage Patterns (B10)			
Water Marks (B1)	Dr	Oxidized Rhizospheres on Living Roots (C3)			
Sediment Deposits (B2)	Ox	kidized Rhizospheres on Living F	Roots (C3)	(where tilled)	
Drift Deposits (B3)	(where not tilled)		Crayfish Burrows (C8)	
Algal Mat or Crust (B4)	Pro	esence of Reduced Iron (C4)		Saturation Visible on Aerial Imagery (C9)	
Iron Deposits (B5) Thin Muck Surface (C7)				Geomorphic Position (D2)	
Inundation Visible on Ae	rial Imagery (B7) Ot	her (Explain in Remarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (39)			Frost-Heave Hummocks (D7) (LRR F)	
Field Observations:					
Surface Water Present?	Yes No _X D	epth (inches):			
Water Table Present?	Yes No _X_ D	epth (inches):			
Saturation Present? (includes capillary fringe)	Yes <u>No X</u> D	epth (inches):	Wetland I	Hydrology Present? Yes NoX	
Describe Recorded Data (str	eam gauge, monitoring well	, aerial photos, previous inspect	ions), if ava	ailable:	
Remarks:					

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/05/21						
Applicant/Owner: PORT OF ND	State: ND Sampling Point: 28W						
Investigator(s): KEVIN_PLOOF	Section, Township, Range: 8, 155, 82						
Landform (hillslope, terrace, etc.): basin	_ Local relief (concave, convex, none):CONCAVE Slope (%): 0-2						
Subregion (LRR): F Lat:4	8.25769256 Long: -101.2348413 Datum: NAD83						
Soil Map Unit Name: Hamlet-Souris-Tonka com	plex, 0-3% slopes NWI classification: <u>PEM1C</u>						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No $\frac{X}{2}$ (If no, explain in Remarks.)							
Are Vegetation $\underline{Y}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significantly	y disturbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally pr	roblematic? (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							
Hydric Soil Present? Yes X No	is the Sampled Area						
Wetland Hydrology Present? Yes X No							

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2				
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet
2				Total % Cover of: Multiply by
3				OBL species x 1 =
4				
5				
		= Total Co	ver	
Brassica rapa	55	Y	UPL	
1				OPL species x 5 = Column Totalou (A)
2				
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				$3 - Prevalence Index is \leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plat size)	55	= Total Cov	ver	¹ Indicators of hydric soil and wotland hydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 45		= Total Co	ver	Present? Yes X No
Remarks: farmed wetland				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			Redo	x Feature	s ,				
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks	
6	<u>10YR 2/1</u>	100						<u>loam</u>		
6-12	10YR 3/1	95	5R	4/6	5	С	М	loam		
12-18	10YR 4/2	95	5R	4/6	5	C	М	loam		
	·					·				
						·		<u> </u>		
						·		<u> </u>		
¹ Type: C=Co	ncentration. D=Dep	letion. RM=Re	duce	d Matrix. C	S=Covered	d or Coate	d Sand G	ains. ² Location: PL	=Pore Lining, M=Matrix,	
Hydric Soil I	ndicators: (Applic	able to all LRI	Rs, u	nless othe	rwise not	ed.)		Indicators for Probl	ematic Hydric Soils ³ :	
Histosol	(A1)		_	Sandy (Gleyed Ma	atrix (S4)		1 cm Muck (A9)	(LRR I, J)	
Histic Ep	ipedon (A2)		_	Sandy I	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		_	Stripped	d Matrix (S	66)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		_	Loamy	Mucky Mir	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	F)	_	Loamy	Gleyed Ma	atrix (F2)		(LRR H outs	ide of MLRA 72 & 73)	
1 cm Mu	ck (A9) (LRR F, G, I	H)	-	Deplete	ed Matrix (I	F3)		Reduced Vertic	(F18)	
Depleted	Below Dark Surface	e (A11)	-	Redox	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Dark Surface (A12) Depleted Dark Surface (F7)				Very Shallow Da	Very Shallow Dark Surface (TF12)					
Sandy M	ucky Mineral (S1)		. –	Redox I	Depressio	ns (F8)	()	Other (Explain in Remarks)		
2.5 cm N	lucky Peat or Peat (S2) (LRR G, H) _	High Pla	ains Depre	essions (F	16)	indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (St	3) (LRR F)		(ML	.RA /2 & /	/3 of LRR	(H)	wetland hydrology must be present,		
Restrictive I	aver (if present):								or problematic.	
Type [.]	ayer (il present).									
Depth (inc	hes) [.]		_					Hydric Soil Present?	Yes X No	
Remarks:			_							
rtemarto.										
HYDROLO	GY									
Wetland Hyd	Irology Indicators:									
Primary Indic	ators (minimum of o	one required; ch	neck a	all that appl	y)			Secondary Indicat	ors (minimum of two required)	
Surface	Water (A1)			Salt Crust	(B11)			Surface Soil C	Cracks (B6)	
High Wa	ter Table (A2)			Aquatic In	vertebrate	es (B13)		Sparsely Veg	etated Concave Surface (B8)	
Saturation (A3) Hvdroden S		Sulfide O	dor (C1)		Drainage Patterns (B10)					
Water M	arks (B1)			Dry-Seaso	on Water T	Table (C2)		Oxidized Rhiz	ospheres on Living Roots (C3)	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled)							d)			

- Crayfish Burrows (C8) X Saturation Visible on Aerial Imagery (C9) X Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:							
Surface Water Present?	Yes	NoX	Depth (inches):				
Water Table Present?	Yes	No	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes	NoX	Depth (inches):		Wetland Hydrology Present?	Yes <u>X</u> No	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

(where not tilled)

Thin Muck Surface (C7)

___ Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Drift Deposits (B3)

Iron Deposits (B5)

____ Algal Mat or Crust (B4)

Inundation Visible on Aerial Imagery (B7)

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date: 11/05/21					
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>23U</u>					
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: 8, 155, 82					
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>					
Subregion (LRR): F Lat: 4	8.25643642 Long: -101.239138 Datum: NAD83					
Soil Map Unit Name: Hamlet-Souris-Tonka com	plex, 0-3% slopes_NWI classification:_N/A					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _X (If no, explain in Remarks.)						
Are Vegetation $\underline{Y}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ significantly	y disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally pr	roblematic? (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 No	Is the Sampled Area					
Wetland Hydrology Present? Yes No _X	within a Wetland? Yes <u>No X</u>					

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
2.				(excluding FAC-):	(A)
3.				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	/er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)
2				Prevalence Index worksheet:	
3		·		Total % Cover of: Multiply by:	_
4	·	·		OBL species x 1 =	
5	·	·		FACW species x 2 =	
_		= Total Cov	/er	FAC species x 3 =	
Herb Stratum (Plot size: 5)				FACU species x 4 =	
1. <u>Brassica rapa</u>	55	Y	FACU	UPL species x 5 =	
2				Column Totals: (A)	(B)
3				Prevalence index = B/A =	
4	·			Hydrophytic Vegetation Indicators:	-
5				1 - Rapid Test for Hydrophytic Vegetation	
6				2 - Dominance Test is >50%	
7	·	·		$3 - Prevalence Index is \leq 3.0^1$	
8				4 - Morphological Adaptations ¹ (Provide suppo	orting
9	·	·		data in Remarks or on a separate sheet)	•
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)		= Total Cov	/er	¹ Indicators of hydric soil and wetland hydrology mu	ust
1				be present, unless disturbed or problematic.	
2				Hydrophytic	
% Bare Ground in Herb Stratum $_45$	55	= Total Cov	/er	Vegetation Present? Yes <u>No X</u>	
Remarks: harvested canola field					

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	n the absence of indica	ators.)	
Depth	Matrix		Red	ox Feature	es1	. 2	- (
(incnes)	10000 (moist)	100	Color (moist)	%	Type	LOC		Remarks	
0-6	10YR 2/1	100							
6-12	10YR 3/1	100					<u>CL</u>		
12-18	10YR 4/3		R 4/6	5	C	M	S1L		
					_				
						. <u> </u>	·		
							·		
<u> </u>									
¹ Type: C=Co	oncentration, D=Depl	letion, RM=Re	duced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location: P	L=Pore Lining, M=Matrix.	
Hydric Soil I	indicators: (Applica	able to all LR	Rs, unless othe	erwise no	ted.)		Indicators for Prob	Diematic Hydric Solls":	
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Black Hi	stic (A3)		Sanuy	Redux (S: d Matrix (5) S6)		Dark Surface (S7) (I BP C)		
	n Sulfide ($\Delta 4$)			Mucky Mi	ineral (F1)		High Plains Depressions (E16)		
Stratified	l avers (A5) (LRR F	;)	Loamy	Gleved M	latrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, H	/ H)	Deplete	ed Matrix	(F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	é (A11)	Redox	Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)	()	Deplete	ed Dark S	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	lucky Peat or Peat (S2) (LRR G, H	I) High P	lains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (S3	8) (LRR F)	(M I	(MLRA 72 & 73 of LRR H)			wetland hydrology must be present,		
							unless disturbe	d or problematic.	
Restrictive L	_ayer (if present):								
Туре:			_						
Depth (inc	ches):		_				Hydric Soil Present	? Yes <u>No X</u>	
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indica	tors:		
Primary Indicators (minimun	n of one required; c	Secondary Indicators (minimum of two required)	
Surface Water (A1)		Surface Soil Cracks (B6)	
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2))	Oxidized Rhizospheres on Living	ng Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on A	erial Imagery (B7)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
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 NoX
Describe Recorded Data (st	ream gauge, monito	oring well, aerial photos, previous inspe	ections), if available:
Remarks:			
1			

Profile Desc	ription: (Describe	to the depth	needed to doc	ument the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix		Re	dox Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 2/1	100 _							
6-12	10YR 3/1	100					CL		
12-18	10YR 4/3	95	5R 4/6	5	C	М	SiL		
							· · · · · · · · _ · · _ /		
							· ·		
·							·		
							·		
¹ Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix,	CS=Covere	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	able to all LF	RRs, unless oth	erwise not	ted.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sand	y Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)		Sand	y Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Stripp	ed Matrix (S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loam	y Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	;)	Loam	y Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, F	H)	Deple	ted Matrix ((F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redo	x Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deple	ted Dark Si	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redo	x Depressic	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	Aucky Peat or Peat (S2) (LRR G,	H) High	Plains Depr	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	8) (LRR F)	(MLRA 72 & 73 of LRR H)				wetland hydrology must be present,		
Bootrictivo I	aver (if present);						unless disturbed or problematic.		
Turner	Layer (il present).								
Donth (in							Hudria Sail Present? Vac. No. 3	7	
Depth (ind	cnes):						Hydric Soli Present? Yes No _2	<u> </u>	
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Pamarks [,]	

City/County: MINOT	WARD	Sampling Date: <u>11/05/21</u>				
	State: ND	Sampling Point: 24U				
Section, Township, Range: _	8, 155, 8	32				
Local relief (concave, conve	x, none): <u>non</u>	Le Slope (%): 0-1				
8.25682033 Long	g: <u>-101.237</u>	4105 Datum: NAD83				
plex, 0-3% slop	es NWI classific	cation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No X (If no, explain in Remarks.)						
disturbed? Are "Norm	al Circumstances" p	present? Yes \underline{X} No				
oblematic? (If needed,	explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Is the Sampled Area	Yee	No X				
within a Wetlanu?	res	NO				
	City/County: <u>MINOT</u> Section, Township, Range:Local relief (concave, conver 8.25682033 Long plex, 0-3% slop ear? YesNo _X / disturbed? Are "Normation oblematic? (If needed, g sampling point location Is the Sampled Arean within a Wetland?	City/County: MINOT WARD State: ND Section, Township, Range: 8, 155, 8 Local relief (concave, convex, none): non 8.25682033 Long: -101.237 plex, 0-3% slopes NWI classific ear? Yes No X (If no, explain in R // disturbed? Are "Normal Circumstances" p oblematic? (If needed, explain any answer g sampling point locations, transects Is the Sampled Area Yes				

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC
2		. <u> </u>		
3				Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3		. <u> </u>		
4			<u> </u>	
5				FACVV species x 2 =
5		= Total Cov	ver	FAC species x 3 =
Herb Stratum (Plot size:)				FACU species x 4 =
1. <u>Brassica rapa</u>	55	<u>Y</u>	FACU	UPL species x 5 =
2				Column Totals: (A) (B)
3				Provalence Index - R/A -
4				Hudrophytic Vesetation Indicators
5				A David Test for Undershutin Venetation
6				
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.0'
9				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
10		·	<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)
	55	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Bare Ground in Herb Stratum <u>45</u>	55	= Total Cov	ver	Present? Yes <u>No X</u>
Remarks: harvested canola field				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	ox Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 2/1	100 _					<u>CL</u>		
6-12	10YR 3/1	100					CL		
12-18	10YR 4/3	95 !	5R 4/6	5	С	М	SiL		
					·				
					·				
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	educed Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Application)	able to all LF	RRs, unless othe	rwise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)		Sandy	Redox (S	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	-)	Loamy	Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, H	I)	Deplete	ed Matrix (F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redox	Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deplete	ed Dark Su	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox	Depressic	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	Aucky Peat or Peat (S2) (LRR G,	H) High Pl	ains Depr	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	3) (LRR F)	(MLRA 72 & 73 of LRR H)				wetland hydrology must be present,		
Restrictive I	aver (if present):								
Type [.]	Layer (il present).								
Depth (inc	ches):		_				Hydric Soil Present? Yes No X		
Pomarke:									
Remarks.									
HYDROLO	GY								

Wetland Hydrology Indica	tors:		
Primary Indicators (minimun	of one required;	Secondary Indicators (minimum of two required)	
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)		Dry-Season Water Table (C2)	 Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)		Oxidized Rhizospheres on Living	Roots (C3) (where tilled)
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)		Geomorphic Position (D2)	
Inundation Visible on A	erial Imagery (B7)	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)
Field Observations:			
Surface Water Present?	Yes No	DX Depth (inches):	
Water Table Present?	Yes No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland Hydrology Present? Yes No _X
Describe Recorded Data (st	ream gauge, mon	itoring well, aerial photos, previous inspec	tions), if available:
Remarks:			

Project/Site: PORT OF ND - CRISI GRANT	City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>				
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>25U</u>				
Investigator(s): KEVIN PLOOF	Section, Township, Range: <u>8, 155, 82</u>				
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u>none</u> Slope (%): <u>0-1</u>				
Subregion (LRR): F La	t: 48.2594805 Long: -101.237829 Datum: NAD83				
Soil Map Unit Name: Hamlet-Souris-Tonka c	complex, 0-3% slopes_NWI classification:_N/A				
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes No \underline{X} (If no, explain in Remarks.)				
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signific	cantly disturbed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ natura	ally 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 No	X Is the Sampled Area				

Hydric Soil Present? Wetland Hydrology Present?	Yes No <u>X</u> Yes No <u>X</u>	within a Wetland?	Yes NoX
Remarks: mostly dry in	the preceding wee	eks	

Tree Stratum (Plot size:) <u>% Cover</u> Species? Status Number of Dominant Species 1 That Are OBL EACW or EAC	
1 That Are OBL EACW or EAC	
2 (excluding FAC-): (A	A)
3 Total Number of Dominant	
4. Species Across All Strata: (B))
= Total Cover Percept of Deminant Species	
Sapling/Shrub Stratum (Plot size:) That Are OBL, FACW, or FAC: 0	/B)
1	,
2 Prevalence Index worksheet:	
3. Total % Cover of: Multiply by:	
4 OBL species x 1 =	
FACW species x 2 =	
FAC species x 3 =	
Herb Stratum (Plot size: 5) FACU species x 4 =	
1 Brassica rapa 55 Y FACU UPL species x5=	
2 Column Totals: (A) (I	B)
	2)
S. Prevalence Index = B/A =	
4 Hydrophytic Vegetation Indicators:	
5	
6	
7	
8 0 - 1 revelence index is ±0.0	tina
9 4 - Morphological Adaptations (Provide support data in Remarks or on a separate sheet)	ung
10 Problematic Hydrophytic Vegetation ¹ (Explain)	
55 = Total Cover	
Woody Vine Stratum (Plot size:)	t
2 Hydrophytic	
<u>55</u> = Total Cover Vegetation	
% Bare Ground in Herb Stratum 45 No A	
Remarks: harvested canola field	

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Rede	ox Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 2/1	100					CL		
6-12	10YR 3/1	100					CL		
12-18	10YR 4/3	95 5	R 4/6	5	С	М	SiL		
							· ·		
							· · · · · · · · · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ ·	—	
·							· ·		
							· ·		
¹ Type: C=Co	oncentration, D=Depl	letion, RM=Re	educed Matrix, C	S=Covere	d or Coate	d Sand G	Brains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soli I	indicators: (Applica	adie to all LR	Rs, unless othe	erwise not	(ea.)		Indicators for Problematic Hydric Solis :		
Histosol	(A1)		Sandy Gleyed Matrix (S4)				1 cm Muck (A9) (LRR I, J)		
Histic Ep	Dipedon (A2)		Sandy Redox (S5)				$_$ Coast Prairie Redox (A16) (LRR F, G, H)		
Black Histic (A3)			Stripped Matrix (S6)				Dark Surrace (S7) (LRR G)		
Hydrogen Sulfide (A4)			Loamy	MUCKY MI	neral (F1)		High Plains Depressions (F16)		
Stratified Layers (A5) (LRR F)			Loamy	Gleyed M	atrix (F2)		(LRR H OUTSIDE OF MLRA /2 & /3) Reduced Vertic (E19)		
	ICK (A9) (LRR F, G, F	1)		ed Matrix ((F3)				
	Below Dark Surface	e (A11)	Redox	Dark Sun					
	ark Surface (A12)		Deplete	ed Dark Si	urface (F7)		Very Shallow Dark Surface (TF12)		
	lucky Mineral (ST)			Depressio	ns (F8)	10)	³ Indicators of hydrophytic vogetation and		
2.5 cm N	Nucky Peat of Peat (52) (LRR G, F) High Plains Depressions (F16)				indicators of hydrophytic vegetation and		
5 cm wu	icky Peat of Peat (53	5) (LKK F)	(MLRA /2 & /3 of LRR H)				wettand hydrology must be present,		
Restrictive L	_aver (if present):								
Type:	, , , , , , , , , , , , , , , , , , ,								
Depth (inches):			_				Hydric Soil Present? Yes No _X		
Remarks									
HYDROLO	GY								

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)				
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:					
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No _X Depth (inches):					
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _X				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Pamarks [,]					

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date: 1	1/05/21
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	26U
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Tow	nship, Range: _	8, 155, 8	2	
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex	k, none): <u>non</u>	.e Slope	e (%): <u>0-1</u>
Subregion (LRR): F Lat:	48.25890	012 Long	<u>-101.236</u>	4829 Datum	NAD83
Soil Map Unit Name: Hamlet-Souris-Tonka co	omplex, 0	-3% slop	es NWI classific	ation: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	NoX	(If no, explain in R	emarks.)	
Are Vegetation Y, Soil N, or Hydrology N signification	antly disturbed?	Are "Norma	al Circumstances" p	oresent? Yes X	No
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} natural	ly problematic?	(If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes NoX Hydric Soil Present? Yes NoX	ls the withir	Sampled Area	Yes	No X	
Wetland Hydrology Present? Yes <u>Yes</u> No X	· .				

Remarks: mostly dry in the preceding weeks

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Re	dox Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 2/1	100 _							
6-12	10YR 3/1	100					CL		
12-18	10YR 4/3	95	5R 4/6	5	C	М	SiL		
							· · · · · · · · _ · · _ /		
							· ·		
·				·			·		
							·		
¹ Type: C=Co	oncentration, D=Depl	etion, RM=R	educed Matrix,	CS=Covere	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	able to all LF	RRs, unless oth	erwise not	ted.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sand	y Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)		Sandy Redox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hydrogen Sulfide (A4)			Loam	y Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	;)	Loam	y Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, F	H)	Deple	ted Matrix ((F3)		Reduced Vertic (F18)		
Depleted	d Below Dark Surface	e (A11)	Redo	x Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deple	ted Dark Si	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redo	x Depressic	ons (F8)				
2.5 cm N	Aucky Peat or Peat (S2) (LRR G,	H) High	Plains Depr	essions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	8) (LRR F)	(MLRA 72 & 73 of LRR H)				wetland hydrology must be present,		
Bootrictivo I	aver (if present);						unless disturbed or problematic.		
Turner	Layer (il present).								
Donth (in							Hudria Sail Present? Vac. No. 3	7	
Depth (Inc	cnes):						Hydric Soli Present? Yes No _2	<u> </u>	
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)				
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:					
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No _X Depth (inches):					
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _X				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Pamarks [,]					

Project/Site: PORT OF ND - CRISI GRANT	City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/</u>	21				
Applicant/Owner: PORT OF ND	State: ND Sampling Point:29U					
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: <u>8</u> , 155, 82					
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none): <u></u> Slope (%): <u>0</u> -	1				
Subregion (LRR): F La	at: <u>48.25810453</u> Long: <u>-101.2340541</u> Datum: <u>NAD8</u>	3				
Soil Map Unit Name: Hamlet-Souris-Tonka c	complex, 0-3% slopes NWI classification: <u>N/A</u>					
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes No _X (If no, explain in Remarks.)					
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signific	icantly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ natura	ally 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 No 2	X la the Semaled Area					
Hydric Soil Present? Yes No	X Is the Sampled Area					
Wetland Hydrology Present? Yes No						
Remarks: mostly dry in the precedi	ing weeks					

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1			<u> </u>	That Are OBL, FACW, or FAC	<i></i>
2				(excluding FAC-):	(A)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: 0 (4)	(A/B)
1					
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	
4.				OBL species x 1 =	
5.				FACW species x 2 =	
		= Total Cov	/er	FAC species x 3 =	
Herb Stratum (Plot size: 5)		10101 001		FACU species x 4 =	
_{1.} Brassica rapa	55	Y	FACU	UPL species x 5 =	
2.				Column Totals: (A)	(B)
3.					
4	-			Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
6.		·		1 - Rapid Test for Hydrophytic Vegetation	
7		·		2 - Dominance Test is >50%	
7:		· <u> </u>		3 - Prevalence Index is $≤3.0^1$	
8		·		4 - Morphological Adaptations ¹ (Provide suppo	orting
9			. <u> </u>	data in Remarks or on a separate sheet)	
10		·		Problematic Hydrophytic Vegetation ¹ (Explain))
Weedy Vine Stratum (Plot aize:	_55	= Total Cov	ver	¹ Indicators of hydric soil and wetland hydrology mu	iet
				be present, unless disturbed or problematic.	131
l		·			
2	 		<u> </u>	Hydrophytic Vegetation	
% Bare Ground in Herb Stratum 45	22	= I otal Cov	ver	Present? Yes No X	
Remarks:					

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	n the absence of ind	icators.)		
Depth	Matrix		Red	ox Featur	es1		_			
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type'	Loc	Texture	Remarks		
0-6	10YR 2/1	100 _					<u> </u>			
6-12	10YR 3/2	100					CL			
12-18	10YR 4/3	95	5R 4/6	5	С	М	CL			
		· ·						· · · · · · · · · · · · · · · · · · ·		
		<u> </u>								
								· · · · · · · · · · · · · · · · · · ·		
		. <u> </u>								
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	Reduced Matrix, C	S=Covere	ed or Coate	d Sand G	rains. ² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil I	ndicators: (Application)	able to all Li	RRs, unless othe	rwise no	ted.)		Indicators for Pr	oblematic Hydric Soils [°] :		
Histosol	(A1)		Sandy	Sandy Gleyed Matrix (S4)				(LRR I, J)		
Histic Ep	Histic Epipedon (A2)			Sandy Redox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)		
Black Histic (A3)			Strippe	Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hydrogen Sulfide (A4)			Loamy	Loamy Gleved Matrix (F2)				Depressions (F16)		
Stratified Layers (A5) (LRR F)			Loany	d Matrix	(E3)		(LKK H U Reduced Ver	tic (E18)		
Depleted Below Dark Surface (A11)			Depleto	Dark Sur	(F6)		Red Parent M	Asterial (TE2)		
Thick Dark Surface (A12)			Neolete	ed Dark S	urface (F7)		Very Shallow Dark Surface (TF12)			
Sandy Mucky Mineral (S1)			Redox	Depressi	ons (F8)		Other (Explain in Remarks)			
2.5 cm N	2.5 cm Mucky Peat or Peat (S2) (LRR G. H)			ains Dep	ressions (F	16)	³ Indicators of hyd	rophytic vegetation and		
5 cm Mu	5 cm Mucky Peat or Peat (S3) (LRR F)			(MLRA 72 & 73 of LRR H)				plogy must be present,		
						bed or problematic.				
Restrictive L	_ayer (if present):									
Туре:										
Depth (inc	ches):						Hydric Soil Prese	nt? Yes <u>No X</u>		
Remarks:							•			
	GY									
Wetland Live	. .									

wetland Hydrology indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Invertebrates (B1	13) Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
Water Marks (B1) Dry-Season Water Table	(C2) Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres o	on Living Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Presence of Reduced Iro	on (C4) Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remark	(s) FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previou	us inspections), if available:
Remarks:	

Project/Site: PORT OF ND - CRISI GRANT	_ City/County: <u>MINOT WARD</u> Sampling Date: <u>11/05/21</u>					
Applicant/Owner: PORT OF ND	State: <u>ND</u> Sampling Point: <u>22U</u>					
Investigator(s): KEVIN PLOOF	Section, Township, Range: 8, 155, 82					
Landform (hillslope, terrace, etc.): edge of basin	_ Local relief (concave, convex, none): Slope (%):					
Subregion (LRR): F Lat:	48.26102616					
Soil Map Unit Name: Hamlet-Tonka-Wyard com	plex, 0-3% slopes NWI classification: N/A					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \underline{X} (If no, explain in Remarks.)						
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} significan	tly disturbed? Are "Normal Circumstances" present? Yes X No					
Are Vegetation $\underline{N}_{}$, Soil $\underline{N}_{}$, or Hydrology $\underline{N}_{}$ 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 NoX	 Is the Sampled Area 					
Hydric Soil Present? Yes No X	- within a Watland 2 Yes No. X					

Hydric Soil	Present?		Yes _	NoX	within a Wetland?	Yes	No X	
Wetland H	ydrology Present?		Yes _	<u>No X</u>				
Remarks:	mostly dry	in	the	preceding v	veeks			

	Absolute	Dominant	Indicator	Dominance Test worksheet:						
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species						
1				That Are OBL, FACW, or FAC						
2										
3				Total Number of Dominant						
4				Species Across All Strata: (B)						
		= Total Cov	/er	Percent of Dominant Species						
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)						
1				Brovalance Index workshoet						
2										
3				I otal % Cover or: Multiply by:						
4	<u> </u>			OBL species x 1 =						
5				FACW species x 2 =						
_		= Total Cov	/er	FAC species x 3 =						
Herb Stratum (Plot size: 5)				FACU species x 4 =						
1. <u>Brassica rapa</u>	50	Y	FACU	UPL species x 5 =						
2. <u>Artemisia biennis</u>	5	N	FACU	Column Totals: (A) (B)						
3										
4.				Prevalence Index = B/A =						
5.				Hydrophytic Vegetation Indicators:						
6				1 - Rapid Test for Hydrophytic Vegetation						
7				2 - Dominance Test is >50%						
0				$_$ 3 - Prevalence Index is $\leq 3.0^1$						
0				4 - Morphological Adaptations ¹ (Provide supporting						
9				data in Remarks or on a separate sheet)						
10				Problematic Hydrophytic Vegetation ¹ (Explain)						
Woody Vino Stratum (Plot size:	5	= Total Cov	/er	¹ Indicators of hydric soil and wetland hydrology must						
				be present, unless disturbed or problematic.						
l										
2				Hydrophytic Vegetation						
% Bare Ground in Herb Stratum 45		= Total Cov	/er	Present? Yes No X						
Remarks: harmongtod gapola field										
Profile Desc	cription: (Describe	to the depth ne	eded to docur	nent the	indicator	or confirm	n the absence of indicate	ors.)		
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Depth	Matrix		Redo	x Feature	S	12	Terture	Demonster		
(incnes)		<u> </u>	olor (moist)	<u>%</u>	Туре	LOC		Remarks		
	101R 3/2						<u> </u>			
6-12	<u>10YR 3/1</u>	100					SiL			
12+	10YR 4/3	95 51	R 4/6	5	C	М	SiL			
·							·			
$\frac{1}{1}$ Type: C=C			uced Matrix CS	S=Covere	d or Coate	d Sand G	rains ² l ocation: Pl =	Pore Lining M=Matrix		
Hydric Soil	Indicators: (Application)	able to all LRR	s, unless othe	rwise not	ed.)		Indicators for Proble	matic Hydric Soils ³ :		
Histosol	(A1)		Sandy (Gleyed Ma	atrix (S4)		1 cm Muck (A9) (I	LRR I, J)		
Histic Ep	pipedon (A2)		Sandy F	Redox (SS	5)		Coast Prairie Redox (A16) (LRR F, G, H)			
Black Hi	stic (A3)		Stripped	d Matrix (S	S6)		Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High Plains Depressions (F16)			
Stratified	Layers (A5) (LRR F	5)	Loamy	Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)			
1 cm Mu	ick (A9) (LRR F, G, F	1)	Deplete	d Matrix (F3)		Reduced Vertic (F18)			
Depieted	D Below Dark Surface	e (ATT)		Jark Sum			Red Parent Material (TF2)			
Thick Da	Ark Sunace (A12) Aucky Mineral (S1)		Depiete Redox I	Denressio	unace (F7)		Other (Explain in Remarks)			
2.5 cm N	Aucky Peat or Peat (52) (LRR G. H)	High Pla	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and			
5 cm Mu	icky Peat or Peat (S3	B) (LRR F)	(ML	RA 72 &	73 of LRR	H)	wetland hydrology	/ must be present,		
					unless disturbed of	or problematic.				
Restrictive I	Layer (if present):									
Туре:										
Depth (ind	ches):						Hydric Soil Present?	Yes No _X		
Remarks:										
HYDROLO	IYDROLOGY									

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)		
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)		
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)		
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Water Marks (B1) Dry-Season Water Table (C2)	 Oxidized Rhizospheres on Living Roots (C3) 		
Sediment Deposits (B2) Oxidized Rhizospheres on Living Rod	ots (C3) (where tilled)		
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)		
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)		
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)		
Field Observations:			
Surface Water Present? Yes <u>No X</u> Depth (inches):			
Water Table Present? Yes No X Depth (inches):			
Saturation Present? Yes <u>No X</u> Depth (inches): <u></u> W (includes capillary fringe)	Vetland Hydrology Present? Yes NoX		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ns), if available:		
Remarks:			

Project/Site: <u>PORT OF ND - CRISI GRANT</u>	City/County:	MINOT	WARD	Sampling Date:	11/05/21		
Applicant/Owner: PORT OF ND			State: ND	Sampling Point:	22W		
Investigator(s): <u>KEVIN</u> PLOOF	Section, Tow	nship, Range: _	8, 155,	82			
Landform (hillslope, terrace, etc.): <u>basin</u>	Local relief (concave, conve	ex, none):CC	oncave slo	pe (%): <u>0−2</u>		
Subregion (LRR): F Lat: _	48.26114	588 Lon	g:101.23	36475 Datu	m: NAD83		
Soil Map Unit Name: Hamlet-Souris-Tonka con	mplex, 0	-3% slop	NWI classi	fication: PEM10	7		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes	No X	(If no, explain in	Remarks.)			
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significar	tly disturbed?	Are "Norm	al Circumstances	" present? Yes X	No		
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ naturally	problematic?	(If needed	, explain any answ	vers 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					
Hydric Soil Present? Yes X No	- within	n a Wetland?	Yes ²	X No			
Wetland Hydrology Present? Yes X No	_				-		
Remarks' manufiller dense den blag some stadione							

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:) 1.)	<u>% Cover</u>	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC=): 0 (A	4)
2					Ŋ
3 4				Total Number of Dominant Species Across All Strata: 1 (B)	5)
Sapling/Shrub Stratum (Plot size:)		= Total Cov	rer	Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A	/B)
1				Prevalence Index worksheet:	
2				Total % Cover of: Multiply by:	
3				OBL species x 1 =	
4				FACW species x 2 =	
5		- Total Car		FAC species x 3 =	
Herb Stratum (Plot size: 5)			er	FACU species x 4 =	
<u> </u>	55	Y	UPL	UPL species x 5 =	
2.				Column Totals: (A) (I	B)
3.					
4.				Prevalence Index = B/A =	
5.				Hydrophytic Vegetation Indicators:	
6.				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
9				4 - Morphological Adaptations ¹ (Provide support data in Remarks or on a separate sheet)	ting
10				<u>X</u> Problematic Hydrophytic Vegetation ¹ (Explain)	
Woody Vine Stratum (Plot size:) 1.	55	= Total Cov	ver	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	t
2.				Hydrophytic	
% Bare Ground in Herb Stratum <u>45</u>		= Total Cov	rer	Vegetation Present? Yes X No	
Remarks: farmed wetland				•	

Profile Desc	ription: (Describe t	o the depth	neede	d to docur	nent the i	indicator	or confirn	n the abs	ence of indicators.)		
Depth	Matrix			Redo	x Feature	s					
(inches)	Color (moist)	%	Color	(moist)	%	Type ¹	Loc ²	Textu	re Remarks		
0-6	<u>10YR 2/1</u>	100						<u>loar</u>	n		
6-12	10YR 3/1	95	5R	4/6	5	С	М	loar	n		
12-18	10YR 4/2	95	5R	4/6	5	С	М	loar	n		
	·				·	·					
						·	·				
						·	. <u> </u>				
¹ Type: C=Co	oncentration. D=Depl	etion. RM=R	educe	d Matrix. CS	- S=Covered	d or Coate	d Sand G	rains.	² Location: PL=Pore Lining, M=Matrix,		
Hydric Soil I	ndicators: (Applica	able to all Li	RRs, u	nless other	wise not	ed.)		Indic	ators for Problematic Hydric Soils ³ :		
Histosol	(A1)			Sandy (Gleyed Ma	atrix (S4)		1	cm Muck (A9) (LRR I, J)		
Histic Ep	ipedon (A2)		_	Sandy F	Redox (S5	5)			Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		_	Stripped	d Matrix (S	6)		C	Oark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		_	Loamy I	Mucky Mir	neral (F1)		F	ligh Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F)	_	Loamy (Gleyed Ma	atrix (F2)		_	(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ck (A9) (LRR F, G, H	1)	-	Deplete	d Matrix (F3)		F	Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	-	<u>×</u> Redox [Dark Surfa	ace (F6)		Red Parent Material (TF2)			
Thick Da	irk Surface (A12)		-	Deplete	d Dark Su	Inface (F7)		Very Shallow Dark Surface (TF12)			
Sandy M	lucky Mineral (S1)			Redox L	Jepressio	ns (F8)	40)	3	other (Explain in Remarks)		
2.5 cm N	lucky Peat or Peat (S	(LRR G,	H) _	High Plains Depressions (F16)					Indicators of hydrophytic vegetation and		
5 cm Mu	cky Peat or Peat (S3)(LRR F)		(ML	RA /2 &	/3 of LRR	H)	w	etland hydrology must be present,		
Postrictivo I	avor (if procent):							u T	niess disturbed of problematic.		
	ayer (il present).										
Dopth (inc	2hoo):							Ludric	Soil Present? Vec X No		
Deptil (Inc								Hyund	, Son Present? Pres No		
Remarks:											
HYDROLO	GY										
Wetland Hyp	drology Indicators:										
Primary India	eators (minimum of or	no required:	chock	all that ann	(A)			Sa	condary Indicators (minimum of two required)		
<u>I minary mole</u>	Mators (M1)	ie required,	CHECK	Solt Cruct	<u>y)</u> (P11)			<u></u>	Surface Soil Cracks (P6)		
	tor Table (A2)				(DII)	(P12)			Surface Soli Clacks (BO)		
	$\frac{1}{2} (A2)$					dor(C1)			Drainage Detterns (P10)		
Saturation (A3) Hydrogen Sulfide Odor (C1)								Dialitage Fallerins (BTU)			
	arks (BT)			Dry-Seaso	on vvater i			(OO)			
Sedimen	it Deposits (B2)			Oxidized F	Rhizosphe	res on Liv	ng Roots	(C3)	(where tilled)		
Drift Dep	osits (B3)			(where r	not tilled)			v	Crayfish Burrows (C8)		
Algal Ma	t or Crust (B4)			Presence	of Reduce	ed Iron (C4)	X	Saturation Visible on Aerial Imagery (C9)		
Iron Dep	osits (B5)			Thin Muck	Surface ((C7)			Geomorphic Position (D2)		
Inundatio	on Visible on Aerial Ir	magery (B7)		Other (Exp	plain in Re	emarks)			FAC-Neutral Test (D5)		
Water-St	tained Leaves (B9)								Frost-Heave Hummocks (D7) (LRR F)		

Inundation Visible on Ae	rial Imager	y (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)				
Water-Stained Leaves (I	B9)			Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:								
Surface Water Present?	Yes	No	Depth (inches):					
Water Table Present?	Yes	No	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes	NoX	_ Depth (inches):	Wetland Hydrology Present? Yes X No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD	Sampling Date: <u>11/05/21</u>					
Applicant/Owner: PORT OF ND	State: <u>_ND</u>	Sampling Point: 20U					
Investigator(s): <u>KEVIN</u> PLOOF	Section, Township, Range: 8, 155, 82	2					
Landform (hillslope, terrace, etc.): edge of basin	Local relief (concave, convex, none):	≘ Slope (%): <u>0−1</u>					
Subregion (LRR): F Lat:	8.26108062 Long: -101.2321	Datum: NAD83					
Soil Map Unit Name: Hamlet-Tonka-Wyard com	lex, 0-3% slopes NWI classifica	ation: N/A					
Are climatic / hydrologic conditions on the site typical for this time of	ear? Yes No \underline{X} (If no, explain in Re	emarks.)					
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significant	y disturbed? Are "Normal Circumstances" pr	resent? Yes X No					
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	oblematic? (If needed, explain any answers	s in Remarks.)					
SUMMARY OF FINDINGS – Attach site man showing sampling point locations, transects, important features, etc.							
	33 P3 P1 P - N -	····• • • • • • • • • • • • • • • • • •					
Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area						
Hydric Soil Present? Yes No X	within a Wotland2 Vos	No X					
Wetland Hydrology Present? Yes NoX							

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1				That Are OBL, FACW, or FAC	
2					
3				Total Number of Dominant	
4				Species Across All Strata: (B)	
		= Total Cov	/er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/E	3)
1				Provalance Index worksheet:	
2				Total % Cover of: Multiply by:	
3					
4					
5				FACW species x 2 =	
F		= Total Cov	/er	FAC species X 3 =	
Herb Stratum (Plot size:)				FACU species x 4 =	
1. <u>Brassica rapa</u>	5	<u>Y</u>	FACU	UPL species x 5 =	
2				Column Totals: (A) (B))
3				Prevalence Index = B/A =	
4				Hydrophytic Vogetation Indicators	
5				1 Danid Test for Ludranbutic Vegetation	
6					
7					
8				3 - Prevalence Index is $\leq 3.0^{\circ}$	
9		. <u> </u>		data in Remarks or on a separate sheet)	ıg
10				Problematic Hydrophytic Vegetation ¹ (Explain)	
	5	= Total Cov	/er		
Woody Vine Stratum (Plot size:)				be present, unless disturbed or problematic.	
1					
2				Hydrophytic	
% Bare Ground in Herb Stratum <u>45</u>	55	= Total Cov	/er	Present? Yes No X	
Remarks: harvested canola field					

Profile Desc	ription: (Describe	to the depth r	eeded to docur	nent the	indicator	or confirr	m the absence of indicators.)		
Depth	Matrix								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	10YR 3/2	100							
6-12	<u>10YR 3/1</u>	100					SiL		
12+	10YR 4/3	95 5	R 4/6	5	C	М	SiL		
¹ Type: C=Co	oncentration, D=Depl	letion, RM=Re	duced Matrix, CS	S=Covere	ed or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil I	Indicators: (Applica	able to all LR	Rs, unless othe	rwise no	ted.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy (Gleyed M	atrix (S4)		1 cm Muck (A9) (LRR I, J)		
Histic Ep	oipedon (A2)		Sandy Redox (S5)				Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		Stripped	d Matrix (S6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		Loamy	Mucky M	ineral (F1)		High Plains Depressions (F16)		
Stratified	l Layers (A5) (LRR F	•)	Loamy	Gleyed N	latrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F, G, F	H)	Deplete	d Matrix	(F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	Redox I	Dark Surf	ace (F6)		Red Parent Material (TF2)		
Thick Da	ark Surface (A12)		Deplete	d Dark S	urface (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	/lucky Peat or Peat (S2) (LRR G, H) High Pla	ains Depi	ressions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	icky Peat or Peat (S3	B) (LRR F)	(ML	RA 72 &	73 of LRR	: H)	wetland hydrology must be present,		
Destrictive I							unless disturbed or problematic.		
Restrictive	Layer (if present):								
Type:			-						
Depth (inc	ches):		_				Hydric Soil Present? Yes <u>No X</u>		
Remarks:									
HYDROLO	GY								

Primary Indicators (minimum of one required; check all that apply)								
Salt Crust (B11)	Surface Soil Cracks (B6)							
Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)							
Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)							
Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)							
Oxidized Rhizospheres on Living R	coots (C3) (where tilled)							
(where not tilled)	Crayfish Burrows (C8)							
Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)							
Thin Muck Surface (C7)	Geomorphic Position (D2)							
Other (Explain in Remarks)	FAC-Neutral Test (D5)							
	Frost-Heave Hummocks (D7) (LRR F)							
X Depth (inches):								
X Depth (inches):								
Saturation Present? Yes <u>No X</u> Depth (inches):								
oring well, aerial photos, previous inspecti	ons), if available:							
	Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living R (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) X Depth (inches): x Depth (inches):							

Project/Site: PORT OF ND - CRISI GRANT	City/County: MINOT WARD Sampling Date:						
Applicant/Owner: PORT OF ND	State: ND Sampling Point:20W						
Investigator(s): <u>KEVIN_PLOOF</u>	Section, Township, Range: 8, 155, 82						
Landform (hillslope, terrace, etc.): basin	Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>0-2</u>						
Subregion (LRR): F Lat:	48.26094569 Long: -101.2321879 Datum: NAD83						
Soil Map Unit Name: Hamlet-Souris-Tonka co	mplex, 0-3% slopes NWI classification: PEM1C						
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes No \underline{X} (If no, explain in Remarks.)						
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} significa	ntly disturbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation $\underline{}$, Soil $\underline{}$, or Hydrology $\underline{}$ 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 Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	— Is the Sampled Area — within a Wetland? Yes X No						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1		·		That Are OBL, FACW, or FAC 0 (A)
2				(excluding (AC ⁻). (A)
3		. <u> </u>		Total Number of Dominant
4				Species Across All Strata: (B)
		= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: (A/B)
1				Prevalence Index worksheet:
2				Total % Cover of: Multiply by:
3		·		OBI species x 1 =
4				
5				FAC species $x_3 =$
Lierh Stratum (Distaire) 5		= Total Cov	ver	
Brassica rapa	55	Y	UPT,	
				Column Totolo: (A) (P)
2		. <u></u>	<u> </u>	
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7		·		3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				X Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plateiza)	55	= Total Cov	/er	¹ Indicators of hydric soil and watland hydrology must
woody vine Stratum (Plot size:)				be present, unless disturbed or problematic.
1				
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 45		= Total Cov	ver	Present? Yes X No
Remarks: farmed wetland				1

Profile Desc	ription: (Describe	to the depth	neede	ed to docu	ment the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			Redo	ox Features	3				
(inches)	Color (moist)	%	Colo	(moist)	%	Type'	Loc ²	Texture	Remarks	
0-6	<u>10YR 2/1</u>	100						_CL		
6-12	10YR 3/1	95	5R	4/6	5	С	М	loam		
12-18	10YR 4/2	95	5R	4/6	5	С	М	loam		
	·	·								
·										
		·								
		lation DM-D	oduoo	d Matrix C		d or Coato	d Sand Cr	21 oo	ation: DI -Doro Lining M-Matrix	
Hydric Soil I	ndicators: (Applic	able to all I F		nless offic	rwise note	ad)	u Sanu Gi	Indicators	for Problematic Hydric Soils ³	
Histosol	(A1)		,	Sandy	Gleved Ma	trix (S4)		1 cm M		
Histic Ep	ipedon (A2)		-	Sandy	Redox (S5)		Coast Prairie Redox (A16) (LRR F. G. H)		
Black His	stic (A3)		_	Strippe	d Matrix (S	, 6)		Dark Surface (S7) (LRR G)		
Hydroge	n Sulfide (A4)		_	Loamy	Mucky Min	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	=)	-	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ck (A9) (LRR F, G, I	H)	-	Deplete	ed Matrix (F	=3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	-	<u>~</u> Redox	Dark Surfa	ce (F6)		Red Pa	arent Material (TF2)	
Thick Da	rk Surface (A12)		-	Deplete	o Dark Su	rface (F7)		Very Sr	hallow Dark Surface (TF12)	
	lucky Milleral (ST)	S2) (I RR G	H) -	Redux High Pl	ains Denre	is (ro) ssions (F	16)	³ Indicators (explain in Remarks)	
<u> </u>	cky Peat or Peat (S	3) (LRR F)	(MLRA 72 & 73 of LRR H)				H)	wetland	hydrology must be present	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		<i>s)</i> (_ ,	(unless	disturbed or problematic.	
Restrictive L	ayer (if present):								•	
Type:			_							
Depth (inc	hes):							Hydric Soil	Present? Yes ^X No	
Remarks [.]	,		_							
HYDROLO	GY									
Wetland Hyd	Irology Indicators:									
Primary Indic	ators (minimum of o	ne required;	check	all that app	ly)			Seconda	ry Indicators (minimum of two required)	
Surface Water (A1) Salt Crust (B11)							Surfa	ace Soil Cracks (B6)		
High Water Table (A2) Aquatic Invertebrates (B13)						Spar	selv Vegetated Concave Surface (B8)			
Saturation (A3) Hvdrogen Sulfide (dor (C1)		Drair	nage Patterns (B10)	
Water M	arks (B1)			Dry-Seaso	on Water T	able (C2)		Oxid	ized Rhizospheres on Living Roots (C3)	
Sedimen	t Deposits (B2)			Oxidized I	Rhizospher	res on Liv	ina Roots ((C3) (w	here tilled)	
	· · · · · · · · · · · · · · · · · · ·						5 5		fish Burrana (OO)	

Wetland Hydrology Indicators:							
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)						
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)						
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)						
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)						
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)						
Sediment Deposits (B2) Oxidized Rhizospheres on Living R	Roots (C3) (where tilled)						
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)						
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)						
Iron Deposits (B5) Thin Muck Surface (C7)	\underline{X} Geomorphic Position (D2)						
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)						
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)						
Field Observations:							
Surface Water Present? Yes <u>No X</u> Depth (inches):							
Water Table Present? Yes No _X Depth (inches):							
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

Project/Site: PORT OF ND - CRISI GRANT	City/County:	MINOT	WARD	Sampling Date: 1	1/05/21	
Applicant/Owner: PORT OF ND		S	State: ND	Sampling Point:	21U	
Investigator(s): KEVIN PLOOF	Section, Town	ship, Range:	8, 155, 8	2		
Landform (hillslope, terrace, etc.): edge of basin	Local relief (cr	oncave, convex,	none): <u>none</u>	e Slope	e (%): <u>0-1</u>	
Subregion (LRR): F Lat: _	48.261318	342 Long:	-101.232	1298 Datum	NAD83	
Soil Map Unit Name: Hamlet-Tonka-Wyard com	plex, 0-3	% slopes	NWI classifica	ation: N/A		
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes	No (lf no, explain in Re	emarks.)		
Are Vegetation \underline{Y} , Soil \underline{N} , or Hydrology \underline{N} signification	ntly disturbed?	Are "Normal	Circumstances" pi	resent? Yes X	No	
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} naturally	problematic?	(If needed, ex	xplain any answer	s in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No X						
Hydric Soil Present? Yes <u>No X</u>	— Is the s	ampled Area	Voe	No X		
Wetland Hydrology Present? Yes No X	Within [165			

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1			<u> </u>	That Are OBL, FACW, or FAC	(A)
2			<u> </u>	(excluding FAC=).	(A)
3			<u> </u>	Total Number of Dominant	
4				Species Across All Strata:	(B)
		= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC:	(A/B)
1			<u> </u>	Brovalanco Indox workshoot:	
2	·			Total % Cover of:	
3					
4					_
5				FACW species x 2 =	
F		= Total Cov	ver	FAC species x 3 =	_
Herb Stratum (Plot size:)				FACU species x 4 =	
1. <u>Brassica rapa</u>	50	<u> </u>	FACU	UPL species x 5 =	_
2. <u>Artemisia biennis</u>		N	FACU	Column Totals: (A)	(B)
3				Dravelance Index D/A -	
4				Prevalence index = B/A =	_
5				Hydrophytic vegetation indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8.				3 - Prevalence Index is ≤3.0'	
9.				4 - Morphological Adaptations ¹ (Provide sup data in Remarks or on a separate sheet)	porting
10	·			Problematic Hydrophytic Vegetation ¹ (Explai	n)
	55	= Total Cov	ver		
<u>Woody Vine Stratum</u> (Plot size:)				be present, unless disturbed or problematic.	nust
1	·			······································	
2			. <u> </u>	Hydrophytic	
% Pare Cround in Herb Stratum 45	55	= Total Cov	ver	Present? Yes No X	
Remarks: he survey at a diverse la file la					
narvested canola field					

Profile Desc	ription: (Describe	to the dept	h need	ed to docu	ment the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix			Redo	ox Feature	es				
(inches)	Color (moist)	%	Colo	or (moist)	%	Type'	Loc ²	Texture Remarks		
0-6	10YR 3/2	100						<u></u>		
6-12	<u>10YR 3/1</u>	100						SiL		
12+	10YR 4/3	95	5R	4/6	5	С	М	SiL		
			Deduce	ad Matrix Of						
Hydric Soil	Indicators: (Application)	able to all I		inless othe	s=covere	ed or Coate	a Sana G	Indicators for Problematic Hydric Soils ³		
Histosol	(Δ1)			Sandy (Gleved M:	atrix $(S4)$		1 cm Muck (A9) (I BB L I)		
Histic Er	ninedon (A2)			Sandy I	Redox (St	5)		Coast Prairie Redox (A16) (LRR F. G. H)		
Black Hi	stic (A3)			Stripped Matrix (S6)				Dark Surface (S7) (LRR G)		
Hvdroge	en Sulfide (A4)			Loamy Mucky Mineral (F1)				High Plains Depressions (F16)		
Stratified	d Lavers (A5) (LRR F	•)		Loamy Gleved Matrix (F2)				(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ick (A9) (LRR F. G. I	/)		Depleted Matrix (F3)				Reduced Vertic (F18)		
Depleted	d Below Dark Surface	, e (A11)		Redox Dark Surface (F6)				Red Parent Material (TF2)		
Thick Da	ark Surface (A12)			Depleted Dark Surface (F7)				Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)			Redox	Depressio	ons (F8)		Other (Explain in Remarks)		
2.5 cm N	Aucky Peat or Peat (S2) (LRR G	. H)	High Plains Depressions (F16)				³ Indicators of hydrophytic vegetation and		
5 cm Mi	icky Peat or Peat (S?	3) (LRR F)	,,	(MLRA 72 & 73 of LRR H)				wetland hydrology must be present		
)(2)						unless disturbed or problematic.		
Restrictive I	Layer (if present):									
Туре:										
Depth (inches):								Hydric Soil Present? Yes No _X		
Remarks:										
HYDROLO	GY									
Wetland Hy	drology Indicators:									
Primary India	cators (minimum of o	ne required	; check	all that appl	ly)			Secondary Indicators (minimum of two required)		

Wetland Hydrology Indicators:								
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)							
Surface Water (A1) Salt Crust (B11)	Surface Soil Cracks (B6)							
High Water Table (A2) Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)							
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)							
Water Marks (B1) Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)							
Sediment Deposits (B2) Oxidized Rhizospheres on Liv	ing Roots (C3) (where tilled)							
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)							
Algal Mat or Crust (B4) Presence of Reduced Iron (C4	 Saturation Visible on Aerial Imagery (C9) 							
Iron Deposits (B5) Thin Muck Surface (C7)	Geomorphic Position (D2)							
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	FAC-Neutral Test (D5)							
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)							
Field Observations:								
Surface Water Present? Yes <u>No X</u> Depth (inches):	_							
Water Table Present? Yes <u>No X</u> Depth (inches):	_							
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								

Project/Site: PORT OF ND - CRISI GRANT City/County: MINOT WARD Sampling Date: 11/05/22						
Applicant/Owner: PORT OF ND State: ND Sampling Point: 21W						
Investigator(s): KEVIN PLOOF Section, Township, Range: 8, 155, 82						
Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): Concave Slope (%): 0-2						
Subregion (LRR):FLat: _48.26141107Long:101.2320877Datum:NAD83						
Soil Map Unit Name: Hamlet-Souris-Tonka complex, 0-3% slopes NWI classification: PEM1C						
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No $\frac{X}{X}$ (If no, explain in Remarks.)						
Are Vegetation <u>Y</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No						
Are Vegetation \underline{N} , Soil \underline{N} , or Hydrology \underline{N} 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 Hydric Soil Present? Yes X No within a Wetland? Yes X No						
Wetland Hydrology Present? Yes X No Pomarke: Image: A state of the state of t						

Remarks: mostly dry in the preceding weeks

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	% Cover	Species?	Status		
/	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		010100	Number of Dominant Species	
		·		(excluding EAC=):	(Δ)
2					(~)
3				Total Number of Dominant	
4				Species Across All Strata:	(B)
		Tatal Oa			
Sanling/Shrub Stratum (Plot size:			/er	Percent of Dominant Species	
				That Are OBL, FACW, or FAC:	(A/B)
1				Prevalence Index worksheet	
2					
3					_
4.				OBL species x 1 =	_
5				FACW species x 2 =	_
5				FAC species x 3 =	
Harb Stratum (Plot size: 5)		= Total Cov	/er	FACU species x 4 =	_
Brassica rana	55	v	TIDT.		_
			<u> </u>	UPL species X 5 =	-
2		·		Column Totals: (A)	_ (B)
3					
4.				Prevalence Index = B/A =	_
5				Hydrophytic Vegetation Indicators:	
5				1 - Rapid Test for Hydrophytic Vegetation	
6				2 - Dominance Test is >50%	
7		·		$\frac{1}{2} = \frac{1}{2} $	
8					
9.				4 - Morphological Adaptations' (Provide supplications)	porting
10	_				
10				Problematic Hydrophytic Vegetation' (Explain	n)
Woody Vino Stratum (Plot size:		= Total Cov	/er	¹ Indicators of hydric soil and wetland hydrology m	nuet
				be present, unless disturbed or problematic.	lust
1					
2				Hydrophytic	
		= Total Cov	/er	Vegetation	
% Bare Ground in Herb Stratum 45				Present? Yes <u>^</u> No	
Remarks:					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-6	<u>10YR 2/1</u>	100							
6-12	10YR 3/1	95 5	R 4/6	5	C	М	loam		
12-18	10YR 4/2	95 5	5R 4/6 5 C M				loam		
					- <u> </u>				
¹ Type: C=Co	ncentration, D=Dep	letion, RM=Redu	ced Matrix, CS	S=Covere	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.	_	
Hydric Soil I	ndicators: (Application	able to all LRRs	, unless other	wise not	ed.)		Indicators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy C	Sleyed Ma	atrix (S4)		1 cm Muck (A9) (LRR I. J)		
Histic Ep	ipedon (A2)		Sandy F	Redox (S5	5)		Coast Prairie Redox (A16) (LRR F, G, H)		
Black His	stic (A3)		Stripped	Matrix (S	56)		Dark Surface (S7) (LRR G)		
Hydroger	n Sulfide (A4)		Loamy I	Mucky Mi	neral (F1)		High Plains Depressions (F16)		
Stratified	Layers (A5) (LRR F	-)	Loamy (Gleyed M	atrix (F2)		(LRR H outside of MLRA 72 & 73)		
1 cm Mu	ck (A9) (LRR F, G, I	- ()	Deplete	d Matrix (F3)		Reduced Vertic (F18)		
Depleted	Below Dark Surface	e (A11)	X Redox [Dark Surfa	ace (F6)		Red Parent Material (TF2)		
Thick Da	rk Surface (A12)		Deplete	d Dark Su	urface (F7)	1	Very Shallow Dark Surface (TF12)		
Sandy M	ucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Explain in Remarks)		
2.5 cm M	ucky Peat or Peat (S2) (LRR G. H)	High Pla	ains Depr	essions (F	16)	³ Indicators of hydrophytic vegetation and		
5 cm Mu	ky Peat or Peat (S?	3) (I RR F)	<u> </u>	RA 72 &	73 of I RR	(H)	wetland hydrology must be present		
)()	()	unless disturbed or problematic.		
Restrictive L	ayer (if present):								
Туре:									
Depth (inc	hes):	<u> </u>					Hydric Soil Present? Yes X No		
Remarks:									
HYDROLO	GY								
Wetland Hyd	rology Indicators:								
Primary Indic	ators (minimum of o	ne required; che	ck all that apply	y)			Secondary Indicators (minimum of two require	<u>ed)</u>	
Surface	Water (A1)		Salt Crust	(B11)			Surface Soil Cracks (B6)		
High Water Table (A2)			Aquatic Inv	vertebrate	es (B13)		Sparsely Vegetated Concave Surface (B8)		

 Hydrogen Sulfide Odor (C1)
 Dry-Season Water Table (C2)
 Oxidized Rhizospheres on Living Roots (C3)
(where not tilled)
 Presence of Reduced Iron (C4)
 Thin Muck Surface (C7)

			——	o () ()		
Drift Deposits (B3)			(where not tilled)	Crayfish Burrows (C8)		
Algal Mat or Crust (B4)			Presence of Reduced Iron (C4)	X Saturation Visible on Aerial Imagery (C9)		
Iron Deposits (B5)		-	Thin Muck Surface (C7)	X Geomorphic Position (D2)		
Inundation Visible on A	erial Imagery	/ (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)			Frost-Heave Hummocks (D7) (LRR F)		
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 (st	ream gauge	, monitori	ng well, aerial photos, previous insp	ections), if available:		
Remarks:						

Saturation (A3)

Water Marks (B1) ____ Sediment Deposits (B2) ____ Drainage Patterns (B10)

(where tilled)

Oxidized Rhizospheres on Living Roots (C3)

Other Water 1 - Stormwater Drainage Swale at Minot Milling. Upland vegetation or bare soil. No standing water at time of site work. Photo 47, Appendix C.

Other Water 2 - Drainage ditch from Wetland 4 to drainage ditches south of Port property. Some standing water at time of site work. Hydrophytic veg (Typha spp.) in ditch. Photo 48, Appendix C.

Other Water 3 - Erosional rill/gully along west side of agricultural field. Upland vegetation or bare ground throughout the length of OW3 to its discharge point near Wetland 19. Photo 49, Appendix C.

Other Water 4 - Excavated gravel pit with several ponds of standing water. Bounds delineated were near the top of the pit walls. The pit was actively being used and was not entered for safety reasons. Photo 50, Appendix C.

Other Water 5 - Stormwater retention pond. Standing water in pond. Bounds were near top of pond. Photo 51, Appendix C.

Other Water 6 - Wash plant discharge ponds for gravel wash/sorting plant. Three separate but connected ponds with a discharge to the south at Wetland 28. Photo 52, Appendix C.

Other Water 7 - Drainage swale connecting Wetland 28 to OW5. Upland veg or bare ground in swale. Photo 53, Appendix C.

Other Water 8 - Stormwater ditch collecting water off Port rail area and directing it west towards the Livingston Coulee railway spur line and presumably discharging through crossing culverts to Livingston Coulee. Photo 54, Appendix C.

Other Water 9 - Stormwater ditch collecting runoff from the north section of the former FEMA park. Discharging to a large riprap dissapation structure to diffuse runoff and reduce erosion.

Other Water 10 - Stormwater ditch collecting runoff from the central section of the former FEMA park. Discharging to a large riprap dissapation structure to diffuse runoff and reduce erosion.

Other Water 11 - Stormwater ditch collecting runoff from the south section of the former FEMA park. Discharging to a large riprap dissapation structure to diffuse runoff and reduce erosion. Photos 57 and 58, Appendix C.

USACE determined no access was required to make JD determination.

YOUR TRIP TO:

North Dakota Port Services

1 HR 59 MIN | 117 MI 🛱

Est. fuel cost: \$9.97

Trip time based on traffic conditions as of 9:15 AM on December 10, 2021. Current Traffic: Light	Print a full health report of your car with HUM vehicle diagnostics (800) 906-2501
1. Start out going north on University Dr/ND-1804 towa to follow ND-1804.	ard Sisseton St. Continue
Then 3.77 miles	3.77 total miles
2. Turn right onto E Boulevard Ave/ND-1804. Continue ND-1804 is just past E Avenue F.	to follow ND-1804.
Then 4.61 miles	8.38 total miles
 Stay straight to go onto Highway 83/US-83 N. Conti Then 102 62 miles 	nue to follow US-83 N. 111.00 total miles
4. Merge onto US-2 E toward Jamestown/Devils Lake Then 4.76 miles	115.76 total miles
 5. Turn left onto 55th St. 55th St is 0.2 miles past 52nd St. 	
If you reach 59th St you've gone about 0.2 miles too far.	
Then 0.77 miles	116.53 total miles
 6. Turn left onto 5th Ave/County Hwy-12. If you reach 19th Ave you've gone about 1 mile too far. 	
Then 0.64 miles	117.17 total miles
7. North Dakota Port Services, 4900 RAILWAY AVE. If you reach 42nd St you've gone about 0.3 miles too far.	

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