WETLAND DELINEATION REPORT

NORTH PLATTE AREA IRRIGATION CANAL DIVERSION MODERNIZATION PROJECT WATERSHED PLAN

PREPARED FOR:

Twin Platte Natural Resources District

North Platte, Nebraska

October 2025

Olsson Project No. 022-04885

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1. INTRODUCTION

This report documents the findings of a wetland delineation for the North Platte Area Irrigation Canal Diversion Modernization Project Plan (Project). The Project focuses on the design and construction of improved agricultural water management for six irrigation canals in the Twin Platte Natural Resources District (TPNRD) Service Boundary. The Project is located in Keith and Lincoln Counties, Nebraska Appendix A, Figure 1 and Figure 2). The Project incorporates sites across approximately 40 miles generally located along the North Platte River corridor. The TPNRD contracted Olsson, Inc. (Olsson) to identify and delineate wetlands, stream channels, and other waters within the proposed Project study area (Overall Study Area). This report provides a description of the Overall Study Area, methods used, investigation results, and a discussion of the results.

The Overall Study Area consists of five separate Study Areas totaling a combined 93 acres. The Study Areas are located in the Nevens, Sutherland Reservoir, Hershey West, and North Platte West, Nebraska quadrangles from west to east. **Table 1** identifies each Study Area and the Sections, Townships, and Ranges, and geometric center in which data was collected.

Table 1. Section, township, and range, and geometric center of each Study Area.

Study Area ID	Section	Township	Range	Latitude	Longitude
Keith Lincoln Canal	07	14N	36W	41.187011	-101.489242
Keith Lincoln Canal	18	14N	36W	41.187011	-101.489242
Platte Valley Canal and Paxton-Hershey Canal	13	14N	34W	41.184875	-101.154879
Platte Valley Canal and Paxton-Hershey Canal	18	14N	33W	41.184875	-101.154879
Birdwood Creek and Birdwood Canal	35	15N	33W	41.225082	-101.073118
Suburban Canal	07	14N	32W	41.199429	-101.040772
Suburban Canal	12	14N	33W	41.199429	-101.040772
Cody-Dillon Canal	09	14N	31W	41.198308	-100.868525
Cody-Dillon Canal	10	14N	31W	41.198308	-100.868525

2. DESKTOP REVIEW

Olsson reviewed publicly available information to identify areas with the potential to support wetlands, streams, and other aquatic resources within the Overall Study Area. Data sources

reviewed included aerial photography (ESRI 2025; Google Earth 2024), U.S. Geological Survey (USGS) topographic maps (USGS 1971, 2014), USGS National Hydrography Dataset (NHD) database (USGS 2024), U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) database (USFWS 2024), Keith and Lincoln County Soil Survey data via the Soil Survey Geographic (SSURGO) database (SSURGO 2024). Data from these resources are shown in Appendix A, Figure 1 through Figures 3A – 3E. The desktop review identified areas that may have wetland indicators (e.g., mapped wetlands, areas with hydric soils, saturation visible on aerial imagery, etc.). Additionally, the Antecedent Precipitation Tool (APT, USACE 2025) was used to determine climatic conditions of the site at the time of field investigation (Appendix B). The field investigation was not limited to or restricted to these areas identified by the desktop review. Additional points were taken for documentation of areas observed with wetland characteristics not previously identified.

2.1 USGS Topographic Maps

The Location Map (Appendix A, Figure 1) indicates the relief is generally flat with elevations ranging from 2,840 feet above mean sea level (msl) at the easternmost portion of the Overall Study Area (Cody-Dillon Canal) to 3,070 feet above msl in the westernmost Overall Study Area (Keith Lincoln Canal). Table 2 summarizes the elevation range within each Study Area. The USGS topographic layer depicts several stream channels and pond/lakes within the Study Area. Named aquatic resources include the North Platte River, Keith Lincoln Canal, Duck Creek, Platte Valley Canal, Paxton-Hershey Canal, Birdwood Creek, Birdwood Canal, and Suburban Canal.

Table 2. Elevation range within each Study Area.

Study Area ID	Elevation Range (feet above msl)
Keith Lincoln Canal	3,060 – 3,070
Platte Valley Canal and Paxton-Hershey Canal	2,945 – 2,960
Birdwood Creek and Birdwood Canal	2,920 – 2,935
Suburban Canal	2,900 – 2,910
Cody-Dillon Canal	2,840 – 2,850

2.2 Aerial Imagery Review

The Site Map (Appendix A, Figure 2) shows the Study Area is predominantly a riverine corridor, composed of a patchwork of floodplain wetlands, agricultural fields, and waterways ranging in size from irrigation canals to the North Platte River.

2.3 NHD and NWI Databases

The Natural Resources Map (Appendix A, Figure 3A – 3E), the NHD depicts eight “Other Flowlines” named stream channels within the Overall Study Area: North Platte River, Duck Creek, and Keith Lincoln Canal are in the Keith Lincoln Canal Study Area; North Platte River, Platte

Valley Canal, and Paxton Hershey Canal are in the Paxton Hershey Canal Study Area; Birdwood Creek and Birdwood Canal are in the Birdwood Canal Study Area; North Platte River and Suburban Canal in the Suburban Canal Study Area; and North Platte River in the Cody-Dillon Canal Study Area. Additional unnamed intermittent streams and other flowlines are also depicted throughout the Overall Study Area and are summarized in **Table 3**.

Table 3. National Hydrography Database Features in the Overall Study Area.

Feature Type	Linear Feet (LF)
Other Flowlines	7,128.14
Intermittent Stream	924.32
NHD Waterbody	0.13 acre
Total	**8,052.46 LF 0.13 acre**

Source: USGS 2024

The NWI depicts several freshwater emergent wetlands, freshwater forested/shrub wetlands, and riverine habitats, which generally align with stream channels and other flowlines in the NHD. Numerous freshwater ponds are sporadically distributed across the Overall Study Area, typically near the NHD-mapped areas (Appendix A, Figures 3A – 3E). These features are summarized in **Table 4**.

Table 4. National Wetlands Inventory Database Features in the Overall Study Area.

Feature Type	Acres
Freshwater Emergent Wetland	5.56
Freshwater Forested/Shrub Wetland	3.29
Riverine Habitat	20.66
Freshwater Pond	0.66
Total	**30.17**

2.4 SSURGO Database

The Natural Resources Map (Appendix A, Figure 3) identified the following 17 SSURGO soil map units within the Study Area:

- 2335 – Inavale loamy fine sand, 0 to 3 percent slopes; non-hydric
- 3571 – Humbarger loam, gravelly substratum; non-hydric
- 4691 – Marlake mucky peat; 100 percent hydric rating
- 4380 – Loup complex, rarely flooded; 100 percent hydric rating

- 4807 – Valentine fine sand, rolling, 9 to 24 percent slopes; 1 percent hydric rating
- 5643 – Janise loam, occasionally flooded; 5 percent hydric rating
- 6328 – Lawet fine sandy loam, drained, occasionally flooded; non-hydric
- 6336 – Lawet silt loam, occasionally flooded; 100 percent hydric rating
- 6337 – Lawet silt loam, drained, occasionally flooded; 1 percent hydric rating
- 8492 – Gothenburg loamy sand, occasionally flooded; 100 percent hydric rating
- 8495 – Gothenburg soils, frequently flooded; 100 percent hydric rating
- 8503 – Lex loam, occasionally flooded; 1 percent hydric rating
- 8563 – Platte Loam, occasionally flooded; 5 percent hydric rating
- 8581 – Wann fine sandy loam, rarely flooded; 1 percent hydric rating
- 8804 – Anselmo sandy loam, terrace, 0 to 3 percent slopes; non-hydric
- 9900 – Fluvaquents, frequently flooded; 100 percent hydric rating
- 9999 – Water

The hydric percentage indicates what percentage of the soil map unit meets the criteria for hydric soils, which may indicate wetland conditions.

Marlake mucky peat (4691), Loup complex, rarely flooded (4380), Lawet silt loam, occasionally flooded (6336), Gothenburg soils, frequently flooded (8495), and Fluvaquents, frequently flooded (9900) are found sporadically throughout the Overall Study Area. These soils all have a hydric rating of 100 percent and are more likely to support wetland conditions. All other soil map units have a hydric rating of 5 or less and are not likely to support wetland conditions.

2.5 APT

The coordinates used for the APT were latitude 41.19441 degrees and longitude -101.16251 degrees. The APT returned a score of 17 for the first site visit on July 15, 2025, indicating conditions were wetter than normal. The APT returned a score of 11 for the second site visit on September 3, 2025, indicating conditions were normal. Both field investigations were conducted within the dry season. The Palmer Drought Severity Index indicated the Overall Study Area was experiencing a mild drought during the two field investigations. Despite the mild drought, APT results indicated that climatic conditions on the wetland determination data forms were normal at the time of the field investigation. The APT results can be found in Appendix B.

3. FIELD INVESTIGATION METHODS

Olsson staff visited the Overall Study Area on July 15 – 18, 2025, and on September 3, 2025, to complete the wetland delineation field investigation. The wetland delineation followed methodology described in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region* (USACE 2010). All conditions described represent conditions at the

time of the field investigation. U.S. Army Corps of Engineers Wetland Determination Data Forms are included in Appendix C. Photographs were taken during the visit and are shown in Appendix D. Sample point locations, photo locations, and delineated water features are shown in Appendix A, Figure 4A – 4Q.

4. RESULTS

Wetlands and Waterbodies

A total of 81 wetlands and waterbodies were delineated across the Overall Study Area, including one Palustrine Aquatic Bottom (PAB) open water, one Palustrine Forested Temporarily Flooded (PFOA) wetland, six Palustrine Scrub Shrub Temporarily Flooded (PSSA) wetlands, six Palustrine Unconsolidated Bottom (PUB) open water features, and 67 Palustrine Emergent Temporarily Flooded/Seasonally Flooded (PEMA/C) wetlands. **Table 5** summarizes the wetlands and other waters delineated within and adjacent to the Overall Study Area.

Table 5. Delineated Wetlands and Waterbodies.

Feature ID	Sample Point(s)	Cowardin Classification*	Photograph(s)	Figure(s)	Acres
Wetland 1	1	PEMA/C	1	4E and 4F	0.05
Wetland 3	3	PEMA/C	3	4E	0.06
Wetland 7	7	PEMA/C	7	4E	<0.01
Wetland 9	9	PEMA/C	9	4E	0.10
Wetland 11	11	PSSA	11	4E	0.08
Wetland 13	13	PEMA/C	13	4E	0.02
Wetland 15	15	PSSA	15	4E	0.03
Wetland 17a	17	PEMA/C	17	4E	0.48
Wetland 17b	17	PEMA/C	17	4E	<0.01
Wetland 19	19	PUB	19	4E	0.84
Open Water 19	19	PEMA/C	19	4E	0.03
Wetland 21	21	PSSA	21	4E	0.12
Wetland 23	23	PEMA/C	23	4E	0.17
Wetland 25	25	PEMA/C	25	4E	0.18
Wetland 27a	27	PUB	27	4E	0.01
Wetland 27a	27	PEMA/C	27	4E	0.04
Wetland 27b	27	PUB	27	4E	0.01
Wetland 27b	27	PEMA/C	27	4E	0.01

Feature ID	Sample Point(s)	Cowardin Classification*	Photograph(s)	Figure(s)	Acres
Wetland 30	30	PEMA/C	30	4E	0.02
Wetland 32	32	PEMA/C	32	4E	0.01
Wetland 33a	33	PEMA/C	33	4E	0.01
Wetland 33b	33	PEMA/C	33	4E	<0.01
Wetland 37a	37	PEMA/C	37	4B	<0.01
Wetland 37b	37	PEMA/C	37	4B	<0.01
Wetland 38	38	PEMA/C	38	4B	0.01
Wetland 40a	40	PEMA/C	40	4B	<0.01
Wetland 40b	40	PEMA/C	40	4B	<0.01
Wetland 45	45	PEMA/C	45	4G	<0.01
Wetland 47	47	PEMA/C	47	4G	0.01
Wetland 49a	49	PEMA/C	49	4G	0.07
Wetland 49b	49	PEMA/C	49	4G	<0.01
Open Water 50a	50	PUB	50	4G	0.59
Wetland 50b	50	PEMA/C	50	4G	0.01
Wetland 50c	49	PEMA/C	50	4G	0.19
Open Water 52a	52	PUB	52	4G	0.10
Wetland 52a	52	PEMA/C	52	4G	0.27
Wetland 52b	52	PEMA/C	52	4G	0.13
Wetland 54	54	PEMA/C	54	4G	0.02
Wetland 56	56	PEMA/C	56	4H	0.13
Wetland 58	58	PEMA/C	58	4H	0.01
Open Water 58	58	PUB	58	4H	0.04
Wetland 60	60	PEMA/C	60	4H	0.03
Wetland 61	61	PEMA/C	61	4H	0.01
Wetland 64	64	PSSA	64	4H	0.01
Wetland 65	65	PEMA/C	65	4H	0.01
Wetland 67a	67	PEMA/C	67	4H	<0.01
Wetland 67b	67	PEMA/C	67	4I	<0.01

Feature ID	Sample Point(s)	Cowardin Classification*	Photograph(s)	Figure(s)	Acres
Wetland 70a	70	PEMA/C	70	4N	<0.01
Wetland 70b	70	PEMA/C	72	4N	0.01
Wetland 73a	73	PEMA/C	73	4N	0.13
Wetland 73b	73	PEMA/C	73	4N	0.16
Wetland 77	77	PEMA/C	77	4N	0.55
Wetland 80	80	PEMA/C	80	4N	0.18
Wetland 82	80	PSSA	80	4N	0.09
Wetland 83	83	PEMA/C	83	4J	0.04
Wetland 85	85	PSSA	85	4J	<0.01
Wetland 86a	86	PEMA/C	86	4J	0.06
Wetland 86b	86	PEMA/C	86	4J	<0.01
Wetland 91a	91	PEMA/C	91	4J	0.01
Wetland 91b	91	PEMA/C	91	4J	<0.01
Wetland 93	93	PEMA/C	93	4J	0.01
Wetland 96a	96a	PEMA/C	96a	4J	1.43
Wetland 96b	96b	PFOA	96b	4J	0.76
Wetland 102a	102	PEMA/C	102a	4O	0.01
Wetland 102b	102	PEMA/C	102b	4O	0.02
Wetland 102c	102	PEMA/C	102c	4O	0.07
Wetland 102d	102	PEMA/C	102d	4O	0.02
Wetland 102e	102	PEMA/C	102d	4O	0.01
Wetland 105a	105	PEMA/C	105a	4P	0.16
Wetland 105b	105	PEMA/C	-	4P	0.06
Wetland 105c	105	PEMA/C	-	4P	0.04
Wetland 105d	105	PEMA/C	105b	4P, 4Q	1.31
Wetland 108	108, 109	PEMA/C	108(a, b, c, d), 109	4G, 4H	1.30
Open Water 110	110	PAB	110	4H	0.03

Feature ID	Sample Point(s)	Cowardin Classification*	Photograph(s)	Figure(s)	Acres
Wetland 113a	113	PEMA/C	113	4H	0.04
Wetland 113b	113	PEMA/C	113	4H	0.02
Wetland 116a	116	PEMA/C	116	4H	0.02
Wetland 116b	116	PEMA/C	-	4H	0.06
Wetland 116c	116	PEMA/C	-	4H	0.07
Wetland 121a	121	PEMA/C	121a, 121b	4I	0.01
Wetland 121b	121	PEMA/C	-	4I	0.01

Totals:

PEMA/C	7.89
PFOA	**0.76**
PSSA	**0.33**
PAB	**0.03**
PUB	**1.59**
TOTAL	**10.6**

PEMA/C = Palustrine Emergent Temporarily Flooded/Seasonally Flooded; PSSA = Palustrine Scrub-Shrub Temporarily Flooded; PFOA = Palustrine Forested Temporarily Flooded; PUB = Palustrine Unconsolidated Bottom; PAB = Palustrine Aquatic Bottom
*****(Cowardin et al. 1979)

Stream Channels

A total of sixteen stream channels were identified within the Study Area including 11 perennial channels and five intermittent channels. **Table 6** summarizes the stream channels identified within the Study Area.

Table 3. Delineated Streams.

Feature ID	Feature Name	Sample Point(s)	Flow Type	Photograph(s)	Figure(s)	OHWM* Width (Feet)	Linear Feet
Channel 1	Keith Lincoln Canal	1	Perennial	7	4E, 4F	30	539
Channel 6	North Platte River	6	Perennial	6, 7	4E	300	620
Channel 37	-	37	Intermittent	37, 38	4B	23-25	89

Feature ID	Feature Name	Sample Point(s)	Flow Type	Photograph(s)	Figure(s)	OHWM* Width (Feet)	Linear Feet
Channel 40	Duck Creek	40, 42	Intermittent	40, 41, 42	4B	25-27	161
Channel 43	Platte Valley Canal	43	Perennial	43, 44a, 44b, 123, 124	4G, 4H, 4I	35-45	2,061
Channel 46	North Platte River	46	Perennial	46	4E, 4G, 4H, 4I	230-310	2,580
Channel 63	Paxton-Hershey Canal	63	Perennial	63, 121c	4H	23-42	519
Channel 69	North Platte River	69	Perennial	69	4N	143-226	582
Channel 70	Suburban Canal	70	Perennial	70	4N	45-60	172
Channel 72	-	72	Intermittent	72	4N	1-3	378
Channel 83	Birdwood Creek	83	Perennial	83, 93b	4J	32-77	740
Channel 86	Birdwood Canal	86	Perennial	86	4J	25-35	267
Channel 96	-	96, 98	Intermittent	96c	4J	1-3	335
Channel 99	Cody-Dillon Canal	99	Perennial	99	4O	25-60	1,051
Channel 100	North Platte River	100	Perennial	100	4O	200-240	974
Channel 107	-	107	Intermittent	107	4Q	4-7	480

Totals:

Perennial	**10,105**
Intermittent	1,443
Cumulative Total	11,548

*OHWM – ordinary high-water mark

5. DISCUSSION

Olsson identified one PAB open water feature, one PFOA wetland, six PSSA wetlands, six PUB open water features, and 68 PEMA/C wetlands, five intermittent stream channels, and 11 perennial stream channels within the Overall Study Area.

According to the APT tool, conditions for the site visits ranged from “Wetter than Normal” to “Normal Conditions” and the Palmer Drought Severity Index was within a mild drought during the two field investigations. All wetland determinations were made using professional judgement. Wetland boundaries were mapped in the field according to the dominance of hydrophytic and non-hydrophytic vegetation, elevation change, indicators of hydric soils, and indicators of wetland hydrology. Stream channel ordinary high-water marks were mapped in the field by observing channel characteristics such as a clear line on the bank, changes in soil texture, a break in slope, the destruction of terrestrial vegetation, the presence of debris lines, and a change in the type of vegetation growing along the banks.

Several wetland sample points along the banks of the delineated stream channels had problematic soils from fluvial sediments within floodplains, as indicators of hydrophytic vegetation and wetland hydrology were present. The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, was used to evaluate soils to determine these areas as wetlands. These areas were in landscape positions that are likely to collect or concentrate water, therefore the soils in these areas should be considered hydric.

6. LIMITATIONS

This report has been prepared for the use of Twin Platte Natural Resources District. It is intended for specific application to the proposed project and has been produced in accordance with generally accepted practices. If any changes occur within the Study Area, or regarding previously outlined methodologies or regulations, the information in this report cannot be considered valid unless it has been further reviewed and verified by Olsson.

7. LITERATURE CITED

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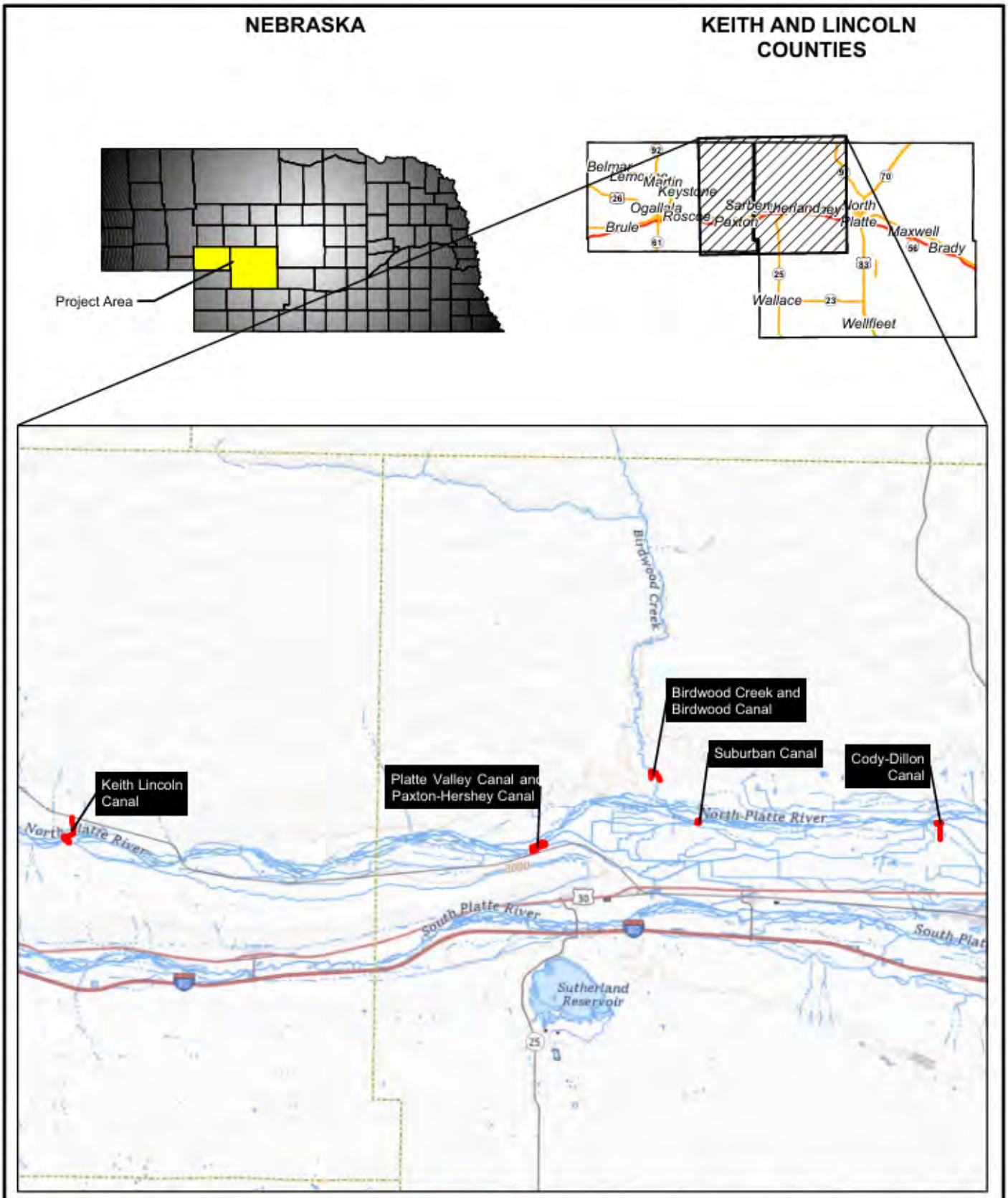
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APPENDIX A
Figures



North Platte Area Irrigation Canal Diversion Modernization Project

Keith and Lincoln counties, Nebraska

Olsson Project No. 022-04885

Location Map

Figure 1

F:\2022\04501-05000\022-04885\40-Design\GIS\Maps\025-08-06_ECC_Delinetaion_Maps.aprx PUBLISHED BY: mczerwinski DATE: September 30, 2025

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: USGS Topographic Imagery



N

0 1 2 4 Miles

1" = 4 Miles

Study Area
Map Grid Index
County Boundary
Municipal Boundary

North Platte Area Irrigation Canal Diversion Modernization Project

Keith and Lincoln counties, Nebraska

Olsson Project No. 022-04885

Site Index Map

Figure 2

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 150 300 600 Feet

1" = 600'

Keith Lincoln Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Site Map

Figure 2A

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N 0 150 300 600 Feet

1" = 600'

Platte Valley Canal and Paxton-Hershey Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Site Map

Figure 2B

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 150 300 600 Feet

1" = 600'

Birdwood Creek and Birdwood Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Site Map

Figure 2C

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 150 300 600

Feet

1" = 600'

Suburban Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Site Map

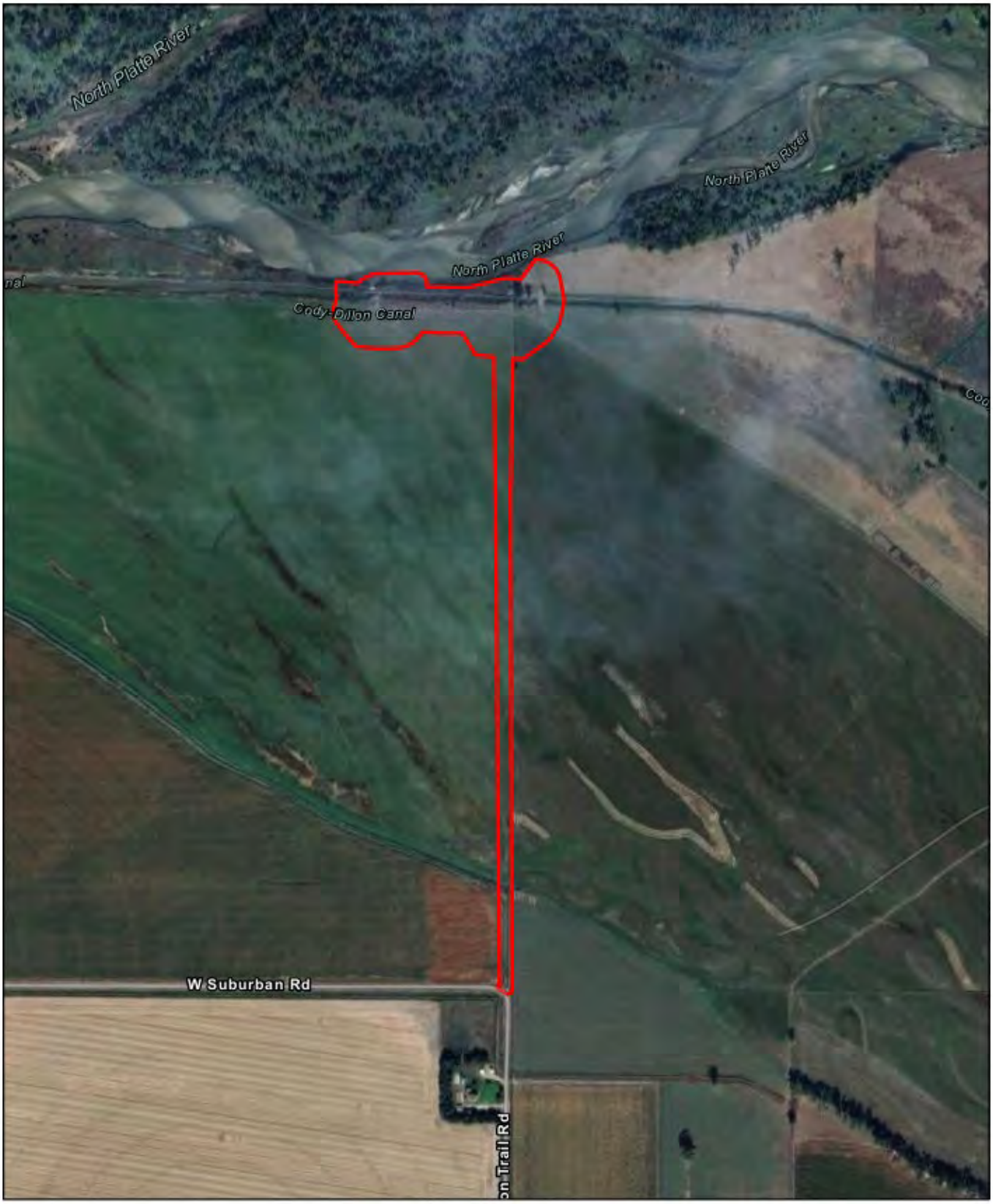
Figure 2D

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N 0 150 300 600 Feet

1" = 600'

Cody-Dillon Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Site Map

Figure 2E

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 1 2 4 Miles

1" = 4 Miles

Study Area
Map Grid Index
County Boundary
Municipal Boundary

North Platte Area Irrigation Canal Diversion Modernization Project

Keith and Lincoln counties, Nebraska

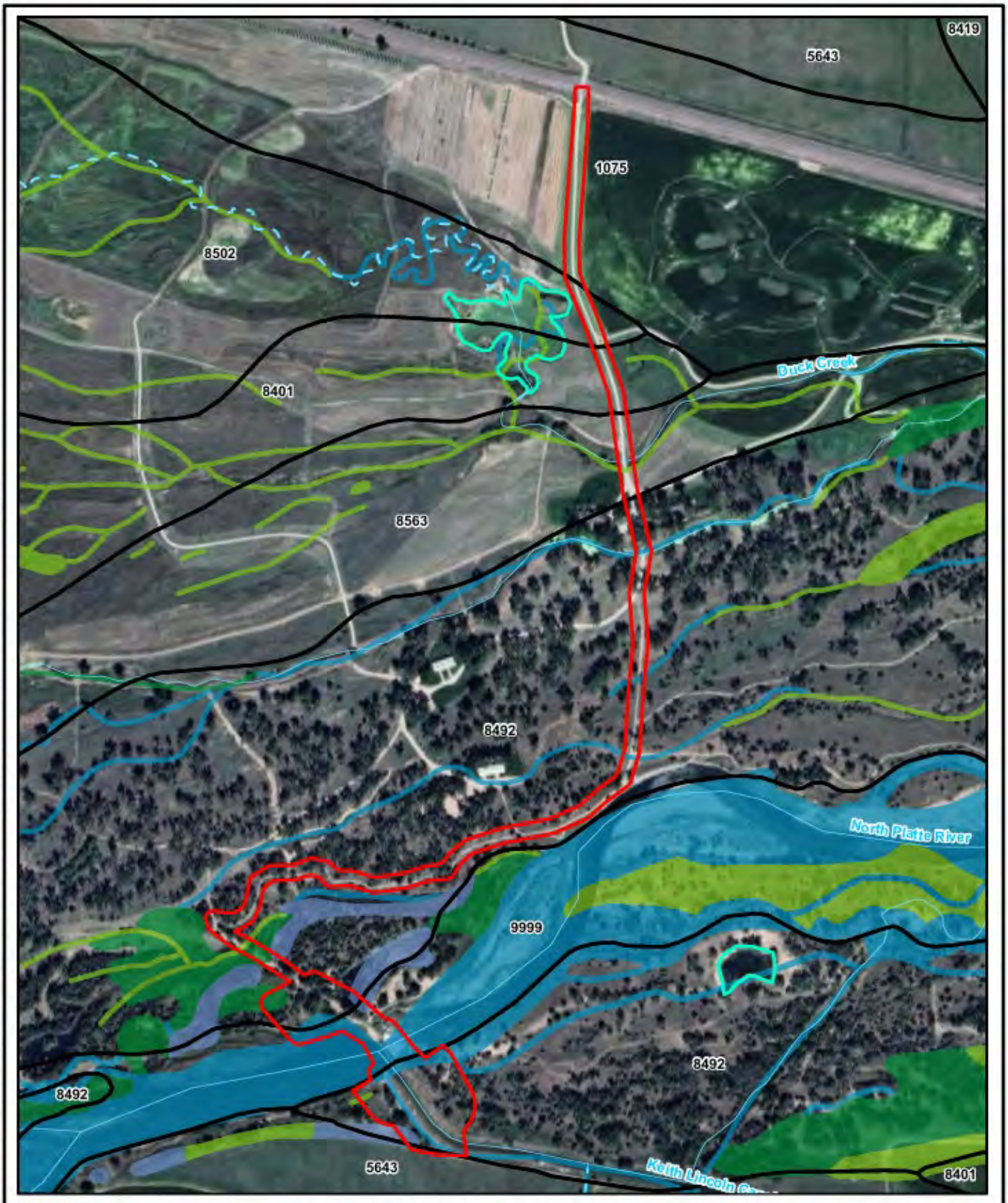
Olsson Project No. 022-04885

Natural Resources Index Map

Figure 3

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 150 300 600 Feet

1" = 600'

olsson

Keith Lincoln Canal Study Area
NHD Waterbody
SSURGO Soils

Flow Type (NHD)
Intermittent Stream
Other Flowlines

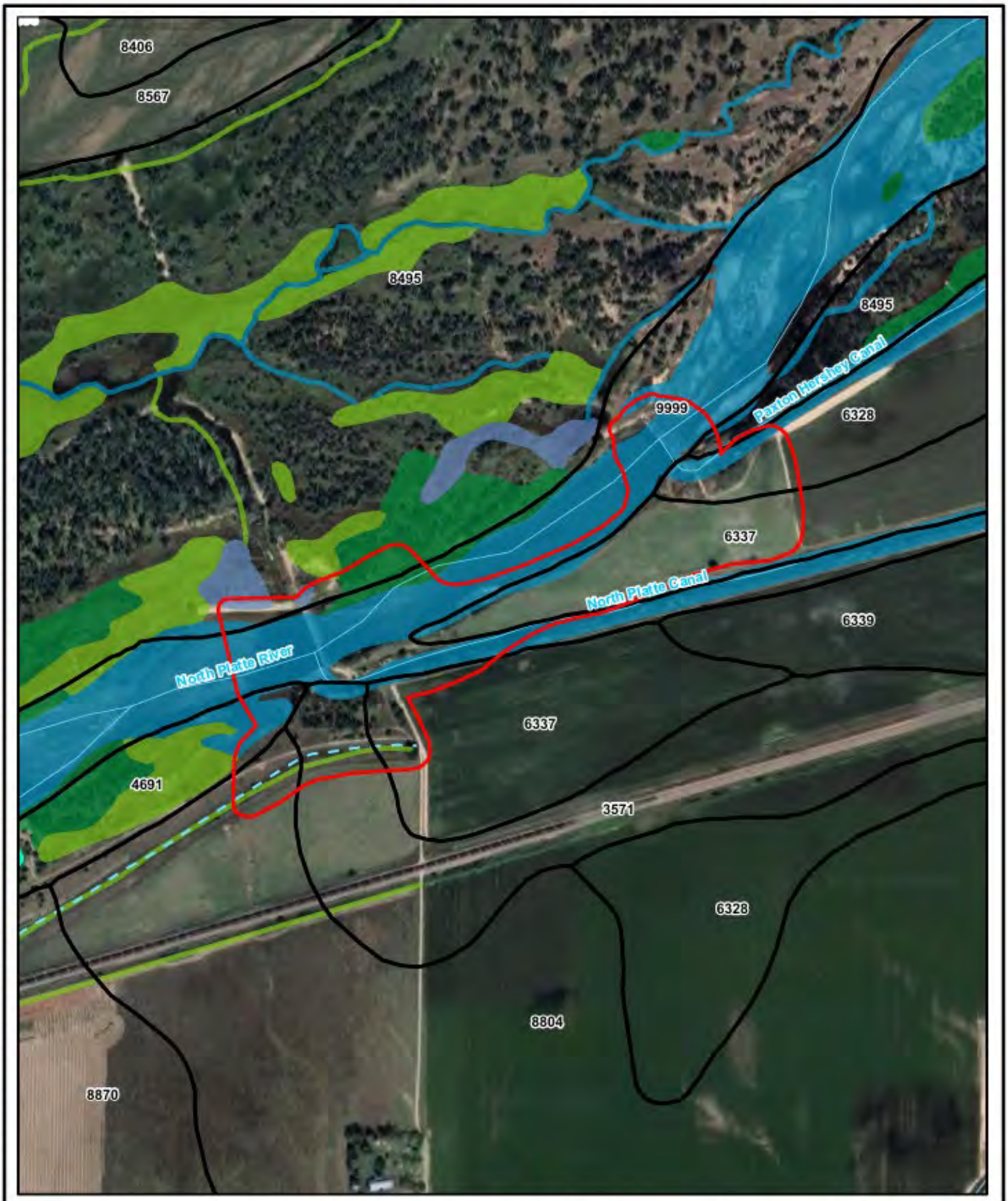
Wetland Class (NWI)
Freshwater Forested/Shrub Wetland
Freshwater Emergent Wetland
Freshwater Pond
Riverine Habitat

North Platte Area Irrigation Canal Diversion Modernization Project
Keith County, Nebraska
Olsson Project No. 022-04885
Natural Resources Map
Figure 3A

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NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 150 300 600 Feet

1" = 600'

olsson

Platte Valley Canal and Paxton-Hershey Canal Study Area

NHD Waterbody

SSURGO Soils

Flow Type (NHD)

Intermittent Stream

Other Flowlines

Wetland Class (NWI)

Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

Freshwater Pond

Riverine Habitat

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

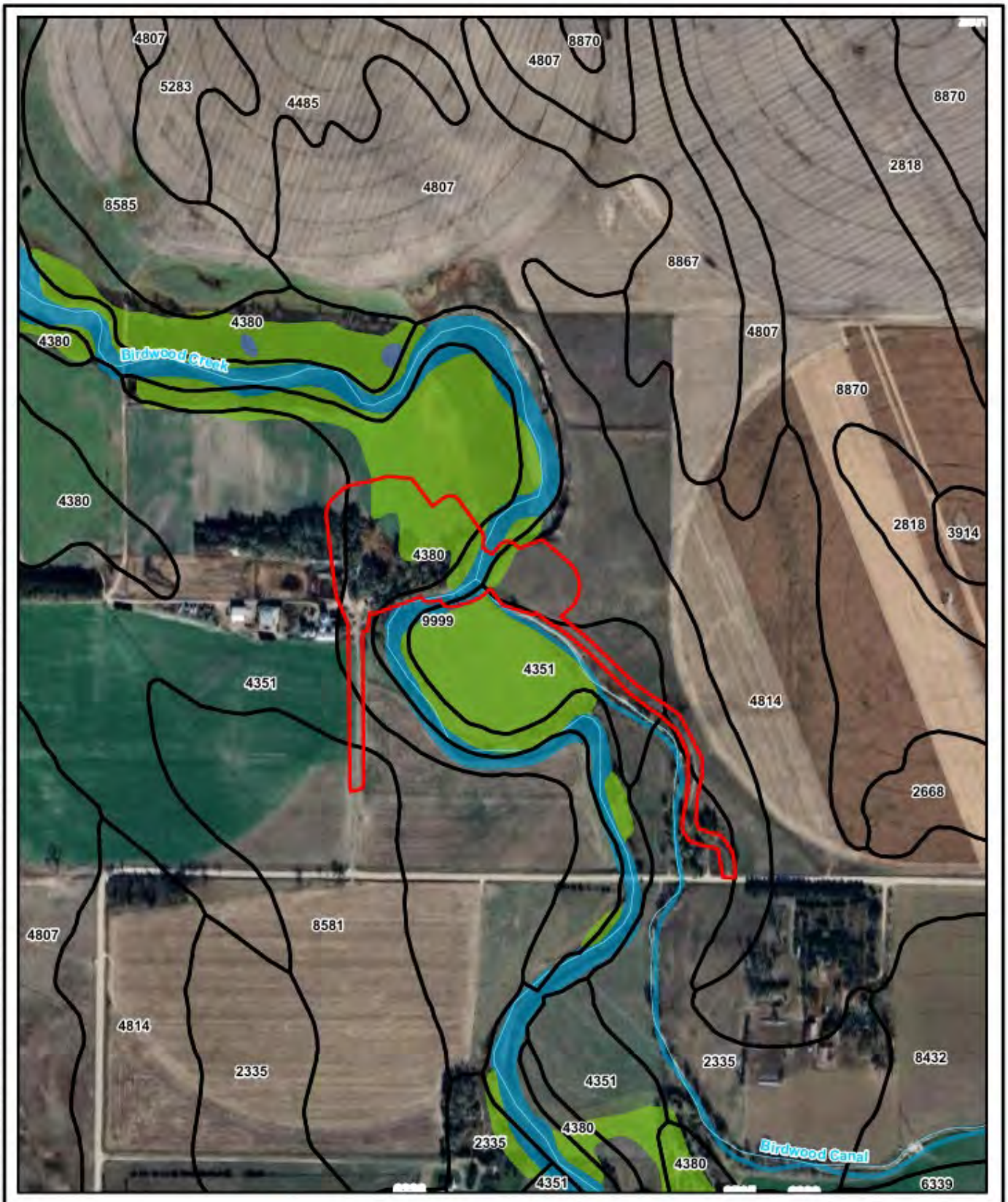
Natural Resources Map

Figure 3B

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NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 150 300 600 Feet

1" = 600'

olsson

Birdwood Creek and Birdwood Canal Study Area

SSURGO Soils

Flow Type (NHD)

Other Flowlines

Wetland Class (NWI)

Freshwater Emergent Wetland

Freshwater Pond

Riverine Habitat

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

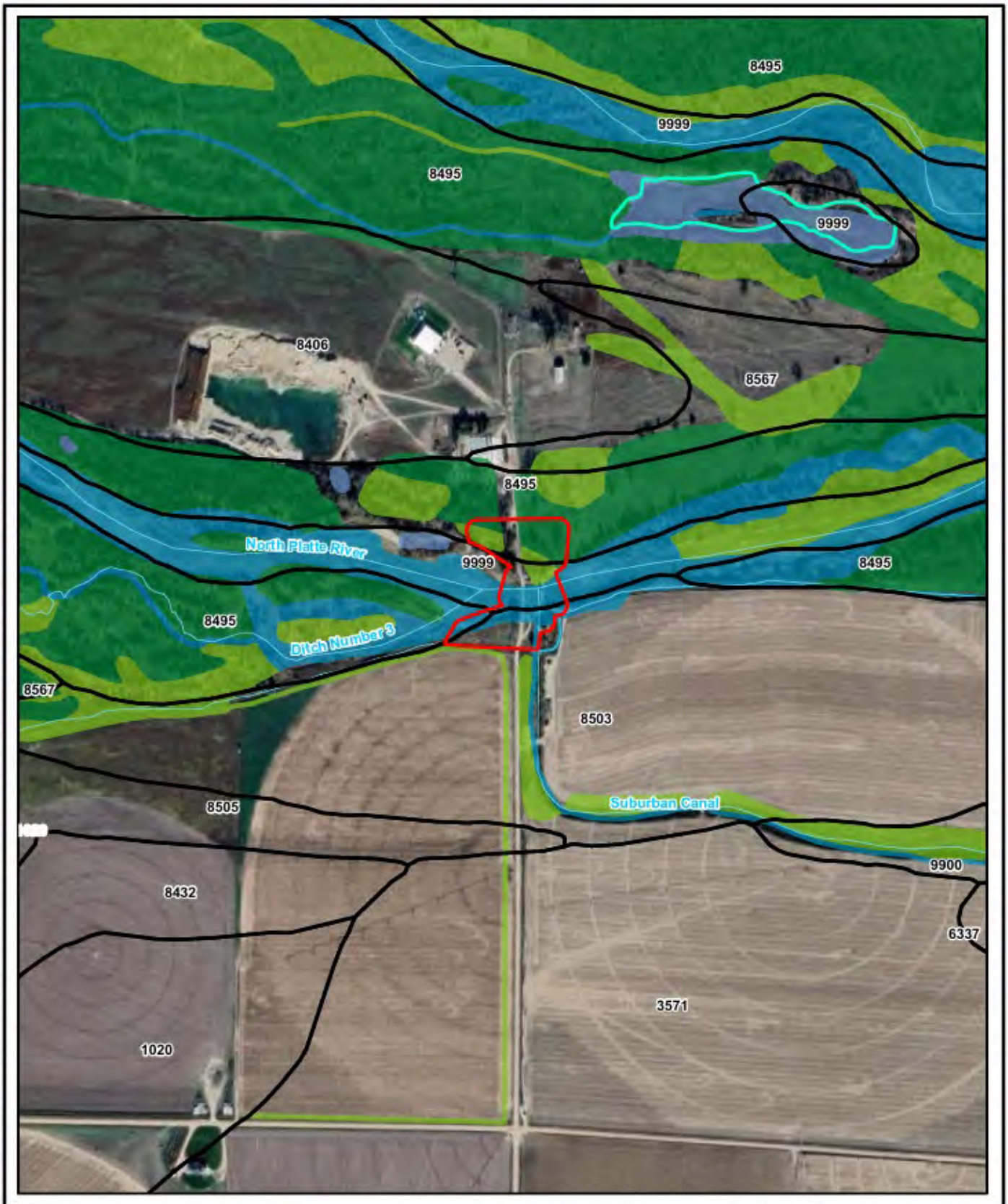
Natural Resources Map

Figure 3C

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N 0 150 300 600 Feet
1" = 600'

olsson

Suburban Canal Study Area
NHD Waterbody
SSURGO Soils

Flow Type (NHD)
Other Flowlines

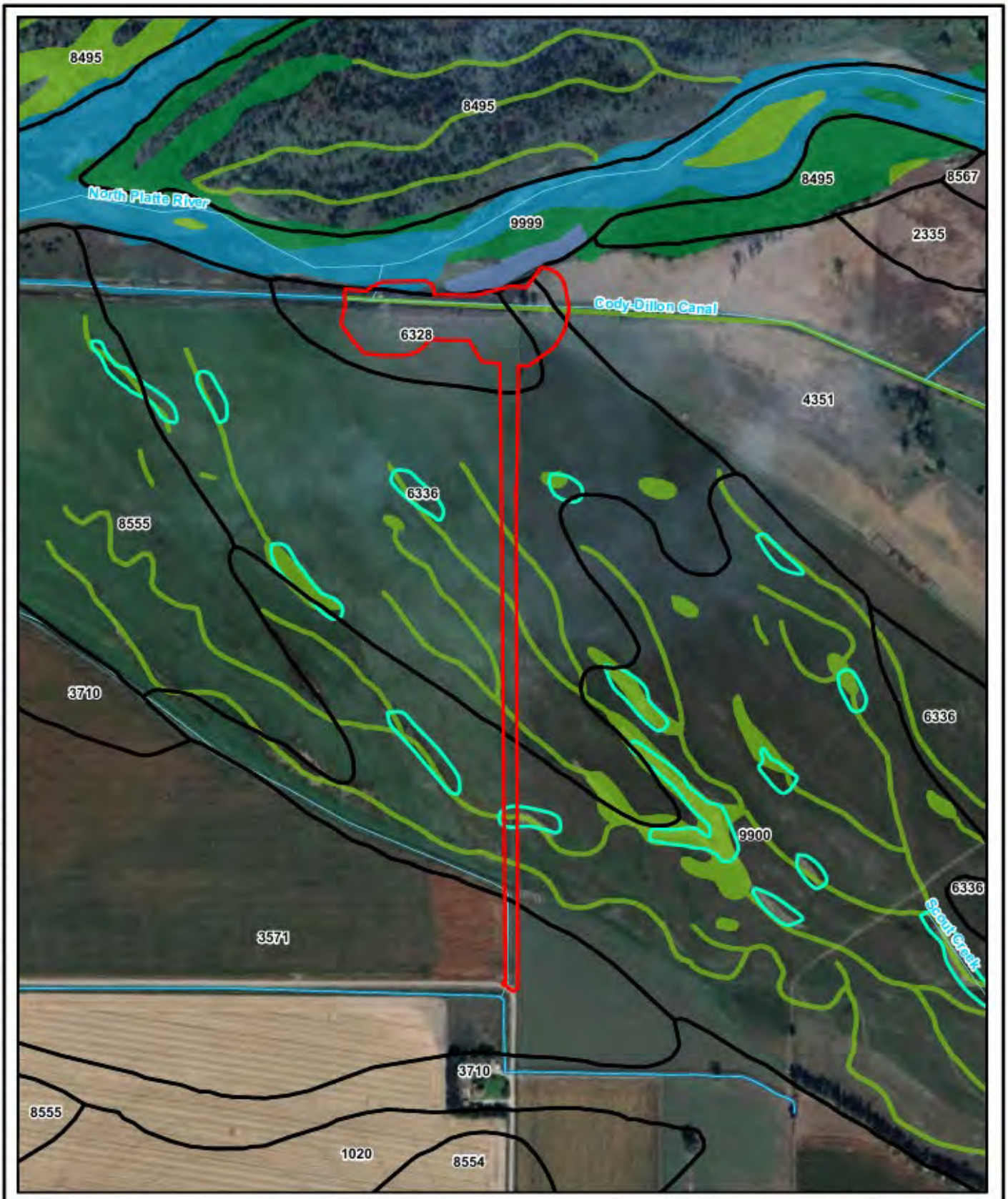
Wetland Class (NWI)
Freshwater Forested/Shrub Wetland
Freshwater Emergent Wetland
Freshwater Pond
Riverine Habitat

North Platte Area Irrigation Canal Diversion Modernization Project
Lincoln County, Nebraska
Olsson Project No. 022-04885
Natural Resources Map
Figure 3D

F:\2022\04501-05000\022-04885\40-Design\GIS\Maps\025-08-06_ECC_Delineation_Maps.aprx PUBLISHED BY: mczerwinski DATE: September 30, 2025

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 150 300 600

Feet

1" = 600'

olsson

Cody-Dillon Canal Study Area

NHD Waterbody

SSURGO Soils

Flow Type (NHD)

Other Flowlines

Wetland Class (NWI)

Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

Freshwater Pond

Riverine Habitat

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

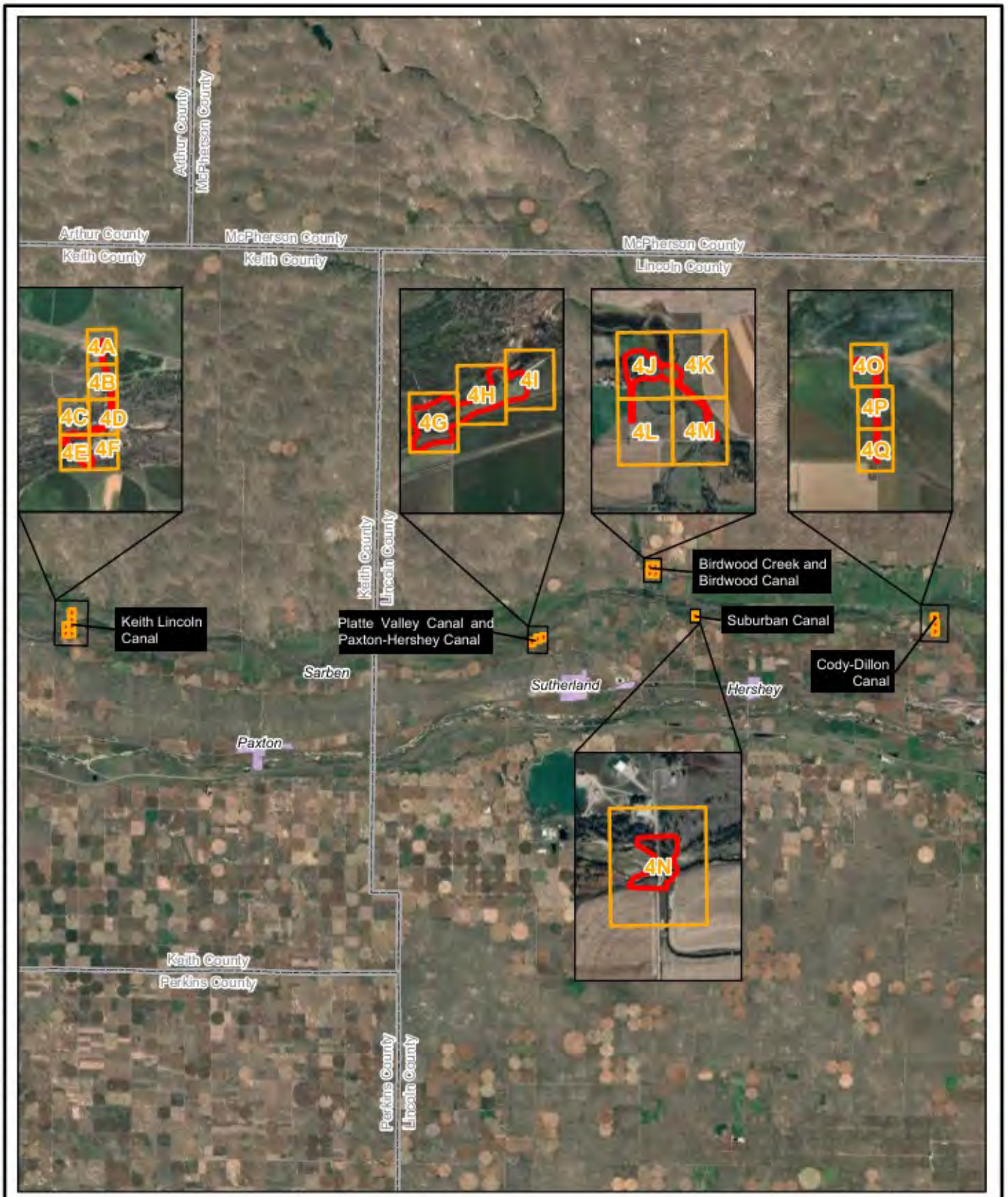
Natural Resources Map

Figure 3E

F:\2022\04501-05000\022-04885\40-Design\GIS\Maps\025-08-06_ECC_Delineation_Maps.aprx PUBLISHED BY: mczerwinski DATE: October 02, 2025

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 1 2 4 Miles

1" = 4 Miles

Study Area
Map Grid Index
County Boundary
Municipal Boundary

North Platte Area Irrigation Canal Diversion Modernization Project

Keith and Lincoln counties, Nebraska

Olsson Project No. 022-04885

Delineation Index Map

Figure 4

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Keith Lincoln Canal
Study Area

North Platte Area Irrigation Canal
Diversion Modernization Project
Keith County, Nebraska
Olsson Project No. 022-04885
Delineation Map
Figure 4A

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Sample Point

Photo Point

Channel

Keith Lincoln Canal Study Area

PEMA/C Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4B

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Keith Lincoln Canal
Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4C

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Sample Point

Photo Point

Keith Lincoln Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Delineation Map

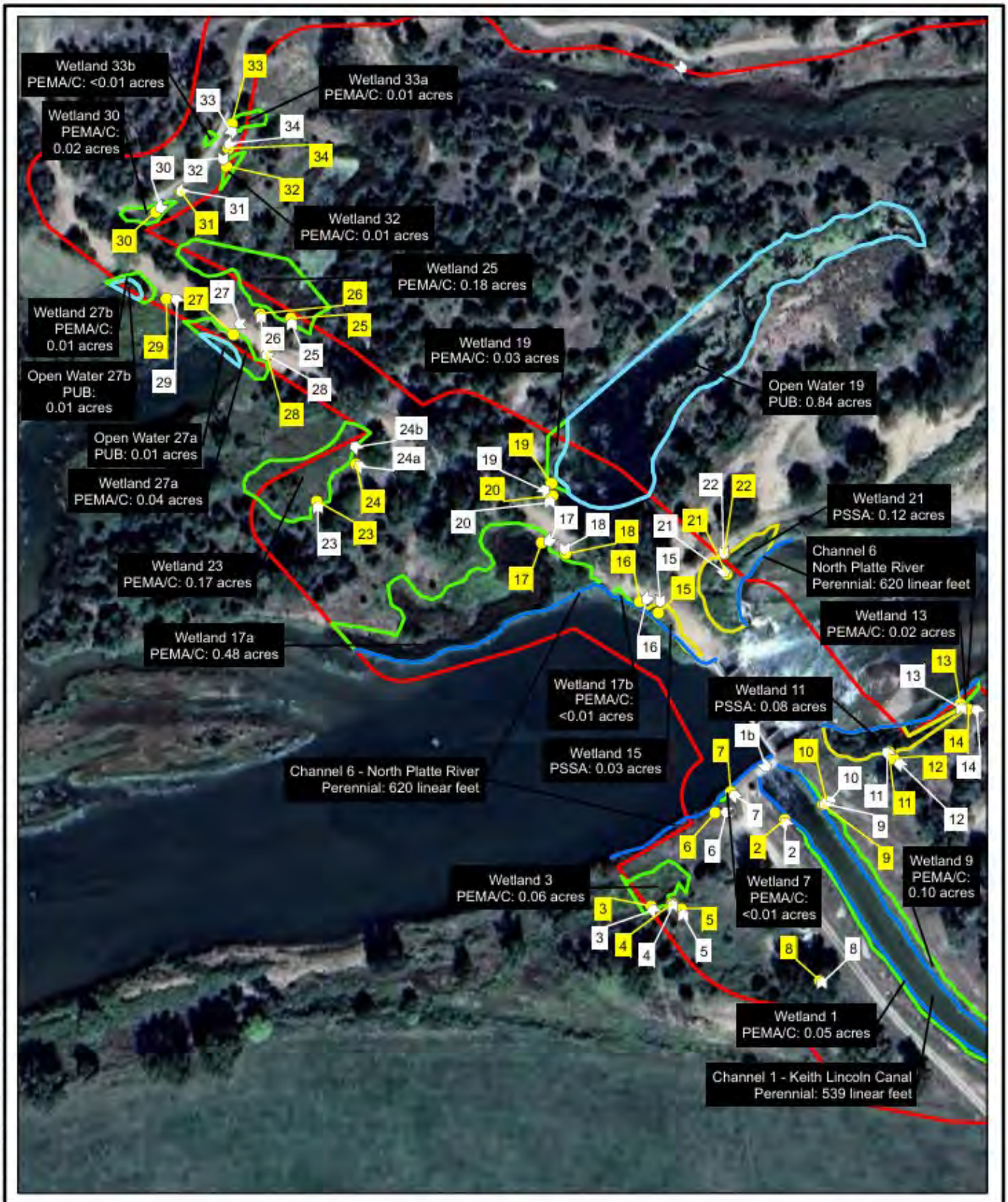
Figure 4D

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150 Feet

1" = 150'

olsson

- Sample Point
- Photo Point
- Channel
- Keith Lincoln Canal Study Area
- Open Water
- PEMA/C Wetland
- PSSA Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4E

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 37.5 75 150 Feet

1" = 150'

Sample Point
Photo Point
Channel
Keith Lincoln Canal Study Area
PEMA/C Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Keith County, Nebraska

Olsson Project No. 022-04885

Delineation Map

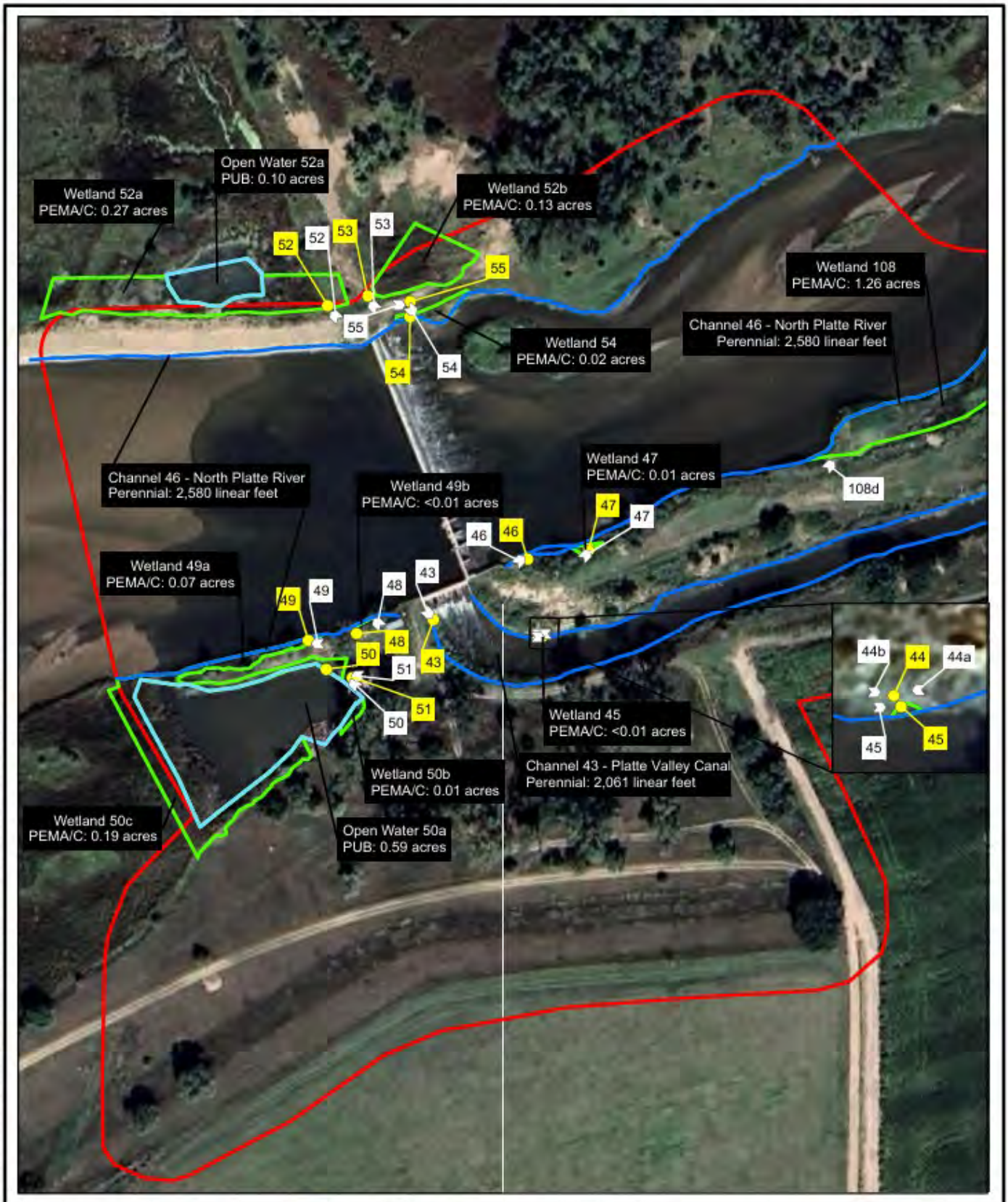
Figure 4F

olsson

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NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



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N

0 37.5 75 150 Feet

1" = 150'

Sample Point
Photo Point
Channel

Platte Valley Canal and Paxton-Hershey Canal Study Area
Open Water
PEMA/C Wetland

North Platte Area Irrigation Canal Diversion Modernization Proejct

Lincoln County, Nebraska

Olsson Project No. 022-04885

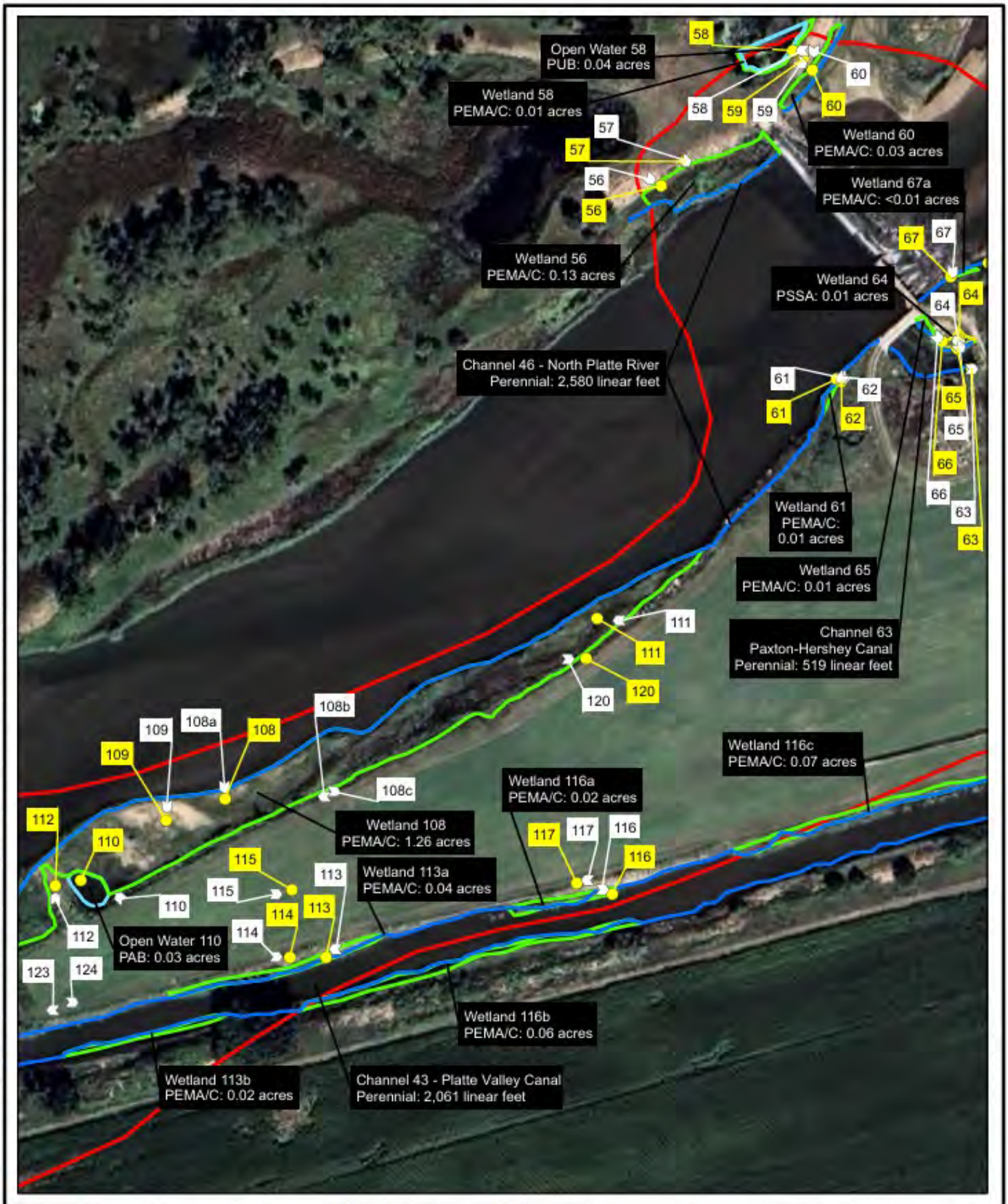
Delineation Map

Figure 4G

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



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N

0 37.5 75 150 Feet

1" = 150'

Sample Point
Photo Point
Channel
Platte Valley Canal and Paxton-Hershey Canal Study Area
Open Water
PEMA/C Wetland
PSSA Wetland

olsson

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4H

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 37.5 75 150

Feet

1" = 150'

Sample Point

Photo Point

Channel

Platte Valley Canal and Paxton-Hershey Canal Study Area

PEMA/C Wetland

olsson

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4I

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NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



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N

0 37.5 75 150 Feet

1" = 150'

olsson

- Sample Point
- Photo Point
- Channel
- Birdwood Creek and Birdwood Canal Study Area
- PEMA/C Wetland
- PFOA Wetland
- PSSA Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4J

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 37.5 75 150

Feet

1" = 150'

Birdwood Creek and
Birdwood Canal
Study Area

North Platte Area Irrigation Canal
Diversion Modernization Project
Lincoln County, Nebraska
Olsson Project No. 022-04885
Delineation Map
Figure 4K

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Birdwood Creek and Birdwood Canal Study Area

olsson

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4L

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150

Feet

1" = 150'

Birdwood Creek and Birdwood Canal Study Area

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

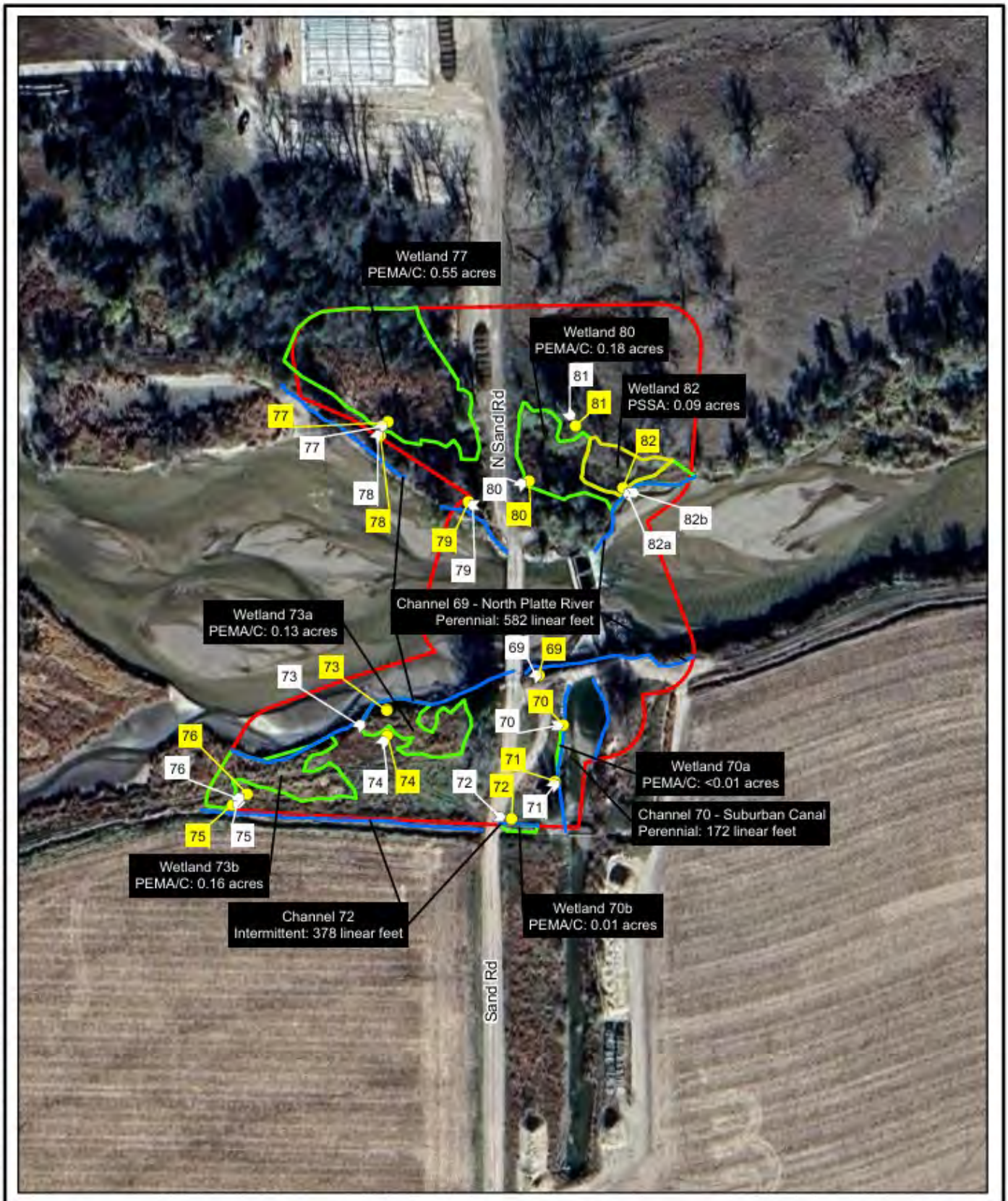
Figure 4M

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N 0 37.5 75 150 Feet
1" = 150'

Sample Point
Photo Point
Channel
Suburban Canal Study Area
PEMA/C Wetland
PSSA Wetland

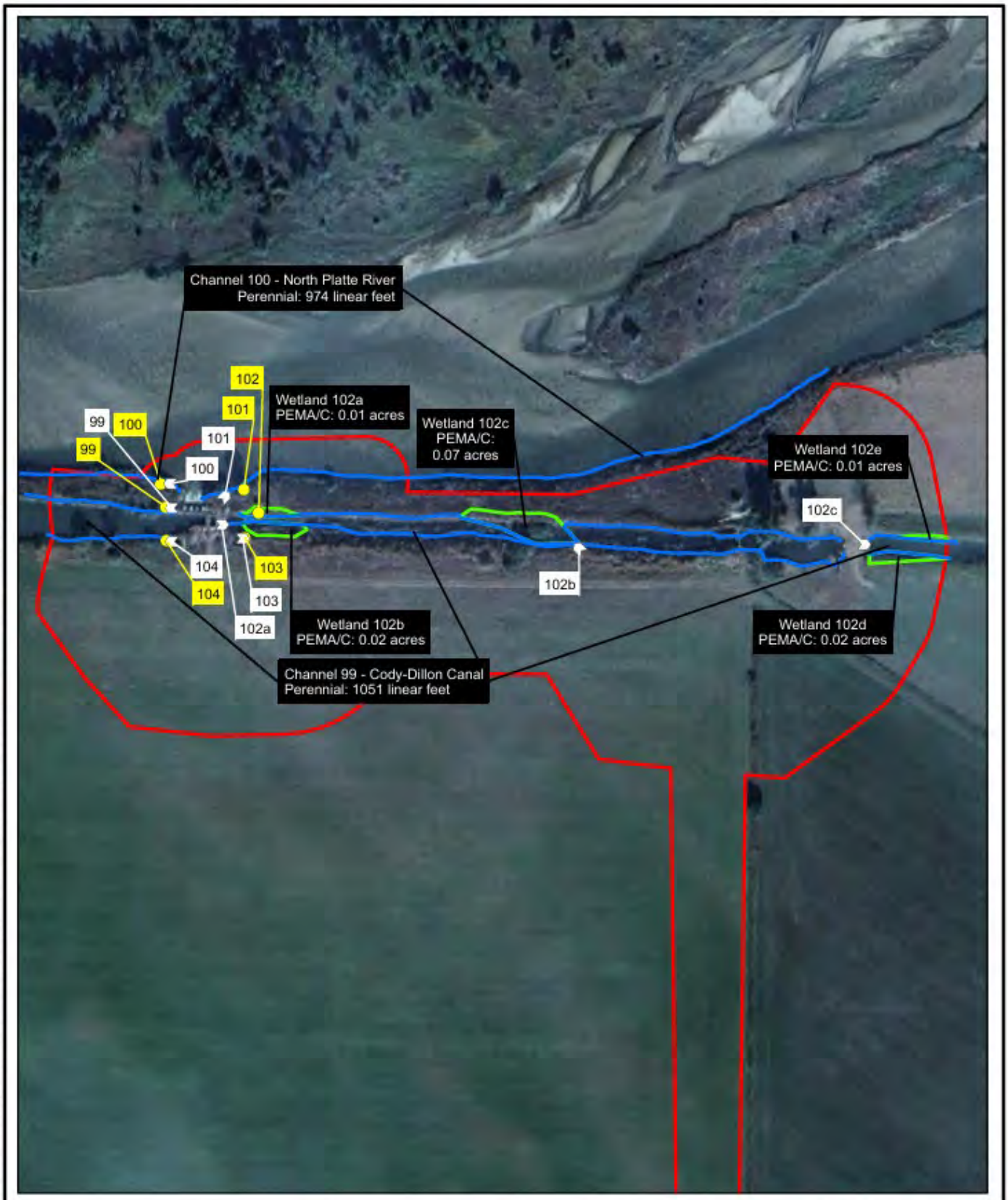
North Platte Area Irrigation Canal Diversion Modernization Project
Lincoln County, Nebraska
Olsson Project No. 022-04885
Delineation Map
Figure 4N

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150 Feet

1" = 150'

Sample Point
Photo Point
Channel
Cody-Dillon Canal Study Area
PEMA/C Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

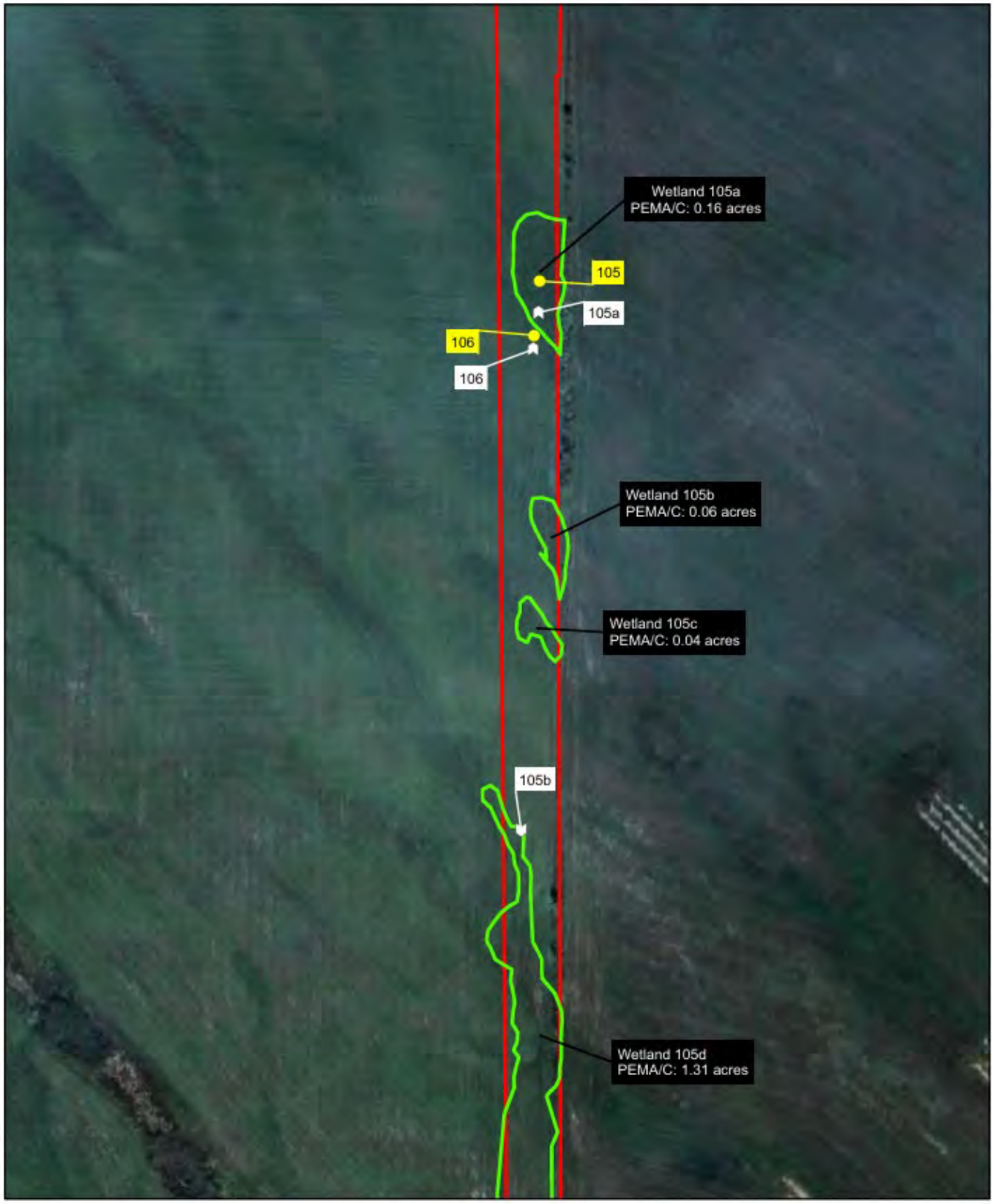
Figure 4O

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

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N

0 37.5 75 150 Feet

1" = 150'

Sample Point

Photo Point

Cody-Dillon Canal Study Area

PEMA/C Wetland

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

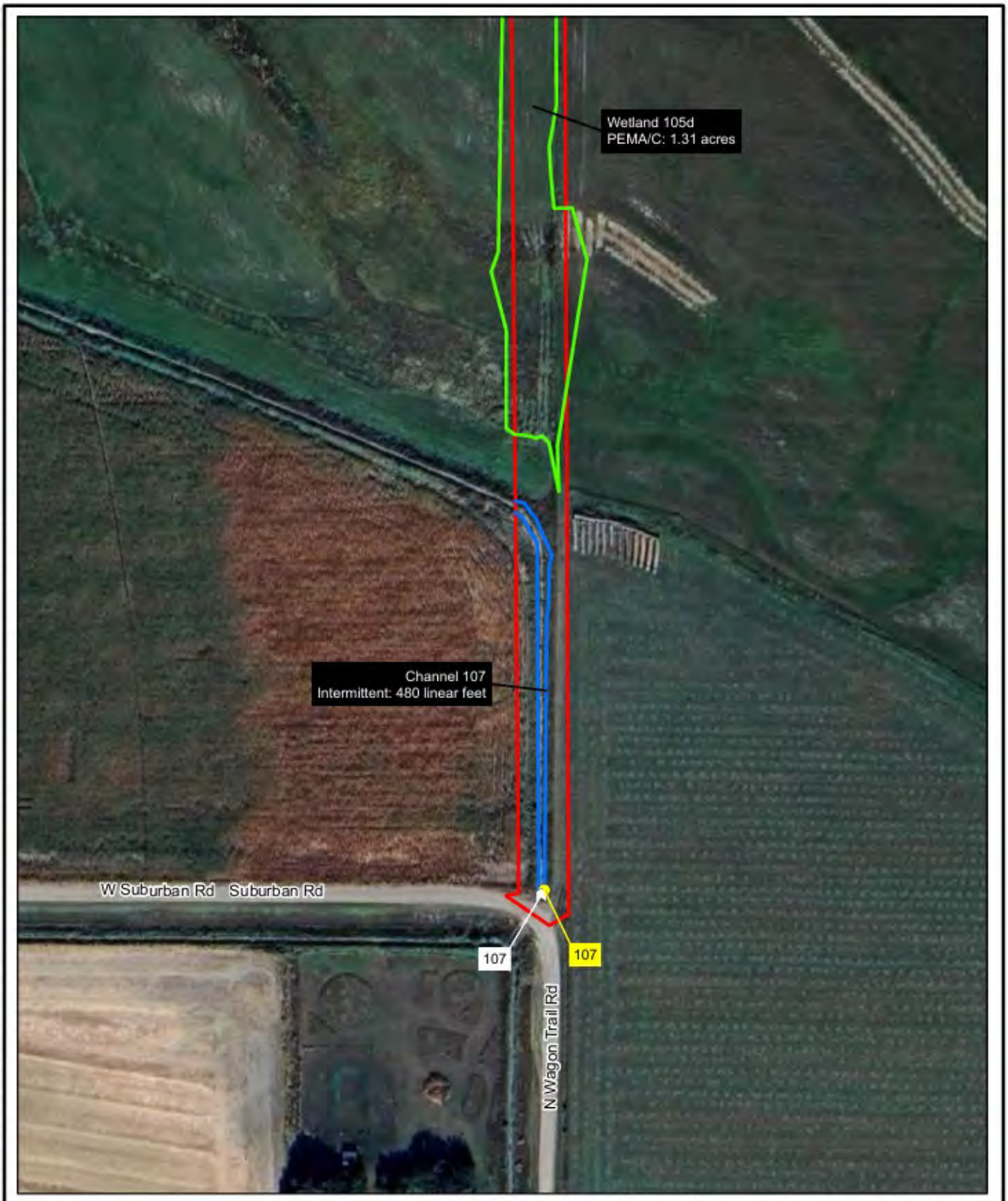
Delineation Map

Figure 4P

olsson

NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite



N

0 37.5 75 150

Feet

1" = 150'

Sample Point

Photo Point

Channel

Cody-Dillon Canal Study Area

PEMA/C Wetland

olsson

North Platte Area Irrigation Canal Diversion Modernization Project

Lincoln County, Nebraska

Olsson Project No. 022-04885

Delineation Map

Figure 4Q

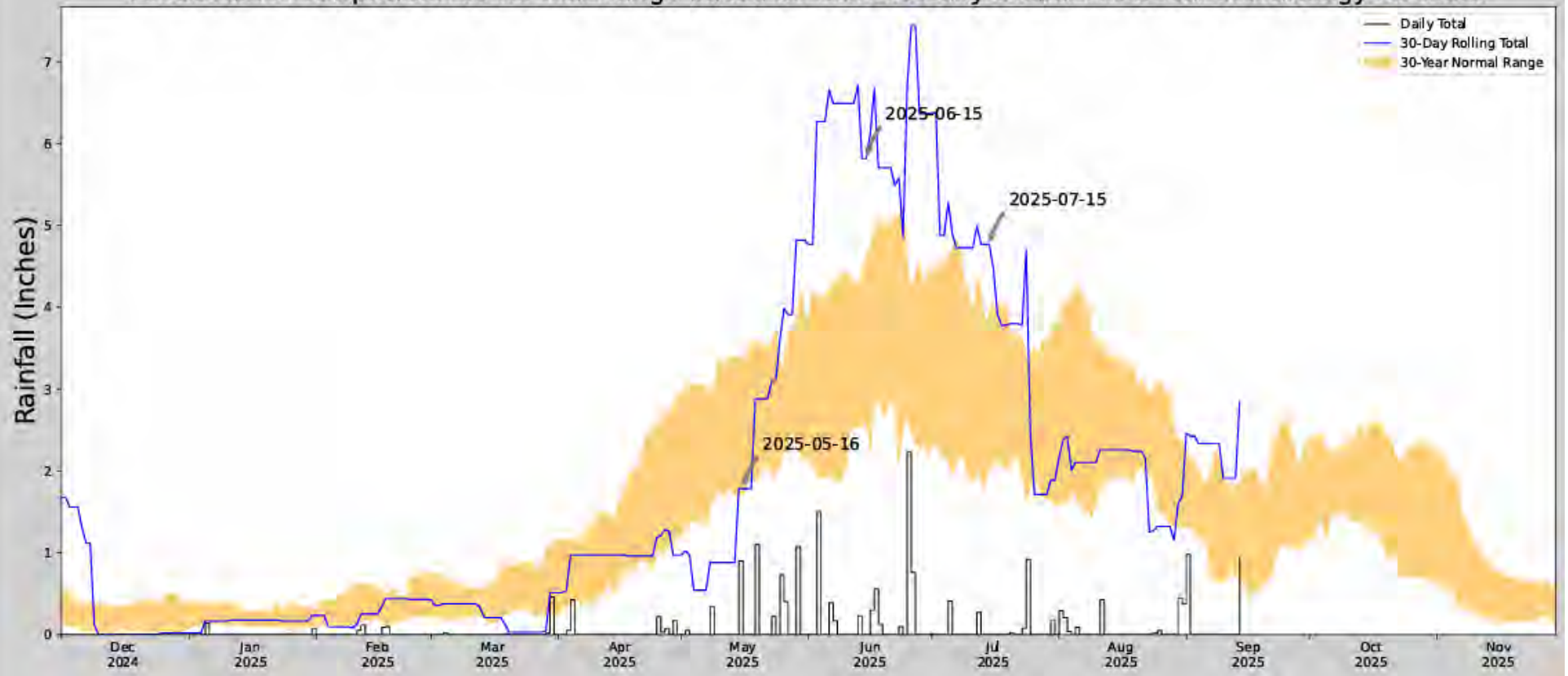
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NAD 1983 StatePlane Nebraska FIPS 2600 Feet

Basemap: Google Satellite

APPENDIX B
Antecedent Precipitation Tool Results

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.19441, -101.16251
Observation Date	2025-07-15
Elevation (ft)	2947.146
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-07-15	2.076378	3.977559	4.767717	Wet	3	3	9
2025-06-15	2.636614	4.622835	5.814961	Wet	3	2	6
2025-05-16	1.703543	3.401969	1.783465	Normal	2	1	2
Result							Wetter than Normal - 17

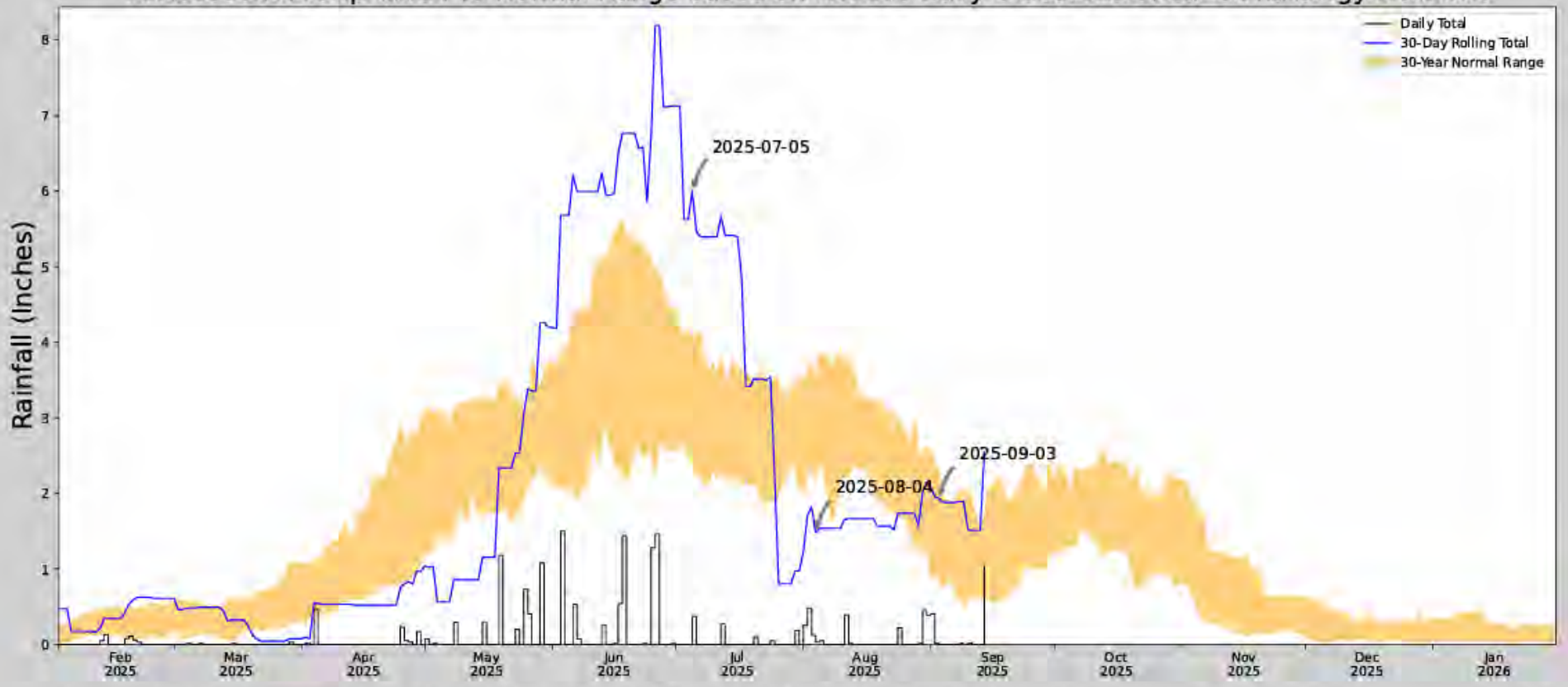
Figures and tables made by the Antecedent Precipitation Tool Version 3.0

US Army Corps of Engineers.
ERDC

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
HERSHEY 6.0 NW	41.221, -101.0835	2945.866	4.499	1.28	2.03	6987	90
HERSHEY 5.6 NW	41.2286, -101.0567	2965.879	1.488	20.013	0.699	3	0
SUTHERLAND 0.7 N	41.1666, -101.1259	3004.921	4.357	59.055	2.218	389	0
SUTHERLAND 0.9 NW	41.1675, -101.1375	3083.99	4.642	138.124	2.73	28	0
SUTHERLAND 1.4 W	41.1612, -101.152	3027.887	5.455	82.021	2.902	52	0
HERSHEY 0.2 WSW	41.1566, -101.0043	2905.84	6.063	40.026	2.971	3	0
HERSHEY 5 SSE	41.1056, -100.9775	2952.1	9.694	6.234	4.423	3728	0
PAXTON	41.1228, -101.3564	3075.131	15.732	129.265	9.113	163	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.19441, -101.16251
Observation Date	2025-09-03
Elevation (ft)	2947.146
Drought Index (PDSI)	Mild drought (2025-08)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-03	0.866929	2.297638	1.929134	Normal	2	3	6
2025-08-04	2.15748	3.607087	1.484252	Dry	1	2	2
2025-07-05	2.366536	4.067717	5.996063	Wet	3	1	3
Result							Normal Conditions - 11

Figures and tables made by the Antecedent Precipitation Tool Version 3.0

US Army Corps of Engineers.
ERDC

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SUTHERLAND 0.9 NW	41.1675, -101.1375	3083.99	2.269	136.844	1.332	7250	69
SUTHERLAND 0.7 N	41.1666, -101.1259	3004.921	0.607	79.069	0.321	127	0
SUTHERLAND 1.4 W	41.1612, -101.152	3027.887	0.871	56.103	0.441	53	0
HERSHEY 6.0 NW	41.221, -101.0835	2945.866	4.642	138.124	2.73	29	21
SUTHERLAND 7.8 WSW	41.0829, -101.2404	3104.003	7.928	20.013	3.726	10	0
PAXTON	41.1228, -101.3564	3075.131	11.801	8.859	5.415	3792	0
HERSHEY 5 SSE	41.1056, -100.9775	2952.1	9.36	131.89	5.446	92	0

APPENDIX C
Wetland Determination Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **1**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18322168** | Long: **-101.4891142** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 1 is a fringe Palustrine Emergent Temporarily Flooded (PEMA/C) wetland along the bank of Channel 1, the Keith Lincoln Canal, a perennial stream channel with an ordinary high-water mark approximately 30 feet wide. This area is adjacent to an Other Flowline depicted by the National Hydrography Database (NHD) and a riverine habitat depicted by the National Wetlands Inventory (NWI); however, it does not overlap these mapped features.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	35	X	FACW
2. *Persicaria maculosa*	24	X	FACW
3. *Hordeum jubatum*	10		FACW
4. *Cannabis sativa*	10		UPL
5. *Chenopodium album*	5		FACU
6. *Echinochloa crus-galli*	5		FAC
7. *Amaranthus tuberculatus*	5		FAC
8. *Ranunculus abortivus*	5		FAC
9. *Schoenoplectus tabernaemontani*	1		OBL
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 1, 1b

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 2/2	100					Sandy Loam	
12-22	10YR 4/2	100					Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches)	6-7	
Water Table Present?	Yes X	No ___	Depth (inches)	Surface	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0-22	**Wetland Hydrology Present?** Yes X No ___

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

Remarks:

Saturation and surface water are assumed to be associated with the water table.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **2**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-6**

Subregion (LRR): **G** | Lat: **41.18408527** | Long: **-101.4902619** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
Sample Point (SP) 2 is an upland out-point to Wetland 1, located on the southern bank of the Keith Lincoln Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus tectorum*	70	X	UPL
2. *Sporobolus cryptandrus*	20		FACU
3. *Cannabis sativa*	5		UPL
4. *Helianthus annuus*	5		FACU
5. *Verbascum thapsus*	1		UPL
6.			
7.			
8.			
9.			
10.			
	101 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 2

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

No indicators of wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **3**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18379792** | Long: **-101.4908261** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater Emergent**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 3 is a PEMA/C wetland located in a depression. This area is depicted by the NWI as a freshwater emergent wetland. Wetland 3 extends west outside the Keith Lincoln Canal Study Area.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	10	X	FACW
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	89	X	OBL
2. *Solidago gigantea*	10		FAC
3. *Toxicodendron radicans*	1		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 3

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	Depth (inches)	1-3
Water Table Present?	Yes	X	No	Depth (inches)	Yes
Saturation Present? (includes capillary fringe)	Yes	X	No	Depth (inches)	Assumed

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

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

Remarks:

Surface water and saturation are assumed to be associated with a high water table in this area.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **4**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **3-5**

Subregion (LRR): **G** | Lat: **41.18380737** | Long: **-101.4907369** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 4 documents an upland area adjacent to Wetland 3 with a vegetative community dominated by saplings and shrubs. This area has a mix of hydrophytic and non-hydrophytic vegetation but does not pass the dominance test or prevalence index worksheet.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	35	X	FACW
2. *Juniperus virginiana*	35	X	UPL
3.			
4.			
5.			
	70 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Rosa arkansana*	34	X	FACU
2. *Solidago gigantea*	33	X	FAC
3. *Toxicodendron radicans*	33	X	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	X	FAC
2.			
	5 = Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	35	x 2 =	70	
FAC species	38	x 3 =	114	
FACU species	67	x 4 =	268	
UPL species	35	x 5 =	175	
Column Totals:	175	(A)	627	(B)

Prevalence Index = B/A = 3.58

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 4

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	7.5YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

No indicators of wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **5**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18379127** | Long: **-101.4906969** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 5 is an upland out-point to Wetland 3.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juniperus virginiana*	10	X	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	10	X	FACW
2. *Morus rubra*	5	X	FACU
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago altissima*	15	X	FACU
2. *Rosa arkansana*	15	X	FACU
3. *Carex nebrascensis*	15	X	OBL
4. *Nepeta cataria*	15	X	FACU
5. *Cirsium arvense*	15	X	FACU
6. *Verbascum thapsus*	5		UPL
7. *Toxicodendron radicans*	5		FACU
8.			
9.			
10.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	X	FAC
2.			
	5	= Total Cover	

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 5

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	7.5YR 7/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No indicators of wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **6**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **8-10**

Subregion (LRR): **G** | Lat: **41.1841025** | Long: **-101.490559** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 6 is an upland out-point to Wetland 7 located on the southern bank of Channel 6, North Platte River. The North Platte River is a perennial channel with an OHWM approximately 300 feet wide in this area. This area is depicted by the NHD as an Other Flowline and by the NWI as a riverine habitat; however, the area lacks sufficient wetland indicators and is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Acer saccharinum*	2	X	FAC
2.			
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus tectorum*	40	X	UPL
2. *Sporobolus cryptandrus*	25	X	FACU
3. *Setaria faberi*	25	X	UPL
4. *Glycyrrhiza lepidota*	2		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	92 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 8%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 6

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

SP 6 is elevated above Wetland 7. The bank in this area is too steep to support wetland conditions.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **7**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank shelf** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.18417201** | Long: **-101.4904945** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 7 is a PEMA/C wetland along a bank shelf on the southern bank of the North Platte River. Wetland 7 is confined to the shelf of the riverbank. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	90	X	FACW
2. *Echinochloa crus-galli*	5		FAC
3. *Rosa arkansana*	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 7

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					Silty Loam	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Rip rap

Depth (inches): 4

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

Remarks:

A restrictive layer of rip rap is present at 4 inches. Soils are assumed to be hydric due to the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 __	No X	Depth (inches)	__	**Wetland Hydrology Present?** **Yes** X **No** __

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

Remarks:

Two secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **8**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18356837** | Long: **-101.4901005** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 8 documents an upland depression in a forested area. This area has a mix of hydrophytic and non-hydrophytic vegetation but does not pass the dominance test or prevalence index worksheet.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	30	X	FAC
2. *Morus rubra*	20		FACU
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Urtica dioica*	20	X	FAC
2. *Nepeta cataria*	20	X	FACU
3. *Symphoricarpos occidentalis*	15	X	UPL
4. *Bromus inermis*	10		UPL
5. *Toxicodendron radicans*	10		FACU
6. *Cannabis sativa*	5		UPL
7. *Cirsium arvense*	5		FACU
8.			
9.			
10.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	X	FAC
2. *Parthenocissus quinquefolia*	5	X	FACU
	10	= Total Cover	

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	55	x 3 =	165	
FACU species	60	x 4 =	240	
UPL species	30	x 5 =	150	
Column Totals:	145	(A)	555	(B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 8

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Sandy Loam	
3-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- 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? (includes capillary fringe)	Yes _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** **Yes** _____ **No** X

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

Remarks:

This area lacks sufficient wetland hydrology indicators.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **9**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **None** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.18413441** | Long: **-101.4901018** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 9 is a PEMA/C wetland fringe along Channel 1, the Keith Lincoln Canal, a perennial channel. The Keith Lincoln Canal is depicted by the NHD as an Other Flowline.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	50	X	FACW
2. *Echinochloa crus-galli*	50	X	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 9

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 4/2	100					Sandy Loam	
5-22	10YR 4/2	100					Loamy Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- X 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** Yes X No ___

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

Remarks:

Two secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **10**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-10**

Subregion (LRR): **G** | Lat: **41.18415006** | Long: **-101.4900875** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 10 is an upland out-point to Wetland 9. This point is at the top of the bank.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	35	X	FACW
2. *Cannabis sativa*	20	X	UPL
3. *Bassia scoparia*	20	X	FACU
4. *Bromus tectorum*	20	X	UPL
5. *Setaria faberi*	5		UPL
6. *Amaranthus retroflexus*	2		FACU
7.			
8.			
9.			
10.			
	102 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 10

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/3	100					Loamy Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

This area is elevated above Wetland 9 at the top of the bank. No indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **11**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Shelf** | Local relief (concave, convex, none): **None** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.18430768** | Long: **-101.4898221** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

Wetland 11 is a floodplain Palustrine Scrub Shrub Temporarily Flooded (PSSA) wetland on a bank shelf on the southeast bank of the North Platte River. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	10	X	FAC
2. *Elaeagnus angustifolia*	15	X	FACU
3. *Salix interior*	30	X	FACW
4.			
5.			
	55	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Elaeagnus angustifolia*	10	X	FACU
2. *Populus deltoides*	10	X	FAC
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	50	X	FACW
2. *Solidago gigantea*	20	X	FAC
3. *Rosa arkansana*	10		FACU
4. *Poa pratensis*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 11

SOIL

Sampling Point: 11

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Rock

Depth (inches): Surface

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

Remarks:

A restrictive layer of rock is present at the surface. Soils are assumed to be hydric due to the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- ___ Geomorphic Position (D2)
- X 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** X **No** ___

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

Remarks:

Two secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **12**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **10-15**

Subregion (LRR): **G** | Lat: **41.18428715** | Long: **-101.4898001** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP12 is an upland out-point to Wetland 11 located at the top of the bank on the southeast side of the North Platte River. This area is depicted as a riverine habitat on the NWI; however, no wetland indicators are observed and this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Elaeagnus angustifolia*	10	X	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Elaeagnus angustifolia*	10	X	FACU
2. *Salix interior*	10	X	FACW
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	35	X	UPL
2. *Bromus tectorum*	20	X	UPL
3. *Verbascum thapsus*	10		UPL
4. *Cannabis sativa*	5		UPL
5. *Nepeta cataria*	5		FACU
6. *Solidago altissima*	5		FACU
7. *Thinopyrum intermedium*	5		UPL
8. *Ambrosia psilostachya*	3		FACU
9. *Mirabilis nyctaginea*	2		UPL
10.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 12

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is elevated above Wetland 11.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **13**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18446578** | Long: **-101.4895204** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 13 is a PEMA/C wetland on a shelf on the southeast bank of the North Platte River. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	5	X	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	65	X	FACW
2. *Cirsium arvense*	20	X	FACU
3. *Solidago altissima*	10		FACU
4. *Salix interior*	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 13

SOIL

Sampling Point: 13

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	5YR 2.5/1	100					Sandy Loam	
1-22	10YR 5/3	100					Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain that is likely to collect or concentrate water (3a-3h). The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** X **No** ___

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

Remarks:

One primary indicator and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **14**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **4-6**

Subregion (LRR): **G** | Lat: **41.1844482** | Long: **-101.4894853** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 14 is an upland out-point to Wetland 13 located at the top of the southeast bank of the North Platte River. This area is depicted as a riverine habitat on the NWI; however, no wetland indicators are observed and this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Elaeagnus angustifolia*	10	X	FACU
2. *Fraxinus pennsylvanica*	2	X	FAC
3.			
4.			
5.			
	12 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus tectorum*	50	X	UPL
2. *Verbascum thapsus*	5		UPL
3. *Sonchus arvensis*	5		FAC
4. *Solidago altissima*	5		FACU
5. *Cannabis sativa*	5		UPL
6. *Chenopodium album*	5		FACU
7. *Sporobolus cryptandrus*	5		FACU
8. *Physalis longifolia*	2		UPL
9.			
10.			
	82 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 18%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 14

SOIL

Sampling Point: 14

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2						Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is elevated above Wetland 13. No indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **15**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **2-3**

Subregion (LRR): **G** | Lat: **41.18474451** | Long: **-101.4908168** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 15 is a PSSA fringe wetland on a shelf of the northwest bank of the North Platte River. This area is adjacent to a riverine habitat depicted by the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	80	X	FACW
2.			
3.			
4.			
5.			
	80 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Urtica dioica*	15	X	FAC
2. *Verbascum thapsus*	5	X	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	10	X	FAC
2.			
	10 = Total Cover		

% Bare Ground in Herb Stratum 80%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 15

SOIL

Sampling Point: 15

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/4	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain that is likely to collect or concentrate water (3a-3h). The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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	_____	No	X	Depth (inches) _____

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

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

Remarks:

Three indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **16**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.18477635** | Long: **-101.490897** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 16 is an upland out-point to Wetland 15 and Wetland 17b. This area has a mix of hydrophytic and non-hydrophytic vegetation but does not pass the dominance test or prevalence index worksheet. This area is upland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	10	X	FACW
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Cirsium arvense*	15		FACU
2. *Verbascum thapsus*	15		UPL
3. *Ambrosia psilostachya*	15		FACU
4. *Nepeta cataria*	15		FACU
5. *Cannabis sativa*	10		UPL
6. *Phalaris arundinacea*	5		FACW
7. *Sporobolus cryptandrus*	5		FACU
8. *Setaria faberi*	5		UPL
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	5	X	FACU
2.			
	5 = Total Cover		

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	15	x 2 =	30	
FAC species	0	x 3 =	0	
FACU species	55	x 4 =	220	
UPL species	30	x 5 =	150	
Column Totals:	100	(A)	400	(B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 16

SOIL

Sampling Point: 16

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/4	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is elevated above Wetland 15. No indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **17**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18496185** | Long: **-101.4913207** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

SP 17 represents Wetland 17a and Wetland 17b, PEMA/C wetlands along the northwest bank of the North Platte River. Wetland 17 overlaps a riverine habitat depicted by the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	50	X	OBL
2. *Phalaris arundinacea*	50	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 17

SOIL

Sampling Point: 17

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	0-6
Water Table Present?	Yes	X	No	_____	Depth (inches)	Surface
Saturation Present? (includes capillary fringe)	Yes	X	No	_____	Depth (inches)	0-22

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

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

Remarks:

Primary and secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **18**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-3**

Subregion (LRR): **G** | Lat: **41.18492853** | Long: **-101.4912169** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 18 is an upland out-point to Wetland 17a.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Morus alba*	10	X	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Nepeta cataria*	20	X	FACU
2. *Cannabis sativa*	20	X	UPL
3. *Verbascum thapsus*	10		UPL
4. *Phalaris arundinacea*	10		FACW
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 40%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 18

SOIL

Sampling Point: 18

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Unknown obstruction

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of an unknown obstruction is present at 8 inches. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

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

Remarks:

This area is elevated above Wetland 17a.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **19**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): | Local relief (concave, convex, none): | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.18515473** | Long: **-101.4912818** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 19 is a Palustrine Unconsolidated Bottom (PUB) open water feature with a 0–10-foot PEMA/C wetland fringe. This SP documents the conditions along the PEMA/C fringe.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	55	X	OBL
2. *Schoenoplectus tabernaemontani*	5		OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 40%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 19

SOIL

Sampling Point: 19

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 3/1	98	10YR 4/6	2	C	M	Loamy Sand	
5-22	10YR 5/2	95	10YR 4/6	5	C	M	Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Soils meet indicators S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches)	1-5	
Water Table Present?	Yes X	No ___	Depth (inches)	1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0-22	**Wetland Hydrology Present?** Yes X No ___

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

Remarks:

Surface water and saturation are assumed to be associated with the water table. Primary and secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **20**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-8**

Subregion (LRR): **G** | Lat: **41.18511517** | Long: **-101.4912769** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 20 is an upland out-point to Wetland 19. This area has hydric soil; however, due to the lack of dominant hydrophytic vegetation and hydrology indicators this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Morus alba*	10	X	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Rosa arkansana*	20	X	FACU
2. *Juniperus virginiana*	15	X	UPL
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Nepeta cataria*	10	X	FACU
2. *Bromus inermis*	5	X	UPL
3. *Verbascum thapsus*	5	X	UPL
4. *Toxicodendron radicans*	3		FACU
5. *Solidago altissima*	2		FACU
6.			
7.			
8.			
9.			
10.			
	25	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 75%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 20

SOIL

Sampling Point: 20

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	97	10YR 4/6	3	CS	M	Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

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

Remarks:

This area meets hydric soil indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- ___ 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** ___ **No** X

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

Remarks:

This area is elevated slightly above Wetland 19 and Slopes toward Wetland 19.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Keith County | Sampling Date: 7/15/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 21

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 36W

Landform (hillslope, terrace, etc.): Shelf | Local relief (concave, convex, none): Concave | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.18487128 | Long: -101.4905271 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 21 is a PSSA wetland along a bank shelf on northeast side of the North Platte River. This area has a mix of hydrophytic and non-hydrophytic vegetation and does not pass the dominance test but does pass the prevalence index worksheet. This area is upland due to the presence of all three wetland indicators.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	60	X	FACW
2.			
3.			
4.			
5.			
	60 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Ambrosia psilostachya*	10	X	FACU
2. *Nepeta cataria*	10	X	FACU
3. *Bromus tectorum*	10	X	UPL
4. *Helianthus annuus*	10	X	FACU
5. *Cannabis sativa*	3		UPL
6. *Verbascum thapsus*	2		UPL
7. *Sporobolus cryptandrus*	1		FACU
8.			
9.			
10.			
	46 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 54%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	100 (A)		290 (B)

Prevalence Index = B/A = 2.90

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 21

SOIL

Sampling Point: 21

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/1	98	10YR 4/6	2	CS	M	Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

Soils meet hydirc soil indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- 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? (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:

One primary and one secondary indicator of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/15/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **22**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **8-10**

Subregion (LRR): **G** | Lat: **41.18493636** | Long: **-101.4905399** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 22 is an upland out-point to Wetland 21.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	20	X	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Solanum ptycanthum*	15	X	FACU
2. *Bromus tectorum*	10	X	UPL
3. *Asparagus officinalis*	3		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	28 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 72%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 22

SOIL

Sampling Point: 22

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

This area is elevated above Wetland 21.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **23**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.18508523** | Long: **-101.4922829** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater Forested/Shrub**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area
Wetland 23 is a PEMA/C wetland located in a depression north of the North Platte River. Wetland 23 extends northwest outside the Study Area.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1. *Salix amygdaloides*	5	X	FACW
2.			
3.			
4.			
5.			
	5	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Elaeagnus angustifolia*	5	X	FACU
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex nebrascensis*	20	X	OBL
2. *Ambrosia psilostachya*	15	X	FACU
3. *Solidago gigantea*	15	X	FAC
4. *Nepeta cataria*	15	X	FACU
5. *Phalaris arundinacea*	15	X	FACW
6. *Hordeum jubatum*	10		FACW
7. *Vernonia fasciculata*	10		FAC
8.			
9.			
10.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 23

SOIL

Sampling Point: 23

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/3	90	10YR 5/4	1	C	M	Sand	
0-22	10YR 6/2	9					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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	_____	No	X	Depth (inches) _____

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

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

Remarks:

Two secondary indicators of wetland hydrology are present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **24**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Hillslope** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18520772** | Long: **-101.4921182** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 24 is an upland out-point to Wetland 23.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Juniperus virginiana*	15	X	UPL
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Verbascum thapsus*	5	X	UPL
2. *Ambrosia psilostachya*	5	X	FACU
3. *Nepeta cataria*	5	X	FACU
4. *Chenopodium album*	5	X	FACU
5. *Solidago altissima*	5	X	FACU
6. *Rosa arkansana*	5	X	FACU
7. *Carex nebrascensis*	5	X	OBL
8. *Bromus inermis*	5	X	UPL
9.			
10.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 60%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 11 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 24

SOIL

Sampling Point: 24

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	50					Sand	
0-22	10YR 7/2	50					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is elevated above Wetland 23.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **25**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1**

Subregion (LRR): **G** | Lat: **41.18567187** | Long: **-101.4924072** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater Pond**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 25 is a PEMA/C wetland located in a depression. This area is situated between two NWI-mapped resources, a freshwater pond and a freshwater forest/shrub wetland; however, the vegetative community is indicative of a PEMA/C wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Nepeta cataria*	20	X	FACU
2. *Typha angustifolia*	20	X	OBL
3. *Solidago gigantea*	20	X	FAC
4. *Carex nebrascensis*	10		OBL
5. *Schoenoplectus pungens*	10		OBL
6. *Persicaria hydropiper*	9		OBL
7. *Urtica dioica*	5		FAC
8. *Impatiens capensis*	5		FACW
9.			
10.			
	99	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	1	X	FAC
2.			
	1	= Total Cover	

% Bare Ground in Herb Stratum 1%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo 25

SOIL

Sampling Point: 25

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					Sand	
4-6	10YR 4/2	95	10YR 4/6	5	C	M	Loamy Sand	
6-22	10YR 4/2	60	10YR 4/6	10	CS	M	Sand	
6-22	10YR 5/2	28	10YR 4/6	2	C	M	Loamy Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

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

Remarks:

Soils meet hydric soil indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	Depth (inches)	1-2
Water Table Present?	Yes	X	No	Depth (inches)	5
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches)	3-22

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

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

Remarks:

Surface water and saturation are assumed to be associated with the water table. This area meets primary and secondary indicators of hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **26**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **none** | Slope (%): **4-6**

Subregion (LRR): **G** | Lat: **41.1856863** | Long: **-101.4925381** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater forested/shrub**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	____	No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks: Keith Lincoln Canal Study Area

SP 26 is an upland out-point to Wetland 25. This area is depicted by the NWI as a freshwater forested/shrub wetland; however, due to the lack of all three wetland indicators this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1. *Elaeagnus angustifolia*	30	X	FACU
2. *Populus deltoides*	10		FAC
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Juniperus virginiana*	40	X	UPL
2.			
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago altissima*	15	X	FACU
2. *Rosa arkansana*	5	X	FACU
3. *Carex nebrascensis*	5	X	OBL
4. *Ambrosia psilostachya*	5	X	FACU
5. *Symphoricarpos occidentalis*	2	X	
6. *Commelina communis*	1		
7. *Fraxinus pennsylvanica*	1		
8.			
9.			
10.			
	34	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	1	X	FACU
2.			
	1	= Total Cover	

% Bare Ground in Herb Stratum 66%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 13 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 26

SOIL

Sampling Point: 26

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

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

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

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **27**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18561773** | Long: **-101.4926509** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater forested/shrub**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

Wetland 27a and Wetland 27b are PUB open water features with a 1-20 foot PEMA/C wetland fringe. SP 27 documents the conditions along the PEMA/C fringe of Wetlands 27a and 27b. This area has a mix of hydrophytic vegetation and non-hydrophytic vegetation and does not pass the dominance test; however, it passes the prevalence index worksheet and this area is determined to be a wetland due to the presence of all three wetland indicators. This area is depicted as a freshwater forested/shrub wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Morus rubra*	5	X	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	90	X	OBL
2. *Persicaria maculosa*	3		FACW
3. *Bidens frondosa*	2		FACW
4. *Teucrium canadense*	1		FACW
5.			
6.			
7.			
8.			
9.			
10.			
	96 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	6	x 2 =	12
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	101 (A)		122 (B)

Prevalence Index = B/A = 1.21

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 27

SOIL

Sampling Point: 27

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- __ High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	1-12
Water Table Present?	Yes	X	No	_____	Depth (inches)	1
Saturation Present? (includes capillary fringe)	Yes	X	No	_____	Depth (inches)	0-12+

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

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

Remarks:

Surface water and saturation are assumed to be associated with the water table. This area meets primary and secondary indicators of wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **28**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-6**

Subregion (LRR): **G** | Lat: **41.18555459** | Long: **-101.4925074** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater forested/shrub**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 28 is an upland out-point to Wetland 27a. This area is depicted as a freshwater forested/shrub wetland on the NWI; however, due to the lack of all three wetland indicators this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1. *Morus alba*	20	X	FACU
2.			
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Euphorbia marginata*	5	X	FACU
2. *Rosa arkansana*	5	X	FACU
3. *Symphoricarpos occidentalis*	5	X	UPL
4. *Chenopodium album*	5	X	FACU
5. *Ambrosia psilostachya*	5	X	FACU
6. *Ribes aureum*	5	X	FACU
7. *Phalaris arundinacea*	5	X	FACW
8. *Sporobolus cryptandrus*	5	X	FACU
9. *Bassia scoparia*	5	X	FACU
10.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	5	X	FACU
2. *Vitis riparia*	5	X	FAC
	10	= Total Cover	

% Bare Ground in Herb Stratum 55%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 17 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 28

SOIL

Sampling Point: 28

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 4/2	100					Sand	
5-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

This area is elevated above Wetland 27a. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **29**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18572717** | Long: **-101.4929397** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Freshwater Emergent**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 29 is an upland out-point to Wetland 27a and Wetland 27b. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Solidago altissima*	15	X	FACU
2. *Rosa arkansana*	15	X	FACU
3. *Ambrosia psilostachya*	15	X	FACU
4. *Nepeta cataria*	10	x	FACU
5. *Verbena hastata*	10		FACW
6. *Cirsium arvense*	10		FACU
7. *Glycyrrhiza lepidota*	10		FACU
8. *Commelina erecta*	5		FACU
9. *Verbascum thapsus*	5		UPL
10. *Helianthus annuus*	5		FACU
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo 29

SOIL

Sampling Point: 29

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR 5/2	100					Sand	
10-22	10YR 5/2	50					Sand	
10-22	10YR 3/1	50					Loamy Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **30**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18600932** | Long: **-101.492991** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area
Wetland 30 is a PEMA/C wetland is located in a depression.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	10	X	FAC
2. *Populus deltoides*	10	X	FAC
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	10	X	FACW
2. *Juniperus virginiana*	5	X	UPL
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Spartina pectinata*	25	X	FACW
2. *Carex nebrascensis*	15	X	OBL
3. *Hordeum jubatum*	15	X	FACW
4. *Poa pratensis*	10		FACU
5. *Asparagus officinalis*	10		
6. *Ambrosia psilostachya*	10		
7. *Solidago altissima*	10		
8. *Phalaris arundinacea*	3		
9. *Rosa arkansana*	2		
10.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 86 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 30

SOIL

Sampling Point: 30

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Loamy Sand	
6-22	10YR 5/1	90	7.5YR 5/8	10	CS	M	Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

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

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 X	No ___	Depth (inches)	8-22	**Wetland Hydrology Present?** **Yes** X **No** ___

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

Remarks:

Saturation is assumed to be associated with a water table because it continues through the soil profile through 22 inches and likely continues until the water table is reached. Primary and secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **31**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Hillslope** | Local relief (concave, convex, none): **None** | Slope (%): **4-6**

Subregion (LRR): **G** | Lat: **41.18607592** | Long: **-101.4928871** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 31 is an upland out-point to Wetland 30.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Juniperus virginiana*	10	X	UPL
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus tectorum*	20	X	UPL
2. *Ambrosia psilostachya*	10	X	FACU
3. *Solidago altissima*	10	X	FACU
4. *Bromus inermis*	10	X	UPL
5. *Euphorbia marginata*	1		
6. *Glycyrrhiza lepidota*	1		
7.			
8.			
9.			
10.			
	52 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 48%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 31

SOIL

Sampling Point: 31

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

This area is elevated above Wetland 30. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Keith County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 32

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 36W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-1

Subregion (LRR): G | Lat: 41.18615943 | Long: -101.4926921 | Datum: NAD83

Soil Map Unit Name: 8492 - Gothenburg loamy sand, occasionally flooded | NWI classification: None

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
Wetland 32 is a PEMA/C wetland situated in a depression.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	30	X	OBL
2. *Solidago gigantea*	15	X	FAC
3. *Cirsium arvense*	10		FACU
4. *Amorpha fruticosa*	5		FACW
5. *Urtica dioica*	5		FAC
6.			
7.			
8.			
9.			
10.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	1	X	FAC
2.			
	1 = Total Cover		

% Bare Ground in Herb Stratum 35%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 32

SOIL

Sampling Point: 32

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes X	No __	Depth (inches)	5	
Water Table Present?	Yes X	No __	Depth (inches)	Surface	
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:

Surface water is assumed to be associated with a high water table. Primary and secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **33**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18629674** | Long: **-101.4926725** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area
Wetland 33a and Wetland 33b are PEMA/C wetlands located in depressions on each side of a trail/path.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	10	X	FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	5	X	FACW
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago gigantea*	20	X	FAC
2. *Teucrium canadense*	5	X	FACW
3. *Bromus inermis*	5	X	UPL
4. *Spartina pectinata*	5	X	FACW
5. *Carex nebrascensis*	5	X	OBL
6. *Asclepias incarnata*	5	X	FACW
7. *Cirsium arvense*	5	X	FACU
8. *Toxicodendron radicans*	5	X	FACU
9. *Poa pratensis*	5	X	FACU
10. *Juncus dudleyi*	5	X	FACW
	65	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 35%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 8 (A)

Total Number of Dominant Species Across All Strata: 12 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 33

SOIL

Sampling Point: 33

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Sand	Organic matter
2-22	10YR 4/2	20	10YR 4/6	3	CS	M	Sand	
2-22	10YR 5/2	72	10YR 4/6	5	CS	M	Sand	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** X **No** ___

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

Remarks:

Two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **34**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Hillslope** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.18621616** | Long: **-101.492686** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area
SP 34 is an upland out-point to Wetland 32, Wetland 33a, and Wetland 33b.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	5	X	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bassia scoparia*	5	X	FACU
2. *Bromus tectorum*	5	X	UPL
3. *Setaria pumila*	5	X	FACU
4. *Bromus inermis*	5	X	UPL
5. *Ambrosia psilostachya*	5	X	FACU
6. *Rosa arkansana*	5	X	FACU
7. *Solidago altissima*	5	X	FACU
8. *Euphorbia marginata*	5	X	FACU
9. *Cirsium arvense*	5	X	FACU
10. *Helianthus annuus*	5	X	FACU
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 50%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 9 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 34

SOIL

Sampling Point: 34

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 6/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **35**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.1882495** | Long: **-101.4862583** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 35 is an upland point located an an area depicted by the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Sporobolus cryptandrus*	60	X	FACU
2. *Bromus tectorum*	5		UPL
3. *Euphorbia davidii*	3		UPL
4. *Chamaesyce missurica*	2		UPL
5.			
6.			
7.			
8.			
9.			
10.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo 35

SOIL

Sampling Point: 35

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/3	50					Sand	
0-22	10YR 4/3	50					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- 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 ____ No X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

This area only has one secondary indicator and does not meet criteria for wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **36**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18927526** | Long: **-101.4863037** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 36 is an upland point located in an area depicted by the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	70	X	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:

Photo: 36

SOIL

Sampling Point: 36

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR 3/2	100					Sand	
10-22	10YR 5/3	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- 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 _____ No X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

This area only has one secondary indicator and does not meet criteria for wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **37**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.19085143** | Long: **-101.4862974** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

Wetland 37a and Wetland 37b are PEMA/C fringe wetlands located along Channel 37, an unnamed intermittent stream channel with an OHWM approximately 25 feet wide. Channel 37 is depicted on the NHD as an Other Flowline and is adjacent to an NWI-mapped riverine habitat. Channel 37 appears to have standing water at this time. Channel 37 is conveyed east of the path/trail via culvert.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	50	X	FACW
2. *Apocynum cannabinum*	5		FAC
3. *Schoenoplectus tabernaemontani*	5		OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 40%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo 37

SOIL

Sampling Point: 37

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					Sandy Loam	Mucky 5 Percent Organic Carbon
5-22	Gley 1 2.5/10Y	90					Loamy Sand	Mucky 5 Percent Organic Carbon
5-22	10YR 2/1	10					Loamy Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- X Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

Soils meet indicator S1.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- X Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- X Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No	Depth (inches)	1-2
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:

Sufrace water is assumed to be associated with a water table. Primary and secondary indicators of wetland hydrology are observed. Tadpoles are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **38**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.19092122** | Long: **-101.4860784** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 38 is a PEMA/C fringe wetland located along Channel 37, an unnamed intermittent stream channel with an OHWM approximately 23 feet wide in this area. Channel 37 is depicted on the NHD as an Other Flowline and is adjacent to an NWI-mapped riverine habitat. Channel 37 appears to have standing water at this time. Channel 37 is conveyed west of the path/trail via culvert.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	20	X	OBL
2. *Poa pratensis*	20	X	FACU
3. *Solidago gigantea*	10		FAC
4. *Teucrium canadense*	5		FACW
5. *Juncus torreyi*	5		FACW
6. *Phalaris arundinacea*	5		FACW
7. *Carex nebrascensis*	5		OBL
8. *Schoenoplectus tabernaemontani*	5		OBL
9.			
10.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 25%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo 38

SOIL

Sampling Point: 38

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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)
- X Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	1-5
Water Table Present?	Yes	X	No	_____	Depth (inches)	1
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:

Sufrace water is assumed to be associated with a water table. Primary and secondary indicators of wetland hydrology are observed. Tadpoles are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **39**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Tope of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-6**

Subregion (LRR): **G** | Lat: **41.19094185** | Long: **-101.4861217** | Datum: **NAD83**

Soil Map Unit Name: **8492 - Gothenburg loamy sand, occasionally flooded** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 39 is an upland out-point to Wetland 37a, Wetland 73b, and Wetland 38 lcoated at the top of the bank of Channel 37 near a path/trail. This area is depicted on the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Helianthus annuus*	10	X	FACU
2. *Polygonum aviculare*	10	X	FACU
3. *Bromus inermis*	5	X	UPL
4. *Chenopodium album*	5	X	FACU
5. *Setaria viridis*	5	X	UPL
6. *Capsella bursa-pastoris*	5	X	FACU
7. *Digitaria sanguinalis*	5	X	FACU
8. *Bromus tectorum*	5	X	UPL
9. *Erigeron canadensis*	5	X	FACU
10. *Chamaesyce missurica*	5	X	UPL
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 40%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 39

SOIL

Sampling Point: 39

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR/4/3	100					Silty Loam	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Compact Soil

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

This area slopes toward Channel 37 and Wetland 38. No indicators or wetland hydrology observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **40**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.19204787** | Long: **-101.4863603** | Datum: **NAD83**

Soil Map Unit Name: **8563 - Platte Loam, occasionally flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Keith Lincoln Canal Study Area

Wetland 40a and Wetland 40b are a PEMA/C fringe wetlands along the banks of Channel 40, Duck Creek, an intermittent stream channel with an OHWM approximately 27 feet wide. Duck Creek is depicted on the NHD as an Other Flowline and is adjacent to an NWI freshwater emergent wetland. Duck Creek appears to have standing water at this time. Duck Creek is conveyed to the west side of the path/trail via culvert.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Schoenoplectus pungens*	20	X	OBL
2. *Bidens frondosa*	10	X	FACW
3. *Alisma triviale*	10	X	OBL
4. *Veronica anagallis-aquatica*	5		OBL
5. *Sagittaria cuneata*	5		OBL
6. *Persicaria pensylvanica*	5		FACW
7.			
8.			
9.			
10.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 45%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 40

SOIL

Sampling Point: 40

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	0-12
Water Table Present?	Yes	X	No	_____	Depth (inches)	1
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:

Sufrace water is assumed to be associated with a water table. Primary and secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **41**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Top of Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **8-9**

Subregion (LRR): **G** | Lat: **41.1920305** | Long: **-101.4863994** | Datum: **NAD83**

Soil Map Unit Name: **8563 - Platte Loam, occasionally flooded** | NWI classification: **Freshwater Emergent**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 41 is an upland out-point to Wetland 40a and 40b located at the top of the bank of Duck Creek. This area is depicted by the NWI as a freshwater emergent wetland; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus tectorum*	15	X	UPL
2. *Verbascum thapsus*	15	X	UPL
3. *Helianthus annuus*	15	X	FACU
4. *Bromus inermis*	5		UPL
5. *Chenopodium album*	5		FACU
6. *Bassia scoparia*	2		FACU
7.			
8.			
9.			
10.			
	57	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 43%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 41

SOIL

Sampling Point: 41

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area slopes toward Wetland 40a and Duck Creek. No indicators of wetland hydrololgy observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Keith County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **42**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 36W**

Landform (hillslope, terrace, etc.): **Bankslope** | Local relief (concave, convex, none): **None** | Slope (%): **6-8**

Subregion (LRR): **G** | Lat: **41.19203154** | Long: **-101.4865901** | Datum: **NAD83**

Soil Map Unit Name: **8563 - Platte Loam, occasionally flooded** | NWI classification: **None**

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

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

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

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

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

Remarks: Keith Lincoln Canal Study Area

SP 42 is documents the upland banks of Duck Creek on the west side of the path/trail. Duck Creek has an OHWM approximately 25 feet wide in this area and appears to have standing water at this time. Fringe wetlands may be present outside the Study Area to the west. This area is adjacent to a NWI-mapped freshwater emergent wetland; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Poa pratensis*	55	X	FACU
2. *Bromus inermis*	25	X	UPL
3. *Oxalis stricta*	15		FACU
4. *Taraxacum officinale*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 42

SOIL

Sampling Point: 42

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Sandy Loam	
3-22	10YR 2/1	100					Sandy Loam	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 43

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Top of bank | Local relief (concave, convex, none): Convex | Slope (%): 60-70

Subregion (LRR): G | Lat: 41.18390043 | Long: -101.1578129 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: Riverine Habitat

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 43 documents an upland bank on the west side of Channel 43, the Platte Valley Canal, a human-made diversion canal with perennial flow. The Platte Valley Canal has an OWHM approximately 35-45 feet wide. The Platte Valley Canal is depicted as an Other Flowline on the NHD and as a riverine habitat on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bassia scoparia*	80	X	FACU
2. *Cannabis sativa*	2		UPL
3. *Chenopodium album*	2		FACU
4. *Cyclachaena xanthiifolia*	2		FAC
5. *Helianthus annuus*	2		FACU
6.			
7.			
8.			
9.			
10.			
	88 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 12%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo 43

SOIL

Sampling Point: 43

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 6/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators met.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

This area is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **44**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **None** | Slope (%): **60-70**

Subregion (LRR): **G** | Lat: **41.18388622** | Long: **-101.1573258** | Datum: **NAD83**

Soil Map Unit Name: **4444 - Water** | NWI classification: **None**

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
SP 44 is an upland out-point to Wetland 45 located at the top of the northern bank of the Platte Valley Canal.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	30	X	FACW
2. *Setaria viridis*	15	X	FACU
3. *Helianthus annuus*	15	X	FACU
4. *Hordeum jubatum*	10		FACW
5. *Amaranthus palmeri*	5		FACU
6.			
7.			
8.			
9.			
10.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 25%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 44a, 44b

SOIL

Sampling Point: 44

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is too steep to support wetland conditions. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 45

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Bank Shelf | Local relief (concave, convex, none): Concave | Slope (%): 2-4

Subregion (LRR): G | Lat: 41.18387963 | Long: -101.1573199 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 45 is a 1-foot fringe PEMA/C wetland on a bank shelf on the north side of the Platte Valley Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	70	X	FACW
2. *Hordeum jubatum*	10		FACW
3. *Canabis sativa*	5		UPL
4. *Cirsium arvense*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 45

SOIL

Sampling Point: 45

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

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

Remarks:

No soil pit is taken due to inaccessibility because the banks were too steep. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** X **No** ___

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

Remarks:

Soils appear to be saturated at the surface; however, no soil pit was taken to confirm the presence of a water table. One primary indicator and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **46**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **None** | Slope (%): **10-13**

Subregion (LRR): **G** | Lat: **41.18410117** | Long: **-101.1574141** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 46 is an upland out-point to Wetland 47 located on the southern bank of Channel 46, the North Platte River. The North Platte River is a perennial channel with an OHWM approximately 230-310 feet wide in this area. The North Platte River is depicted as an Other Flowline and an NWI-mapped riverine habitat is adjacent to this area.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Cyclachaena xanthiifolia*	20	X	FAC
2. *Lotus corniculatus*	20	X	FACU
3. *Helianthus annuus*	20	X	FACU
4. *Melilotus officinalis*	10		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	X	FAC
2.			
	5 = Total Cover		

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	75 (A)		275 (B)

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 46

SOIL

Sampling Point: 46

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: Riprap

Depth (inches): Surface

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of riprap is present at the surface. Soils are assumed to be non-hydric due to the lack of domiannt hydrphytic vegetation and sufficient hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

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

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 47

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Bank shelf | Local relief (concave, convex, none): Concave | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.18413291 | Long: -101.1571554 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 47 is a PEMA/C wetland located on a bank shelf on the southern bank of the North Platte River.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	35	X	FACW
2. *Phalaris arundinacea*	25	X	FACW
3. *Schoenoplectus tabernaemontani*	15		OBL
4. *Solidago gigantea*	15		FAC
5. *Urtica dioica*	5		FAC
6.			
7.			
8.			
9.			
10.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 5%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 47

SOIL

Sampling Point: 47

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inaccessibility because the banks were too steep. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	Depth (inches)	1
Water Table Present?	Yes	X	No	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:

Surface water is visable and is assumed to be associated with a water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **48**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **None** | Slope (%): **10-12**

Subregion (LRR): **G** | Lat: **41.18385397** | Long: **-101.1581402** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 48 is an upland out-point to Wetland 49a and Wetland 49b located at the top of the southern bank of the North Platte River. This area is depicted on the NWI as a riverine habitat. This area has dominant hydrophytic vegetation; however, due to the lack of hydric soil and wetland hydrology indicators this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Fraxinus pennsylvanica*	10	X	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Asclepias speciosa*	20	X	FAC
2. *Solidago altissima*	20	X	FACU
3. *Phalaris arundinacea*	20	X	FACW
4. *Helianthus annuus*	15		FACU
5. *Ambrosia psilostachya*	5		FACU
6. *Melilotus officinalis*	5		FACU
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 48

SOIL

Sampling Point: 48

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/3	100					Loamy Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

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

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

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 49

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 0-1

Subregion (LRR): G | Lat: 41.18383094 | Long: -101.1583461 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: Riverine Habitat

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 49a and Wetland 49b are PEMA/C fringe wetlands located along the southern bank of the North Platte River. This area is depicted on the NWI as a riverine habitat.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	80	X	OBL
2. *Phalaris arundinacea*	20	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 49

SOIL

Sampling Point: 49

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No soil pit is taken due to inaccessibility and surface water. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	5-12
Water Table Present?	Yes	X	No	_____	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:

Surface water is visable and is assumed to be associated with a water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/16/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 50

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 1-2

Subregion (LRR): G | Lat: 41.18373811 | Long: -101.1582677 | Datum: NAD83

Soil Map Unit Name: 4691 - Marlake mucky peat | NWI classification: Riverine Habitat

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 50a, Wetland 50b, and Wetland 50c are PEMA/C fringe wetlands surrounding a PUB open water feature, Open Water 50a. Wetland 50c continues west outside the Study Area. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	50	X	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 50%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 50

SOIL

Sampling Point: 50

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X 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)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches)	2	
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:

Surface water is assumed to be associated with a water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/16/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **51**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Bank slope** | Local relief (concave, convex, none): **None** | Slope (%): **3-4**

Subregion (LRR): **G** | Lat: **41.18371372** | Long: **-101.1581562** | Datum: **NAD83**

Soil Map Unit Name: **4691 - Marlake mucky peat** | NWI classification: **None**

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 51 is an upland out-point to Wetland 50a, Wetland 50b, and Wetland 50c locatd on a sandy bank on the east side of the Open Water feature. This area has a mix of hydrophytic and non-hydrophytic vegetation but does not pass the dominance test or prevalence index worksheet. This area is upland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus pumila*	10	X	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Spartina pectinata*	10	X	FACW
2. *Ulmus pumila*	1		UPL
3. *Populus deltoides*	1		FAC
4. *Helianthus annuus*	1		FACU
5. *Fallopia convolvulus*	1		FACU
6. *Polygonum aviculare*	1		FACU
7.			
8.			
9.			
10.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 85%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	1	x 3 =	3	
FACU species	3	x 4 =	12	
UPL species	11	x 5 =	55	
Column Totals:	25	(A)	90	(B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 51

SOIL

Sampling Point: 51

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

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

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **52**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18491106** | Long: **-101.1582832** | Datum: **NAD83**

Soil Map Unit Name: **8495 - Gothenburg soils, frequently flooded** | NWI classification: **None**

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

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

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

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

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 52a consists of a PEMA/C wetland surrounding a PUB open water feature. Wetland 52b is a PEMA/C wetland with similar conditions as the PEMA/C portion of Wetland 52a, and overlaps an NWI-mapped freshwater pond and freshwater emergent wetland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	40	X	FACW
2. *Typha angustifolia*	40	X	OBL
3. *Schoenoplectus tabernaemontani*	10		OBL
4. *Cirsium arvense*	5		FACU
5. *Schoenoplectus pungens*	5		OBL
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 52

SOIL

Sampling Point: 52

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 5/2	100					Sand	
5-8	10YR 5/2	98	10YR 4/6	2	C	M	Loamy Sand	
8-22	10YR 3/1	70	10YR 4/6	2	C	M	Loamy Sand	
8-22	10YYR 5/2	27	10YR 4/6	1	C	M	Loamy Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

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

Remarks:

Soils meet hydric soil indicator F6.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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)
- X Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

One primary indicator and three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **53**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.1849411** | Long: **-101.158112** | Datum: **NAD83**

Soil Map Unit Name: **8495 - Gothenburg soils, frequently flooded** | NWI classification: **Freshwater Pond**

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

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

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

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

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

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 53 is an upland out-point to Wetland 52a and Wetland 52b. This area is depicted as a freshwater pond on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Sporobolus cryptandrus*	25	X	FACU
2. *Ambrosia psilostachya*	10	X	FACU
3. *Physalis longifolia*	5		UPL
4. *Verbascum thapsus*	5		UPL
5. *Verbena stricta*	5		UPL
6. *Glycyrrhiza lepidota*	5		FACU
7. *Euphorbia marginata*	5		FACU
8. *Cirsium arvense*	5		FACU
9. *Cannabis sativa*	1		UPL
10.			
	66 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 34%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

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

Remarks:
Photo: 53

SOIL

Sampling Point: 53

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/3	100					Sand	

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

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

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

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

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

This area is elevated above Wetland 52a and Wetland 52b. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **54**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **13, 14N, 34W**

Landform (hillslope, terrace, etc.): **Bank/Sandbar** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18487798** | Long: **-101.1579301** | Datum: **NAD83**

Soil Map Unit Name: **8495 - Gothenburg soils, frequently flooded** | NWI classification: **Freshwater Pond**

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

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

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 54 is a PEMA/C wetland fringe on the northern bank of the North Platte River. This area is depicted as a freshwater pond on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	70	X	OBL
2. *Veronica anagallis-aquatica*	5		OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 25%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 54

SOIL

Sampling Point: 54

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Loamy Sand	
6-22	Gley 1 3/2	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches)	1-2	
Water Table Present?	Yes X	No ___	Depth (inches)	0-1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0-22	**Wetland Hydrology Present?** Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with a water table. Four primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 55

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 13, 14N, 34W

Landform (hillslope, terrace, etc.): Berm | Local relief (concave, convex, none): Convex | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.18492617 | Long: -101.1579295 | Datum: NAD83

Soil Map Unit Name: 8495 - Gothenburg soils, frequently flooded | NWI classification: Freshwater Pond

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 55 is an upland out-point to Wetland 54 and Wetland 52b located on an elevated berm. This area is depicted as a freshwater pond on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Ambrosia psilostachya*	20	X	FACU
2. *Cirsium arvense*	15	X	FACU
3. *Sporobolus cryptandrus*	5		FACU
4. *Setaria viridis*	5		UPL
5. *Spartina pectinata*	5		FACW
6. *Glycyrrhiza lepidota*	5		FACU
7.			
8.			
9.			
10.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 45%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 55

SOIL

Sampling Point: 55

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock

Depth (inches): Surface

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of rock is present at the surface. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 52b and Wetland 54. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 56

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 33W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.18710266 | Long: -101.1527594 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 56 is a PEMA/C wetland on the north bank of the North Platte River.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	75	X	OBL
2. *Phalaris arundinacea*	20	X	FACW
3. *Cirsium arvense*	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 56

SOIL

Sampling Point: 56

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					Sandy Loam	
4-22	10YR 5/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches)	____	
Water Table Present?	Yes X	No ____	Depth (inches)	8	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches)	3	**Wetland Hydrology Present?** Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **57**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **10-12**

Subregion (LRR): **G** | Lat: **41.18718178** | Long: **-101.1526555** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 57 is an upland out-point to Wetland-56. This area has a mix of hydrophytic vand non-hydrophytic vegetation; however, it does not pass the dominance test or prevalence index worksheet. This area is upland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Spartina pectinata*	30	X	FACW
2. *Cirsium arvense*	15	X	FACU
3. *Ambrosia psilostachya*	10		FACU
4. *Physalis longifolia*	5		UPL
5. *Polygonum aviculare*	2		FACU
6.			
7.			
8.			
9.			
10.			
	62 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 38%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	27	x 4 =	108
UPL species	5	x 5 =	25
Column Totals:	62 (A)		193 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 57

SOIL

Sampling Point: 57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 4/1	100					Sand	
8-22	10YR 5/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 56. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 58

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 33W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 1-2

Subregion (LRR): G | Lat: 41.18754378 | Long: -101.1522045 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: Riverine Habitat

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 58 is a PUB Open Water feature with a PEMA/C wetland fringe. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Schoenoplectus tabernaemontani*	70	X	OBL
2. *Phalaris arundinacea*	23	X	FACW
3. *Urtica dioica*	5		FAC
4. *Lemna minor*	2		OBL
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 58

SOIL

Sampling Point: 58

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches)	5-6	
Water Table Present?	Yes X	No ___	Depth (inches)	1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	Assumed	**Wetland Hydrology Present?** Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the high water table. Three primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **59**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.18751757** | Long: **-101.1521587** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 59 is an upland out-point to Wetland 58 and Wetland 60 located on an elevated berm between the two wetlands. This area is depicted on the NWI as a riverine habitat; however, no channel or wetland features are observed.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Sporobolus cryptandrus*	15	X	FACU
2. *Helianthus annuus*	5		FACU
3. *Cirsium arvense*	5		FACU
4. *Ambrosia psilostachya*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 70%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 59

SOIL

Sampling Point: 59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/1	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 58 and Wetland 60. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **60**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18748075** | Long: **-101.1521197** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 60 is a PEMA/C wetland along the northern bank of the North Platte River.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	50	X	FACW
2. *Schoenoplectus tabernaemontani*	30	X	OBL
3. *Phalaris arundinacea*	20	X	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 60

SOIL

Sampling Point: 60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches)	1-2	
Water Table Present?	Yes X	No ____	Depth (inches)	Surface	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches)	Assumed	**Wetland Hydrology Present?** Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the high water table. Three primary indicators and three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 61

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 33W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 1-2

Subregion (LRR): G | Lat: 41.18648677 | Long: -101.1519994 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 61 is a PEMA/C fringe wetland along the southern bank of the North Platte River. This area is adjacent to a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			OBL
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	85	X	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 61

SOIL

Sampling Point: 61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No	____	Depth (inches)	1-5
Water Table Present?	Yes	X	No	____	Depth (inches)	Surface
Saturation Present? (includes capillary fringe)	Yes	X	No	____	Depth (inches)	Assumed

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the high water table. Three primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **62**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **15-25**

Subregion (LRR): **G** | Lat: **41.18648177** | Long: **-101.1519791** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
SP 62 is an upland out-point to Wetland 61.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	50	X	UPL
2. *Solidago altissima*	20	X	FACU
3. *Ambrosia psilostachya*	10		FACU
4. *Morus rubra*	5		FACU
5. *Helianthus annuus*	5		FACU
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 62

SOIL

Sampling Point: 62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 3/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 61 and is too steep to support weltand conditions. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **63**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **50-60**

Subregion (LRR): **G** | Lat: **41.18652539** | Long: **-101.1514236** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 63 documents the southern upland bank of Channel 63, the Paxton-Hershey Canal, a human made canal with perennial flow and an OHWM approximately 23-42 feet wide. The Paxton-Hershey Canal is depicted as an Other Flowline on the NHD and a riverine habitat on the NWI. This area has a mix of hydrophytic and non-hydrophytic vegetation and passes the dominance test; however, this area is upland due to the lack of hydric soils and wetland hydrology indicators.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	20	X	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	30	X	UPL
2. *Salix interior*	20	X	FACW
3. *Solidago altissima*	20	X	FACU
4. *Toxicodendron radicans*	10		FACU
5. *Carex nebrascensis*	10		OBL
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	10	X	FAC
2.			
	10 = Total Cover		

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Photo: 63

SOIL

Sampling Point: 63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 3/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **64**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **4-6**

Subregion (LRR): **G** | Lat: **41.18661844** | Long: **-101.1514784** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 64 is a PSSA wetland abutting the northern bank of the Paxton-Hershey Canal. This area is depicted as a riverine habitat on the NWI and an Other Flowline on the NHD.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	50	X	FACW
2.			
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Salix interior*	50	X	FACW
2. *Asclepias speciosa*	10		FAC
3. *Ambrosia psilostachya*	10		FACU
4. *Cirsium arvense*	5		FACU
5. *Solidago altissima*	5		
6.			
7.			
8.			
9.			
10.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 64

SOIL

Sampling Point: 64

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/3						Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **65**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.18659291** | Long: **-101.1514872** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 65 is a PEMA/C wetland abutting Wetland 64 and the Paxton-Hershey Canal. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	90	X	OBL
2. *Persicaria maculosa*	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 65

SOIL

Sampling Point: 65

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches)	0-4	
Water Table Present?	Yes X	No ____	Depth (inches)	Surface	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches)	Assumed	**Wetland Hydrology Present?** Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the high water table. Three primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **66**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **8-10**

Subregion (LRR): **G** | Lat: **41.18661459** | Long: **-101.1515514** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 66 is an upland out-point to Wetland 64 and Wetland 65. This area is depicted as a riverine habitat on the NWI. This area has hydrophytic vegetation but is upland due to the lack of hydric soils and wetland hydrology indicators.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	20	X	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Asclepias speciosa*	15	X	FAC
2. *Salix interior*	10	X	FACW
3. *Helianthus annuus*	5		FACU
4. *Cirsium arvense*	5		FACU
5. *Convolvulus arvensis*	1		UPL
6.			
7.			
8.			
9.			
10.			
	36 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 64%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo 66

SOIL

Sampling Point: 66

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area meets one primary indicator of wetland hydrology; however, this area is elevated above Wetland 64 and Wetland 65 and is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 67

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 18, 14N, 33W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 2-4

Subregion (LRR): G | Lat: 41.18682067 | Long: -101.1515176 | Datum: NAD83

Soil Map Unit Name: 8495: Gothenburg soils, frequently flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 67a and Wetland 67b are PEMA/C wetlands along the southern bank of the North Platte River.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Salix interior*	5	X	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	50	X	FACW
2. *Phalaris arundinacea*	20	X	FACW
3. *Schoenoplectus tabernaemontani*	10		OBL
4. *Polypogon monspeliensis*	10		FACW
5. *Persicaria pensylvanica*	5		FACW
6. *Verbena hastata*	2		FACW
7.			
8.			
9.			
10.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	2	X	FACU
2.			
	2 = Total Cover		

% Bare Ground in Herb Stratum 3%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	0 (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo 67

SOIL

Sampling Point: 67

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 5/1	90	7.5YR 5/8	5	CS	M	Sand	
0-5	10YR 3/1	5					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 X 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:

Two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **68**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **None** | Slope (%): **10-15**

Subregion (LRR): **G** | Lat: **41.18686627** | Long: **-101.1513584** | Datum: **NAD83**

Soil Map Unit Name: **8495: Gothenburg soils, frequently flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 68 is an upland out-point to Wetland 67a and Wetland 67b. This area has a mix of hydrophytic and non-hydrophytic vegetation and passes the dominance test and prevalence index worksheet; however, due to the lack of hydric soils and wetland hydrology indicators this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	20	X	FACW
2. *Persicaria maculosa*	5	X	FACW
3. *Nepeta cataria*	5	X	FACU
4. *Polypogon monspeliensis*	5	X	FACW
5. *Melilotus officinalis*	5	X	FACU
6. *Solidago altissima*	5	X	FACU
7. *Rumex crispus*	5	X	FAC
8. *Veronica anagallis-aquatica*	5	X	OBL
9. *Cyclachaena xanthifolia*	5	X	FAC
10. *Convolvulus arvensis*	1		UPL
	61	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	5	X	FACU
2.			
	5	= Total Cover	

% Bare Ground in Herb Stratum 39%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 6 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5	
FACW species	30	x 2 =	60	
FAC species	10	x 3 =	30	
FACU species	20	x 4 =	80	
UPL species	1	x 5 =	5	
Column Totals:	66	(A)	180	(B)

Prevalence Index = B/A = 2.73

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks:
Photo 68

SOIL

Sampling Point: 68

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 5/1	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Concrete

Depth (inches): 1

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of concrete is present at 1 inch. Soils are assumed to be non-hydric due to the lack of wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area slopes toward the North Platte River and is too steep to support wetland hydrology. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **69**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **07, 14N, 32W**

Landform (hillslope, terrace, etc.): **Bank slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **50-70**

Subregion (LRR): **G** | Lat: **41.19906828** | Long: **-101.0406** | Datum: **NAD83**

Soil Map Unit Name: **8503 - Lex loam, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Suburban Canal Study Area
Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	98	X	UPL
2. *Poa pratensis*	2		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 69

SOIL

Sampling Point: 69

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 5/3	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Riprap

Depth (inches): 1

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of rip rap is present at 1 inch. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **70**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **07, 14N, 32W**

Landform (hillslope, terrace, etc.): **Bank shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.19891118** | Long: **-101.0404934** | Datum: **NAD83**

Soil Map Unit Name: **8503 - Lex loam, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	80	X	FACW
2. *Persicaria pensylvanica*	10		FACW
3. *Carex nebrascensis*	9		OBL
4. *Equisetum hyemale*	1		FACW
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 70

SOIL

Sampling Point: 70

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** __

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No __	Depth (inches)	9	
Water Table Present?	Yes X	No __	Depth (inches)	Surface	
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:

Surface water is assumed to be associated with a high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 71

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 07, 14N, 32W

Landform (hillslope, terrace, etc.): Top of bank | Local relief (concave, convex, none): Convex | Slope (%): 50-70

Subregion (LRR): G | Lat: 41.19872871 | Long: -101.0405255 | Datum: NAD83

Soil Map Unit Name: 8503 - Lex loam, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Elaeagnus angustifolia*	20	X	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	100	X	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 71

SOIL

Sampling Point: 71

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No remarks.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 72

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 07, 14N, 32W

Landform (hillslope, terrace, etc.): Top of bank | Local relief (concave, convex, none): Convex | Slope (%): 3-5

Subregion (LRR): G | Lat: 41.1986043 | Long: -101.0407091 | Datum: NAD83

Soil Map Unit Name: 8503 - Lex loam, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	90	X	UPL
2. *Symphoricarpos occidentalis*	5		UPL
3. *Asclepias speciosa*	5		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 72

SOIL

Sampling Point: 72

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR 4/2	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 1

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compact soil is present at 1 inch. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **73**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **12, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **None** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.19894941** | Long: **-101.0412472** | Datum: **NAD83**

Soil Map Unit Name: **8503 - Lex loam, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	90	X	OBL
2. *Phalaris arundinacea*	10		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 73

SOIL

Sampling Point: 73

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

Unable to dig in this area due to the presence of fiber optic cable markers. Soils are assumed to be hydric due to presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No		Depth (inches)	0-12
Water Table Present?	Yes	X	No		Depth (inches)	1
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:

Surface water is assumed to be associated with a high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **74**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **12, 14N, 33W**

Landform (hillslope, terrace, etc.): **Top of slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-3**

Subregion (LRR): **G** | Lat: **41.19886912** | Long: **-101.0412448** | Datum: **NAD83**

Soil Map Unit Name: **8503 - Lex loam, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	80	X	UPL
2. *Spartina pectinata*	20	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	80	x 5 =	400
Column Totals:	100 (A)		440 (B)

Prevalence Index = B/A = 4.40

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 74

SOIL

Sampling Point: 74

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

Unable to dig in this area due to the presence of fiber optic cable markers. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is slightly elevated above Wetland 73a and Wetland 73b. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **75**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **12, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.19864044** | Long: **-101.0419016** | Datum: **NAD83**

Soil Map Unit Name: **8503 - Lex loam, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	70	X	FACW
2. *Spartina pectinata*	20	X	FACW
3. *Bromus inermis*	10		UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks:
Photo: 75

SOIL

Sampling Point: 75

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

Unable to dig in this area due to the presence of fiber optic cable markers. Soils are assumed to be non-hydric due to the lack of sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- X 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 73b and the banks along Channel 72 are too steep in this area to support wetland hydrology. This area meets one secondary indicator of wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 76

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 12, 14N, 33W

Landform (hillslope, terrace, etc.): Pasture | Local relief (concave, convex, none): None | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.1986769 | Long: -101.0418406 | Datum: NAD83

Soil Map Unit Name: 8503 - Lex loam, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	70	X	UPL
2. *Euphorbia marginata*	20	X	FACU
3. *Cirsium arvense*	10		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 76

SOIL

Sampling Point: 76

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

Unable to dig in this area due to the presence of fiber optic cable markers. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 77

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 12, 14N, 33W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 1-2

Subregion (LRR): G | Lat: 41.19985632 | Long: -101.0412752 | Datum: NAD83

Soil Map Unit Name: 8503 - Lex loam, occasionally flooded | NWI classification: Freshwater Emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	90	X	OBL
2. *Solidago gigantea*	5		FAC
3. *Impatiens capensis*	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 77

SOIL

Sampling Point: 77

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No	_____	Depth (inches)	0-2
Water Table Present?	Yes	X	No	_____	Depth (inches)	Surface
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:

Surface water is assumed to be associated with a high water table. Two primary indicators and three secondary indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **78**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **12, 14N, 33W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **3-4**

Subregion (LRR): **G** | Lat: **41.19983491** | Long: **-101.0412888** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Sporobolus Cryptandrus*	20	X	FACU
2. *Bromus inermis*	10	X	UPL
3. *Ambrosia psilostachya*	9	X	FACU
4. *Croton texensis*	1		UPL
5.			
6.			
7.			
8.			
9.			
10.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 60%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo 78

SOIL

Sampling Point: 78

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR 5/3	100					Sand	
10-22	10YR 5/2	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 77. No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 79

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 12, 14N, 33W

Landform (hillslope, terrace, etc.): Upland bank | Local relief (concave, convex, none): Convex | Slope (%): 10-15

Subregion (LRR): G | Lat: 41.19962444 | Long: -101.0409101 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1. *Ulmus pumila*	40	X	UPL
2. *Morus rubra*	10	X	FACU
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bassia scoparia*	50	X	FACU
2. *Chenopodium album*	10		FACU
3. *Vitis riparia*	10		FAC
4. *Bromus inermis*	10		UPL
5. *Setaria viridis*	10		UPL
6.			
7.			
8.			
9.			
10.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 79

SOIL

Sampling Point: 79

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 4/3	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Riprap

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of riprap is present at 8 inches. Soils are assumed to be non-hydric due to the lack of hydric soil indicators in the first 8 inches and due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 80

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 07, 14N, 32W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2

Subregion (LRR): G | Lat: 41.19969592 | Long: -101.0406512 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: Freshwater Emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Suburban Canal Study Area

Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	60	X	OBL
2. *Phalaris arundinacea*	30	X	FACW
3. *Sagittaria latifolia*	10		OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 80

SOIL

Sampling Point: 80

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Loamy Sand	
3-22	10YR 5/2	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- X 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)
- ___ Other (Explain in Remarks)

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)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No ___	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	2	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0-22	**Wetland Hydrology Present?** Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Three primary indicators and three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers **WETLAND DETERMINATION DATA SHEET - Great Plains Region** See ERDC/EL TR-10-1; the proponent agency is CECW-COR	*OMB Control #: 0710-0024, Exp: 09/30/2027* ***Requirement Control Symbol EXEMPT:*** ***(Authority: AR 335-15, paragraph 5-2a)***

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 81

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 07, 14N, 32W

Landform (hillslope, terrace, etc.): Field | Local relief (concave, convex, none): None | Slope (%): 1-3

Subregion (LRR): G | Lat: 41.19987606 | Long: -101.0404567 | Datum: NAD83

Soil Map Unit Name: 8495: Gothenburg soils, frequently flooded | NWI classification: Freshwater Forested/Shrub

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Suburban Canal Study Area

SP 81 is an upland out-point to Wetland 80 and Wetland 82.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus pumila*	30	X	UPL
2.			
3.			
4.			
5.			
	30	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	100	X	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	____	= Total Cover	

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	____	x 4 =	____
UPL species	____	x 5 =	____
Column Totals:	____ (A)		____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

Photo: 81

SOIL

Sampling Point: 81

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/3	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed .

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **82**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **07, 14N, 32W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-3**

Subregion (LRR): **G** | Lat: **41.19967646** | Long: **-101.0402502** | Datum: **NAD83**

Soil Map Unit Name: **4444 - Water** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Suburban Canal Study Area
Wetland 82 is a PSSA wetland adjacent to Wetland 80 on the northeast bank of the North Platte River.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Amorpha fruticosa*	45	X	FACW
2. *Salix interior*	30		FACW
3.			
4.			
5.			
	75 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Amorpha fruticosa*	10	X	FACW
2. *Salix interior*	10	X	FACW
3. *Solidago gigantea*	10	X	FAC
4. *Schoenoplectus tabernaemontani*	10	X	OBL
5. *Verbena stricta*	5		
6.			
7.			
8.			
9.			
10.			
	45 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 55%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 82a, 82b

SOIL

Sampling Point: 82

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 2/2						Sandy Loam	
5-22	10YR 5/2						Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Three secondary indicators of wetland hydrology are observed. Springs are present throughout the wetland.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **83**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Bank Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.2253789** | Long: **-101.0725546** | Datum: **NAD83**

Soil Map Unit Name: **4807: Valentine fine sand, rolling, 9 to 24 percent slopes** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area

Wetland 83 is a PEMA/C fringe wetland along the southern bank of Channel 83, Birdwood Creek, a perennial channel with an OHWM approximately 32-77 feet wide. Birdwood Creek is depicted on the NHD as an Other Flowline and this area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	45	X	OBL
2. *Sagittaria latifolia*	40	X	OBL
3. *Schoenoplectus tabernaemontani*	10		OBL
4. *Lemna minor*	5		OBL
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 83

SOIL

Sampling Point: 83

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No		Depth (inches)	0-12
Water Table Present?	Yes	X	No		Depth (inches)	Surface
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:

Surface water is assumed to be associated with a high water table. Two primary indicators and three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **84**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Top of Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **70-80**

Subregion (LRR): **G** | Lat: **41.22564389** | Long: **-101.0722701** | Datum: **NAD83**

Soil Map Unit Name: **4807: Valentine fine sand, rolling, 9 to 24 percent slopes** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 84 is an upland out-point to Wetland 83. This area is depicted as a freshwater emergent wetland on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	50	X	UPL
2. *Ratibida columnifera*	25	X	UPL
3. *Helianthus annuus*	10		FACU
4. *Ambrosia psilostachya*	10		FACU
5. *Commelina erecta*	2		FACU
6.			
7.			
8.			
9.			
10.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 3%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 84

SOIL

Sampling Point: 84

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 4/2	100					Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 2

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compact soil is present at 2 inches. Soils are assumed to be non-hydric due to the lack of hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **85**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Bank Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.22527447** | Long: **-101.0726544** | Datum: **NAD83**

Soil Map Unit Name: **4807: Valentine fine sand, rolling, 9 to 24 percent slopes** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area
Wetland 85 is a PSSA wetland on the southern bank of Birdwood Creek.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. *Salix interior*	50	X	FACW
2. *Amorpha fruticosa*	20	X	FACW
3.			
4.			
5.			
	70	= Total Cover	

Herb Stratum (Plot size: 5')			
1. *Carex nebrascensis*	25	X	OBL
2. *Trifolium pratense*	15	X	FACU
3. *Verbena hastata*	10		FACW
4. *Solidago gigantea*	10		FAC
5. *Rumex crispus*	5		FAC
6. *Chenopodium album*	3		FACU
7. *Solanum americanum*	2		FACU
8. *Helianthus annuus*	2		FACU
9.			
10.			
	72	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	25	X	FAC
2. *Parthenocissus quinquefolia*	5		FACU
	30	= Total Cover	

% Bare Ground in Herb Stratum 28%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 85

SOIL

Sampling Point: 85

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	60	10YR 4/6	2	C	M	Sandy Loam	
0-22	10YR 3/2	36	10YR 4/6	2	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** __

Remarks:

Soils meet indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **86**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Bank Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.22503185** | Long: **-101.0724449** | Datum: **NAD83**

Soil Map Unit Name: **4807: Valentine fine sand, rolling, 9 to 24 percent slopes** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area

Wetland 86a and Wetland 86b are PEMA/C fringe wetlands along the banks of Channel 86, Birdwood Canal, a perennial channel with an OHWM approximately 25-35 feet wide. Birdwood Canal is depicted on the NHD as an Other Flowline, and this area is ajdacent to a riverine habitat on the NWI. Wetland 86a is on the east side of Birdwood Canal and Wetland 86b is on the west side of the Birdwood canal. The two wetlands share the same characteristics.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Amorpha fruticosa*	15	X	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	95	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 5%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 86

SOIL

Sampling Point: 86

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 5/2	100					Silty loam	
3-22	10YR 5/1	100					Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	0-1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0-22	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **87**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Top of Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.22529721** | Long: **-101.0725982** | Datum: **NAD83**

Soil Map Unit Name: **4807: Valentine fine sand, rolling, 9 to 24 percent slopes** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 87 is an upland out-point to Wetland 83 and Wetland 85. This area is depicted on the NWI as a freshwater emergent wetland; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	40	X	UPL
2. *Trifolium pratense*	20	X	FACU
3. *Helianthus annuus*	10		FACU
4. *Ambrosia psilostachya*	10		FACU
5. *Croton texensis*	5		UPL
6. *Xanthium strumarium*	5		FAC
7. *Amaranthus arenicola*	5		FACU
8. *Toxicodendron radicans*	5		FACU
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	10	X	FAC
2.			
	10 = Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 87

SOIL

Sampling Point: 87

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 4/3	100					Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 2

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compaction is present at 2 inches. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **88**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.22491733** | Long: **-101.0720985** | Datum: **NAD83**

Soil Map Unit Name: **4553: Elsmere loamy fine sand, 0 to 3 percent slopes** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area
SP 88 is an upland out-point to Wetland 86a on the northeast side of the Birdwood Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Cannabis sativa*	50	X	UPL
2. *Elymus canadensis*	10		FACU
3. *Solidago altissima*	10		FACU
4. *Ambrosia psilostachya*	9		FACU
5. *Rosa arkansana*	5		FACU
6. *Bassia scoparia*	5		FACU
7. *Hordeum jubatum*	5		FACW
8. *Amaranthus arenicola*	5		FACU
9. *Physalis longifolia*	1		UPL
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 88

SOIL

Sampling Point: 88

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sandy Silt	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 86a. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **89**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.22509742** | Long: **-101.0726771** | Datum: **NAD83**

Soil Map Unit Name: **4553: Elsmere loamy fine sand, 0 to 3 percent slopes** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 89 is an upland out-point for Wetland 86b on the southwestern bank of the Birdwood Canal. This area is depicted as a freshwater emergent wetland on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Amorpha fruticosa*	15	X	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Rosa arkansana*	15	X	FACU
2. *Helianthus annuus*	10		FACU
3. *Solidago altissima*	10		FACU
4. *Phalaris arundinacea*	10		FACW
5. *Bromus inermis*	10		
6.			
7.			
8.			
9.			
10.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Parthenocissus quinquefolia*	5	X	FACU
2.			
	5 = Total Cover		

% Bare Ground in Herb Stratum 45%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:

No Photo - conditions and vegetation are similar to SP 90 and Photo 90

SOIL

Sampling Point: 89

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **90**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Bankslope** | Local relief (concave, convex, none): **Convex** | Slope (%): **3-5**

Subregion (LRR): **G** | Lat: **41.22511186** | Long: **-101.0728993** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 90 is an upland out-point to Wetland 91b located on the southern bank of Birdwood Creek. This area is depicted as a riverine habitat on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Prunus americana*	20	X	UPL
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Apocynum cannabinum*	25	X	FAC
2. *Bromus inermis*	20	X	UPL
3. *Commelina erecta*	10		FACU
4. *Solidago altissima*	5		FACU
5. *Phleum pratense*	5		FACU
6. *Euphorbia marginata*	5		FACU
7.			
8.			
9.			
10.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 90

SOIL

Sampling Point: 90

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 5/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compact soil is present at 6 inches. Soils are assumed to be non-hydric due to the lack of hydric soil indicators in the top 6 inches, and the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **91**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Shelf** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.22495941** | Long: **-101.0732864** | Datum: **NAD83**

Soil Map Unit Name: **4553: Elsmere loamy fine sand, 0 to 3 percent slopes** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area

Wetland 91a and Wetland 91b are PEMA/C fringe wetlands located on bank shelves on the southern bank of Birdwood Creek. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	10	X	FAC
2. *Acer saccharinum*	10	X	FAC
3.			
4.			
5.			
	20	= Total Cover	

Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	100	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	20	X	FAC
2.			
	20	= Total Cover	

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 91

SOIL

Sampling Point: 91

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 5/2	92	10YR 4/6	8	CS	M	Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 X	No ___	Depth (inches)	6-22	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with a water table because it continues in the soil profile throughout 22 inches and likely continues until the water table is reached. One primary indicator and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 92

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 35, 15N, 33W

Landform (hillslope, terrace, etc.): Top of bank | Local relief (concave, convex, none): Convex | Slope (%): 2-4

Subregion (LRR): G | Lat: 41.22495158 | Long: -101.0731897 | Datum: NAD83

Soil Map Unit Name: 4553: Elsmere loamy fine sand, 0 to 3 percent slopes | NWI classification: Riverine Habitat

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 92 is an upland out-point to Wetland 91a. This area is depicted on the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Amorpha fruticosa*	5	X	FACW
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	15	X	UPL
2. *Ambrosia psilostachya*	15	X	FACU
3. *Medicago sativa*	15	X	UPL
4. *Bromus tectorum*	15	X	UPL
5. *Artemisia ludoviciana*	5		UPL
6. *Toxicodendron radicans*	5		FACU
7. *Asparagus officinalis*	5		FACU
8.			
9.			
10.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	15	X	FAC
2.			
	15 = Total Cover		

% Bare Ground in Herb Stratum 25%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 92

SOIL

Sampling Point: 92

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 5/2	100					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compact soil is present at 8 inches. Soils are assumed to be non-hydric due to the lack of hydric soil indicators in the top 8 inches, and the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 93

Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 35, 15N, 33W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 1-2

Subregion (LRR): G | Lat: 41.22497869 | Long: -101.074172 | Datum: NAD83

Soil Map Unit Name: 9999 - Water | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area

Wetland 93 is a spring fed PEMA/C wetland on the northern bank of Birdwood Creek. A groundwater spring flows through Wetland 93 and drains into Birdwood Creek. This area is adjacent to a riverine habitat depicted on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	55	X	FACW
2. *Sagittaria latifolia*	35	X	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 93a, 93b

SOIL

Sampling Point: 93

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 2/1	100					Sandy Loam	
6-12	10YR 2/1	40					Sandy Loam	
6-12	Gley 1 5/N	60					Loamy Sand	
12-22	Gley 1 2.5/N	80					Loamy Sand	
12-22	Gley 1 5/N	20					Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- X Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** __

Remarks:

Soils meet hydric soil indicator S4.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- X 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)
- __ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes __	No X	Depth (inches)	__	
Water Table Present?	Yes X	No __	Depth (inches)	6	
Saturation Present? (includes capillary fringe)	Yes X	No __	Depth (inches)	0-6	**Wetland Hydrology Present?** **Yes** X **No** __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Three primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **94**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-1**

Subregion (LRR): **G** | Lat: **41.22567364** | Long: **-101.0745709** | Datum: **NAD83**

Soil Map Unit Name: 4380: Loup complex, rarely flooded | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 94 documents a concave depression likely disturbed from cattle wallowing. This area has hydric soil; however, due to the lack of hydrophytic vegetation and sufficient wetland hydrology indicators, this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Chenopodium album*	5	X	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 95%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	____	x 4 =	____
UPL species	____	x 5 =	____
Column Totals:	____	(A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 94

SOIL

Sampling Point: 94

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 3/2	95	10YR 4/2	5	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet indicator F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- 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? (includes capillary fringe)	Yes ___	No X	Depth (inches)	___	**Wetland Hydrology Present?** **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Only one secondary indicator of wetland hydrology is observed; therefore this area does not meet wetland hydrology criteria. This area is likely trampled by livestock creating a concave wallow with sparse vegetation.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **95**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Pasture** | Local relief (concave, convex, none): **None** | Slope (%): **3-4**

Subregion (LRR): **G** | Lat: **41.22567665** | Long: **-101.0746877** | Datum: **NAD83**

Soil Map Unit Name: 4380: Loup complex, rarely flooded | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area
SP 95 documents an upland pasture adjacent to a cattle wallow.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Echinochloa crus-galli*	30	X	FAC
2. *Phleum pratense*	30	X	FACU
3. *Chenopodium album*	20	X	FACU
4. *Solanum rostratum*	10		FACU
5. *Amaranthus palmeri*	10		
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 95

SOIL

Sampling Point: 95

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 3/2	50					Sandy Loam	
0-22	10YR 4/2	50					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **96a**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Concave** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.22572804** | Long: **-101.073643** | Datum: **NAD83**

Soil Map Unit Name: **4380: Loup complex, rarely flooded** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Birdwood Creek and Birdwood Canal Study Area

Wetland 96 is a wetland complex consisting of Wetland 96a, a PEMA/C wetland and Wetland 96b, a Palustrine Forested Temporarily Flooded (PFOA) wetland represented by SP 96b. SP 96a documents a PEMA/C wetland at a spring where Channel 96 originates. Channel 96 is a spring fed intermittent channel with an OHWM approximately 1-3 feet wide. Several springs and seeps are present throughout the wetland complex. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

		Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')				
1.				
2.				
3.				
4.				
5.				
		= Total Cover		
Sapling/Shrub Stratum (Plot size: 15')				
1.				
2.				
3.				
4.				
5.				
		= Total Cover		
Herb Stratum (Plot size: 5')				
1.	*Impatiens capensis*	30	X	FACW
2.	*Schoenoplectus tabernaemontani*	30	X	OBL
3.	*Typha angustifolia*	20	X	OBL
4.	*Solidago gigantea*	10		FAC
5.	*Persicaria amphibia*	5		OBL
6.	*Poa pratensis*	5		FACU
7.				
8.				
9.				
10.				
		100 = Total Cover		
Woody Vine Stratum (Plot size: 30')				
1.				
2.				
		= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 96a, 96b, 96c

SOIL

Sampling Point: 96a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 6/1	50					Sandy Loam	
0-22	10YR 5/1	50					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet hydric soil indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	10	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	5-10	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025
Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 96b
Investigator(s): Sage Evans, Eric Allen-Banka | Section, Township, Range: 35, 15N, 33W
Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Concave | Slope (%): 2-4
Subregion (LRR): G | Lat: 41.22563016 | Long: -101.0737484 | Datum: NAD83
Soil Map Unit Name: 4380: Loup complex, rarely flooded | NWI classification: Freshwater Emergent
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks: Birdwood Creek and Birdwood Canal Study Area
Wetland 96b represents the PFOA portion of the Wetland 96 complex. Wetland 96b continues along Channel 96, a spring fed intermittent channel. Several springs and seeps are present throughout Wetland 96b. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	55	X	FAC
2. *Elaeagnus angustifolia*	10		FACU
3. *Morus alba*	5		FACU
4. *Ulmus pumila*	5		UPL
5.			
	75	= Total Cover	

Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Spartina pectinata*	63	X	FACW
2. *Phalaris arundinacea*	10		FACW
3. *Solidago gigantea*	10		OBL
4. *Typha angustifolia*	5		OBL
5. *Poa Pratensis*	5		FACU
6. *Bromus inermis*	5		UPL
7. *Schoenoplectus tabernaemontani*	2		OBL
8.			
9.			
10.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
__ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
PP 96b

SOIL

Sampling Point: 96b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 6/1	50					Sandy Loam	
0-22	10YR 5/1	50					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Soils meet hydric soil indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	10	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	5	**Wetland Hydrology Present?** Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Two primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **97**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Field Edge** | Local relief (concave, convex, none): **None** | Slope (%): **3-5**

Subregion (LRR): **G** | Lat: **41.22567828** | Long: **-101.0737489** | Datum: **NAD83**

Soil Map Unit Name: **4380: Loup complex, rarely flooded** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Birdwood Creek and Birdwood Canal Study Area

SP 97 is an upland out-point to Wetland 96a and Wetland 96b. This area is depicted as a freshwater emergent wetland on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	80	X	UPL
2. *Poa pratensis*	10		FACU
3. *Solidago altissima*	9		FACU
4. *Fraxinus pennsylvanica*	1		FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 97a, 97b

SOIL

Sampling Point: 97

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 3/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area slopes toward the Wetland 96 complex. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **98**

Investigator(s): **Sage Evans, Eric Allen-Banka** | Section, Township, Range: **35, 15N, 33W**

Landform (hillslope, terrace, etc.): **Berm** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.22507778** | Long: **-101.0741652** | Datum: **NAD83**

Soil Map Unit Name: **4380: Loup complex, rarely flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Birdwood Creek and Birdwood Canal Study Area
SP 98 is an upland out-point to Wetland 93 and Wetland 96b, and represents an upland area along Channel 96, a spring fed intermittent channel.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus pumila*	25	X	UPL
2.			
3.			
4.			
5.			
	25	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	75	X	UPL
2. *Chenopodium album*	10		FACU
3. *Nepeta cataria*	10		FACU
4. *Urtica dioica*	3		FAC
5. *Cannabis sativa*	2		UPL
6.			
7.			
8.			
9.			
10.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	5	X	FAC
2.			
	5	= Total Cover	

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 98

SOIL

Sampling Point: 98

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above Wetland 93 and Wetland 96b at the top of a Channel 96 bank. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **99**

Investigator(s): **Sage Evans** | Section, Township, Range: **9, 14N, 31W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **60-80**

Subregion (LRR): **G** | Lat: **41.20022727** | Long: **-100.8707792** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area

SP 99 documents an upland northern bank of Channel 99, Cody-Dillon Canal, a perennial channel with an OHWM approximately 25-60 feet wide. This SP is west of the diversion structure. This area is depicted on the NWI as a freshwater emergent wetland. The Cody-Dillon Canal is depicted on the NHD as an Other Flowline.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Ulmus pumila*	5	X	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Apocynum cannabinum*	45	X	FAC
2. *Bromus inermis*	20	X	UPL
3. *Ambrosia psilostachya*	5		FACU
4. *Cirsium arvense*	5		FACU
5. *Verbascum thapsus*	5		UPL
6. *Asclepias syriaca*	2		UPL
7.			
8.			
9.			
10.			
	82 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 18%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 99

SOIL

Sampling Point: 99

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 5/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Riprap

Depth (inches): 3

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of riprap is present at 3 inches. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) ____

(includes capillary fringe)

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 100

Investigator(s): Sage Evans | Section, Township, Range: 9, 14N, 31W

Landform (hillslope, terrace, etc.): Top of bank | Local relief (concave, convex, none): Convex | Slope (%): 10-20

Subregion (LRR): G | Lat: 41.20030295 | Long: -100.870802 | Datum: NAD83

Soil Map Unit Name: 6328: Lawet fine sandy loam, drained, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area

SP 100 documents an upland southern bank of Channel 100, the North Platte River, a perennial channel with an OHWM approximately 200-240 feet wide in this area. This SP is west of the diversion structure.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1. *Ulmus pumila*	10	X	UPL
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum Plot size: 15')			
1. *Ulmus pumila*	10	X	UPL
2. *Morus rubra*	5	X	FACU
3. *Ribes aureum*	2		FACU
4.			
5.			
	17	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	40	X	UPL
2. *Cannabis sativa*	15	X	UPL
3. *Verbascum thapsus*	5		UPL
4. *Helianthus annuus*	5		FACU
5. *Elymus canadensis*	5		FACU
6.			
7.			
8.			
9.			
10.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 100

SOIL

Sampling Point: 100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rocks

Depth (inches): Surface

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of rock is present at the surface. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland conditions. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 101

Investigator(s): Sage Evans | Section, Township, Range: 9, 14N, 31W

Landform (hillslope, terrace, etc.): Bank | Local relief (concave, convex, none): Convex | Slope (%): 8-10

Subregion (LRR): G | Lat: 41.20028418 | Long: -100.8704484 | Datum: NAD83

Soil Map Unit Name: 6328: Lawet fine sandy loam, drained, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area

SP 101 documents an upland southern bank of the North Platte River east of the diversion structure. This area is adjacent to a riverine habitat depicted on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Ulmus pumila*	35	X	UPL
2.			
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	55	X	UPL
2. *Cannabis sativa*	15		UPL
3. *Physalis longifolia*	10		UPL
4. *Chenopodium album*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 101

SOIL

Sampling Point: 101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 4/3	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Compaction

Depth (inches): 6

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of compat soils is present at 6 inches. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 102

Investigator(s): Sage Evans | Section, Township, Range: 9, 14N, 31W

Landform (hillslope, terrace, etc.): Shelf | Local relief (concave, convex, none): Concave | Slope (%): 0-1

Subregion (LRR): G | Lat: 41.20021195 | Long: -100.8703837 | Datum: NAD83

Soil Map Unit Name: 6328: Lawet fine sandy loam, drained, occasionally flooded | NWI classification: Freshwater Emergent

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Cody-Dillon Canal Study Area

Wetlands 102a-102e are PEMA/C fringe wetlands along the banks of the Cody-Dillon Canal. This area is depicted as a freshwater emergent wetland on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	90	X	FACW
2. *Echinochloa crus-galli*	5		FAC
3. *Phalaris arundinacea*	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

Photos: 102a, 102b, 102c

SOIL

Sampling Point: 102

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

No soil pit is taken due to steep conditions and inaccessibility to the bank shelf. Soils are assumed to be hydric because of the presence of dominant hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X 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)
- X Aquatic Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes	X	No	___	Depth (inches)	5-12
Water Table Present?	Yes	X	No	___	Depth (inches)	0-1
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:

Surface water observed is assumed to be associated with a high water table in the capillary fringe area. Three primary indicators and two secondary indicators of wetland hydrology are observed. Two softshell turtles were observed in this area.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: Lincoln County | Sampling Date: 7/17/2025

Applicant/Owner: Twin Platte Natural Resources District | State: NE | Sampling Point: 103

Investigator(s): Sage Evans | Section, Township, Range: 9, 14N, 31W

Landform (hillslope, terrace, etc.): Berm | Local relief (concave, convex, none): Convex | Slope (%): 2-6

Subregion (LRR): G | Lat: 41.20013123 | Long: -100.8704423 | Datum: NAD83

Soil Map Unit Name: 6328: Lawet fine sandy loam, drained, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area

SP 103 is an upland out-point representing the upland conditions surrounding Wetlands 102a-102e along the banks of the Cody-Dillon Canal.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Cannabis sativa*	50	X	UPL
2. *Cyclachaena xanthiifolia*	45	X	FAC
3. *Bassia scoparia*	5		FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	5	x 4 =	20
UPL species	50	x 5 =	250
Column Totals:	100 (A)		405 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 103

SOIL

Sampling Point: 103

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Outside of the bank shelves supporting Wetlands 102a-102e, the banks of the Cody-Dillon Canal are too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **104**

Investigator(s): **Sage Evans** | Section, Township, Range: **9, 14N, 31W**

Landform (hillslope, terrace, etc.): **Top of bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **18-25**

Subregion (LRR): **G** | Lat: **41.20011947** | Long: **-100.870777** | Datum: **NAD83**

Soil Map Unit Name: **6328: Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area
SP 104 represents an upland southern bank of the Cody-Dillon Canal locatd east of the diversion structure.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Amorpha fruticosa*	5	X	FACW
2. *Ulmus pumila*	5	X	UPL
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	80	X	UPL
2. *Solidago altissima*	10		FACU
3. *Glycyrrhiza lepidota*	5		FACU
4. *Ambrosia psilostachya*	5		FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 104

SOIL

Sampling Point: 104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 4/2	100					Silty Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 1

Hydric Soil Present? Yes ____ No X

Remarks:

A restrictive layer of rock is present at 1 inch. Soils are assumed to be non-hydric due to the lack of dominant hydrophytic vegetation and wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **105**

Investigator(s): **Sage Evans** | Section, Township, Range: **9, 14N, 31W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.19715443** | Long: **-100.8683785** | Datum: **NAD83**

Soil Map Unit Name: **6336: Lawet silt loam, occasionally flooded** | NWI classification: **Freshwater Emergent**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Cody-Dillon Canal Study Area

Wetland 105a - Wetland 105d are PEMA/C wetlands located within micro-depressions in a hayed field. The wetlands overlap with NWI mapped emergent wetlands.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Spartina pectinata*	75	X	FACW
2. *Hordeum jubatum*	25	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photos: 105a, 105b

SOIL

Sampling Point: 105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 3/2	98	7.5 YR 4/6	2	C	M	Loam	
5-30	10YR 3/1	98	7.5 YR 4/6	2	C	M	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

Soils meet indicator F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ 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 Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X 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 X 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:

Two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **106**

Investigator(s): **Sage Evans** | Section, Township, Range: **9, 14N, 31W**

Landform (hillslope, terrace, etc.): **Field** | Local relief (concave, convex, none): **None** | Slope (%): **1-2**

Subregion (LRR): **G** | Lat: **41.1969818** | Long: **-100.8683987** | Datum: **NAD83**

Soil Map Unit Name: **6336: Lawet silt loam, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area
SP 106 is an upland out-point representing the upland conditions surrounding Wetlands 105a-105d.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	95	X	UPL
2. *Plantago lanceolata*	5		FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 106

SOIL

Sampling Point: 106

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-30	10YR 2/1	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology area observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **7/17/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **107**

Investigator(s): **Sage Evans** | Section, Township, Range: **10, 14N, 31W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **10-15**

Subregion (LRR): **G** | Lat: **41.19142468** | Long: **-100.868301** | Datum: **NAD83**

Soil Map Unit Name: **3571: Humbarger loam, gravelly substratum** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Cody-Dillon Canal Study Area

SP 107 represents the upland banks of Channel 107, an unnamed human-made canal with intermittent flow and an OHWM approximately 4-7 feet wide. Channel 107 is depicted on the NHD as an Other Flowline.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Ulmus pumila*	5	X	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	30	X	UPL
2. *Helianthus annuus*	15		FACU
3. *Cannabis sativa*	15		UPL
4. *Bassia scoparia*	15		FACU
5. *Medicago sativa*	15		UPL
6. *Phalaris arundinacea*	5		FACW
7. *Rumex crispus*	5		FAC
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 107

SOIL

Sampling Point: 107

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-22	10YR 4/2	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The banks are too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **108**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Sand Bar/Terrace** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.18511** | Long: **-101.154586** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 108 is a fringe PEMA/C wetland along the southern bank of the North Platte River. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1. *Populus deltoides*	3	X	FAC
2. *Amorpha canescens*	2	X	UPL
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	20	X	FACW
2. *Phalaris arundinacea*	20	X	FACW
3. *Schoenoplectus pungens*	20	X	OBL
4. *Typha angustifolia*	20	X	OBL
5. *Bidens frondosa*	10		FACW
6. *Cyperus esculentus*	5		FACW
7. *Persicaria amphibia*	5		OBL
8. *Hordeum jubatum*	3		FACW
9. *Coreopsis tinctoria*	2		FAC
10.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photos: 108a, 108b, 108c, 108d

SOIL

Sampling Point: 108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					Sand	
3-12	10YR 5/1	85	10YR 4/6	5	CS	M	Sand	
3-12	10YR 2/1	10						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	3	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Four primary indicators and three secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **109**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Sand Bar** | Local relief (concave, convex, none): **Convex** | Slope (%): **2-4**

Subregion (LRR): **G** | Lat: **41.185036** | Long: **-101.154836** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 109 represents a slightly elevated portion of Wetland 108 along the southern bank of the North Platte River. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Panicum capillare*	25	X	FAC
2. *Phragmites australis*	20	X	FACW
3. *Schoenoplectus americanus*	20	X	OBL
4. *Echinochloa crus-galli*	20	X	FAC
5. *Lactuca serriola*	10		FAC
6. *Ambrosia artemisiifolia*	5		FACU
7. *Xanthium strumarium*	5		FAC
8.			
9.			
10.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 109

SOIL

Sampling Point: 109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	10YR 5/3	100					Sand	
9-18	10YR 4/3	70	10YR 3/6	30	CS	M	Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** __

Remarks:

The procedure described in the Great Plains Region USACE Delineation Manual, Chapter 5, pages 109-116, is used to evaluate soils to determine the area is a wetland. The soils at this site meet the criteria for problematic hydric soils, as indicators of hydrophytic vegetation and hydrology are present. The area is located in a floodplain and landscape position that is likely to collect or concentrate water. The following indicator(s) of problematic hydric soils is present (Fluvial Sediments within Floodplains), therefore the soils in this area should be considered hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- X Saturation (A3)
- __ Water Marks (B1)
- X Sediment Deposits (B2)
- X 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes __	No X	Depth (inches)	__	
Water Table Present?	Yes X	No __	Depth (inches)	14	
Saturation Present? (includes capillary fringe)	Yes X	No __	Depth (inches)	9	**Wetland Hydrology Present?** **Yes** X **No** __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the water table. Three primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **110**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Depression** | Local relief (concave, convex, none): **Concave** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.184841** | Long: **-101.155195** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Open Water 110 is a Palustrine Aquatic Bottom (PAB) open water feature located on a sandbar adjacent to Wetland 108. This area is depicted on the NWI as a riverine habitat.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Lemna minor*	2	X	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 98%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Photo 110

Photo:110
Algae and duckweed is present.

SOIL

Sampling Point: 110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

No soil pit is taken due to inundation. Soils are assumed to be hydric because of the presence of hydrophytic vegetation and sufficient wetland hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- X Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- X Aquatic Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- X 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)
- X Geomorphic Position (D2)
- __ FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches)	12-24	
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:

Surface water is assumed to be associated with a water table/capillary fringe. Frogs and fish are observed. Water is 1-2 feet deep. Sparsely vegetated with algae and duckweed. Four primary indicators and two secondary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **111**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Terrace/Sandbar** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.184571** | Long: **-101.15301** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 111 repreesnts a continuation of PEMA/C Wetland 108 along the southern bank of the North Platte River. This area has a mix of hydrophytic and non-hydrophytic vegetation and passes the prevalence index worksheet. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum Plot size: 15')			
1. *Elaeagnus angustifolia*	10	X	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		

Herb Stratum (Plot size: 5')			
1. *Phragmites australis*	150	X	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	150 = Total Cover		

Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	150	x 2 =	300	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	160	(A)	340	(B)
Prevalence Index = B/A =			2.13	

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo 111

SOIL

Sampling Point: 111

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					Sand	
3-16	10YR 4/2	85	10YR 4/6	15	CS	M	Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR F**)
- ___ 1 cm Muck (A9) (**LRR F, G, H**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- ___ Sandy Gleyed Matrix (S4)
- X Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR I, J**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soils meet indicator S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Fauna (B13)
- ___ 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)
- ___ Other (Explain in Remarks)

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)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches)	___	
Water Table Present?	Yes X	No ___	Depth (inches)	3	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches)	0	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Seven primary indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **112**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Rise** | Local relief (concave, convex, none): **Convex** | Slope (%): **10-15**

Subregion (LRR): **G** | Lat: **41.184821** | Long: **-101.155304** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Upland out-point for Wetland 108 located on a berm that extends from the southern bank of the North Platte River and intersects the wetland complex. This area is depicted as a riverine habitat on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Salix interior*	20	X	FACW
2. *Ambrosia artemisiifolia*	20	X	FACU
3. *Ambrosia psilostachya*	20	X	FACU
4. *Helianthus annuus*	15		FACU
5. *Panicum virgatum*	15		FAC
6. *Erigeron canadensis*	5		FACU
7. *Phragmites australis*	5		FACW
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 112

SOIL

Sampling Point: 112

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 6/3	100					Sand	
2-20	10YR 5/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **113**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-10**

Subregion (LRR): **G** | Lat: **41.184602** | Long: **-101.154145** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 113a and Wetland 113b are PEMA/C fringe wetlands along the northern and southern banks of the Platte Valley Canal. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	60	X	OBL
2. *Phalaris arundinacea*	40	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-):	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 113

SOIL

Sampling Point: 113

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
2-10	10YR 2/1	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- X Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

Soils meet indicators A4 and S1.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- __ High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Aquatic Fauna (B13)
- X 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)
- __ Other (Explain in Remarks)

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)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches)	1-2	
Water Table Present?	Yes _____	No X	Depth (inches)	_____	
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches)	0	**Wetland Hydrology Present?** **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the capillary fringe. Eight primary indicators and one secondary indicator of wetland hydrology is observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **114**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Slope** | Local relief (concave, convex, none): **Convex** | Slope (%): **65-70**

Subregion (LRR): **G** | Lat: **41.184601** | Long: **-101.1543** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Upland out-point for Wetland 113 on the bank slope of the Platte Valley Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	20	X	UPL
2. *Ambrosia psilostachya*	20	X	FACU
3. *Spartina pectinata*	15	X	FACW
4. *Convolvulus arvensis*	15	X	UPL
5. *Ambrosia artemisiifolia*	10		FACU
6. *Bassia scoparia*	10		FACU
7. *Setaria faberi*	10		UPL
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 114

SOIL

Sampling Point: 114

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10YR 6/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **115**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Floodplain** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.184818** | Long: **-101.154294** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 115 represents an upland area within the floodplain, elevated above the banks of the North Platte River and the Platte Valley Canal. One-hundred (100) percent planted alfalfa is present at this sample point and is not included in the calculations. Other vegetative species are present and are included in the dominance test. This area does not contain hydric soils or sufficient wetland hydrology indicators and is determined to be upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Setaria viridis*	10	X	UPL
2. *Cenchrus longispinus*	5	X	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 85%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	____	x 4 =	____
UPL species	____	x 5 =	____
Column Totals:	____ (A)		____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Photo: 115

SOIL

Sampling Point: 115

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 2/2	100					Silty Clay Loam	
12-20	10YR 3/1	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____	No X	Depth (inches)	____	**Wetland Hydrology Present?** Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is elevated above the banks of the North Platte River and the Platte Valley Canal. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **116**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Terrace** | Local relief (concave, convex, none): **Convex** | Slope (%): **5-10**

Subregion (LRR): **G** | Lat: **41.184819** | Long: **-101.152927** | Datum: **NAD83**

Soil Map Unit Name: **9999 - Water** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes X No ____

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

Wetland 116a, Wetland 116b, and Wetland 116c are PEMA/C wetlands located along bank terraces of the Platte Valley Canal. This area is depicted as a riverine habitat on the NWI.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	70	X	OBL
2. *Phalaris arundinacea*	30	X	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photo: 116

SOIL

Sampling Point: 116

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- X Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

Soils meet indicators A4 and S1.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- __ High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- X Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Aquatic Fauna (B13)
- X 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)
- __ Other (Explain in Remarks)

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)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes X	No _____	Depth (inches)	2-3	
Water Table Present?	Yes _____	No X	Depth (inches)	_____	
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches)	0	**Wetland Hydrology Present?** **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water and saturation are assumed to be associated with the capillary fringe. Eight primary indicators and one secondary indicator of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **117**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Bank** | Local relief (concave, convex, none): **Convex** | Slope (%): **65-70**

Subregion (LRR): **G** | Lat: **41.184851** | Long: **-101.153079** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 117 is an upland out-point that represents the upland conditions surrounding Wetlands 116a-116c along the banks of the Platte Valley Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	30	X	UPL
2. *Helianthus annuus*	20	X	FACU
3. *Ambrosia psilostachya*	20	X	FACU
4. *Xanthium strumarium*	10		UPL
5. *Setaria viridis*	10		UPL
6. *Bassia scoparia*	10		FACU
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 117

SOIL

Sampling Point: 117

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10YR 6/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This area is too steep to support wetland hydrology. No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **118**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Floodplain** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.185768** | Long: **-101.151152** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 118 represents an upland area within the floodplain, elevated above the banks of the North Platte River and the Platte Valley Canal. Ninety (90) percent planted alfalfa is present at this sample point and is not included in the calculations. Other vegetative species are present and are included in the dominance test. This area does not contain hydric soils or sufficient wetland hydrology indicators and is determined to be upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Setaria viridis*	10	X	UPL
2. *Ambrosia psilostachya*	10	X	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 80%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	____	x 4 =	____
UPL species	____	x 5 =	____
Column Totals:	____ (A)		____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation
__ 2 - Dominance Test is >50%
__ 3 - Prevalence Index is ≤3.0[1]
__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 118

SOIL

Sampling Point: 118

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-14	10YR 2/2	100					Silty Clay Loam	
14-20	10YR 3/1	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 ____ No X Depth (inches) ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **119**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Floodplain** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.186008** | Long: **-101.149687** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **None**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 119 documents an upland alfalfa field edge within the floodplain, near a row crop irrigation access. One-hundred (100) percent planted alfalfa is present at this sample point and is not included in the calculations. No other vegetative species are present. This area does not contain hydric soils or sufficient wetland hydrology indicators and is determined to be upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: ____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x 1 =	____
FACW species	____	x 2 =	____
FAC species	____	x 3 =	____
FACU species	____	x 4 =	____
UPL species	____	x 5 =	____
Column Totals:	____	(A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
Photo: 119

SOIL

Sampling Point: 119

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10YR 2/2	100					Silty Clay Loam	
16-20	10YR 3/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 X Depth (inches) _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **120**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Top of Bank** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.185575** | Long: **-101.153052** | Datum: **NAD83**

Soil Map Unit Name: **6337—Lawet silt loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 120 is an upland out-point for Wetland 108 located at the top of the southern bank of the North Platte River. This area is depicted as a riverine habitat on the NWI; however, this area is upland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	60	X	UPL
2. *Helianthus annuus*	10		FACU
3. *Bassia scoparia*	10		FACU
4. *Ambrosia psilostachya*	10		FACU
5. *Solidago canadensis*	5		FACU
6. *Ambrosia artemisiifolia*	3		FACU
7. *Verbascum thapsus*	2		UPL
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:
Photo: 120

SOIL

Sampling Point: 120

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10YR 3/2	100					Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **121**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Terrace** | Local relief (concave, convex, none): **None** | Slope (%): **0-2**

Subregion (LRR): **G** | Lat: **41.187144** | Long: **-101.150311** | Datum: **NAD83**

Soil Map Unit Name: **6328—Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	
Hydric Soil Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes X No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area
Wetland 121a and Wetland 121b are PEMA/C fringe wetlands along the banks of the Paxton-Hershey Canal.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Typha angustifolia*	80	X	OBL
2. *Schoenoplectus pungens*	20	X	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:
Photos: 121a, 121b

SOIL

Sampling Point: 121

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					Sand	
3-10	10YR 5/1	90					Sand	
	10YR 2/1	10					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- X Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** __

Remarks:

Soils meet hydric soil indicator S1.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X 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 Fauna (B13)
- X 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)
- __ Other (Explain in Remarks)

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)
- X FAC-Neutral Test (D5)
- __ Frost-Heave Hummocks (D7) (**LRR F**)

Field Observations:

Surface Water Present?	Yes __	No X	Depth (inches)	__	
Water Table Present?	Yes X	No __	Depth (inches)	3	
Saturation Present? (includes capillary fringe)	Yes X	No __	Depth (inches)	0	**Wetland Hydrology Present?** **Yes** X **No** __

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation is assumed to be associated with the high water table. Six primary indicators and one secondary indicator of wetland hydrology are observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET - Great Plains Region
See ERDC/EL TR-10-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: North Platte Area Irrigation Canal Diversion Modernization | City/County: **Lincoln County** | Sampling Date: **9/3/2025**

Applicant/Owner: **Twin Platte Natural Resources District** | State: **NE** | Sampling Point: **122**

Investigator(s): **Chase Jelden** | Section, Township, Range: **18, 14N, 33W**

Landform (hillslope, terrace, etc.): **Hillslope** | Local relief (concave, convex, none): **Convex** | Slope (%): **89-90**

Subregion (LRR): **G** | Lat: **41.18714** | Long: **-101.15028** | Datum: **NAD83**

Soil Map Unit Name: **6328—Lawet fine sandy loam, drained, occasionally flooded** | NWI classification: **Riverine Habitat**

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X		
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Wetland Hydrology Present?	Yes ____	No X		

Remarks: Platte Valley Canal and Paxton-Hershey Canal Study Area

SP 122 is an upland out-point located on an excavated hillslope of a canal. This area is depicted as a riverine habiat on the NWI; however, due to the lack of all three wetland criteria this area is upland.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5')			
1. *Bassia scoparia*	70	X	FACU
2. *Bromus inermis*	10		UPL
3. *Lactuca serriola*	10		FAC
4. *Setaria faberi*	5		UPL
5. *Ambrosia artemisiifolia*	5		FACU
6. *Ambrosia psilostachya*	5		FACU
7. *Helianthus annuus*	5		FACU
8.			
9.			
10.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- ____ 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks:

Photo: 122a, 122b

SOIL

Sampling Point: 122

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-20	10YR 6/2	100					Sand	Course gravel

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (**LRR F**)
- __ 1 cm Muck (A9) (**LRR F, G, H**)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Sandy Mucky Mineral (S1)
- __ 2.5 cm Mucky Peat or Peat (S2) (**LRR G, H**)
- __ 5 cm Mucky Peat or Peat (S3) (**LRR F**)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ High Plains Depressions (F16) (**MLRA 72 & 73 of LRR H**)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (**LRR I, J**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ High Plains Depressions (F16) (**LRR H outside of MLRA 72 & 73**)
- __ Reduced Vertic (F18)
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators are observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1)
- __ 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 Fauna (B13)
- __ 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)
- __ Other (Explain in Remarks)

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)
- __ 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 _____	No X	Depth (inches)	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology are observed.

APPENDIX D
Photo Log

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 1	Direction Photo Taken: North	Figure No: 4F

Wetland 1 is a fringe Palustrine Emergent Temporarily Flooded (PEMA/C) wetland along the southern bank of the Keith-Lincoln Canal, a perennial stream channel.



Photo No: 1b	Direction Photo Taken: Southeast	Figure No: 4E

Channel 1, the Keith Lincoln Canal, is a perennial stream channel.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 2	Direction Photo Taken: Northwest	Figure No: 4E

Sample Point (SP) 2 is an upland out-point to Wetland 1, located on the southern bank of the Keith Lincoln Canal.



Photo No: 3	Direction Photo Taken: Northwest	Figure No: 4E

Wetland 3 is a PEMA/C wetland in a depression.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 4	Direction Photo Taken: North	Figure No: 4E

SP 4 documents an upland area abutting Wetland 3 with a vegetative community dominated by saplings and shrubs.



Photo No: 5	Direction Photo Taken: North	Figure No: 4E

SP 5 is an upland out-point to Wetland 3.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 6	Direction Photo Taken: West	Figure No: 4E

SP 6 is an upland out-point to Wetland 7 located on the southern bank of Channel 6, the North Platte River, a perennial channel with an OHWM approximately 300 feet wide in this area.



Photo No: 7	Direction Photo Taken: Northwest	Figure No: 4E

Wetland 7 is a PEMA/C wetland along a bank shelf on the south bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 8	Direction Photo Taken: North	Figure No: 4E

SP 8 documents an upland depression in a forested area.



Photo No: 9	Direction Photo Taken: Southwest	Figure No: 4E

Wetland 9 is a PEMA/C wetland fringe along the Keith Lincoln Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 10	Direction Photo Taken: East	Figure No: 4E

SP 10 is an upland out-point to Wetland 9. This point is at the top of the bank, above Wetland 9.



Photo No: 11	Direction Photo Taken: Northwest	Figure No: 4E

Wetland 11 is a floodplain PSSA wetland on a bank shelf on the southeast bank of the North Platte Ri ver.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 12	Direction Photo Taken: Northwest	Figure No: 4E

SP 12 is an upland out-point to Wetland 11 located at the tip of the bank on the southeast side of the North Platte River.



Photo No: 13	Direction Photo Taken: North	Figure No: 4E

Wetland 13 is a PEMA/C wetland on a shelf on the southeast bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 14	Direction Photo Taken: Northwest	Figure No: 4E

SP 14 is an upland out-point to Wetland 13 located at the top of the southeast bank of the North Platte River.



Photo No: 15	Direction Photo Taken: South	Figure No: 4E

Wetland 15 is a PSSA fringe wetland on a shelf of the northwest bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 16	Direction Photo Taken: Southwest	Figure No: 4E

SP 16 is an upland out-point to Wetland 15 and Wetland 17b.



Photo No: 17	Direction Photo Taken: Southwest	Figure No: 4E

Wetland 17a and Wetland 17b are PEMA/C wetlands along the northwest bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 18	Direction Photo Taken: South	Figure No: 4E

SP 18 is an upland out-point to Wetland 17a.



Photo No: 19	Direction Photo Taken: Northeast	Figure No: 4E

Wetland 19 is a Palustrine Unconsolidated Bottom (PUB) open water feature with a 0–10-foot PEMA/C wetland fringe.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 20	Direction Photo Taken: North	Figure No: 4E

SP 20 is an upland out-point to Wetland 19.



Photo No: 21	Direction Photo Taken: Southeast	Figure No: 4E

Wetland 21 is a PSSA wetland along a bank shelf on the northeast side of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 22	Direction Photo Taken: South	Figure No: 4E

SP 22 is an upland out-point to Wetland 21.



Photo No: 23	Direction Photo Taken: North	Figure No: 4E

Wetland 23 is a PEMA/C wetland located in a depression north of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 24	Direction Photo Taken: Northwest	Figure No: 4E

Description: SP 24 is an upland out-point to Wetland 23.



Photo No: 25	Direction Photo Taken: North	Figure No: 4E

Description: Wetland 25 is a PEMA/C wetland located in a depression.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 26	Direction Photo Taken: North	Figure No: 4E

Description: SP 26 is an upland out-point to Wetland 25.



Photo No: 27	Direction Photo Taken: West	Figure No: 4E

Description: Wetland 27a (pictured) and Wetland 27b are PUB open water features with a 1-20 foot PEMA/C fringe.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 28	Direction Photo Taken: Southwest	Figure No: 4E

Description: SP 28 is an upland out-point to Wetland 27a.



Photo No: 29	Direction Photo Taken: Northwest	Figure No: 4E

Description: SP 29 is an upland out-point to Wetland 27a and Wetland 27b.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 30	Direction Photo Taken: Southwest	Figure No: 4E

Description: Wetland 30 is a PEMA/C wetland located in a depression.



Photo No: 31	Direction Photo Taken: Southwest	Figure No: 4E

Description: SP 31 is an upland out-point to Wetland 30.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 32	Direction Photo Taken: South	Figure No: 4E

Description: Wetland 32 is a PEMA/C wetland situated in a depression.



Photo No: 33	Direction Photo Taken: Northeast	Figure No: 4E

Description: Wetland 33a (pictured) and Wetland 33b are PEMA/C wetlands situated in depressions on each side of a trail/path.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 34	Direction Photo Taken: Southwest	Figure No: 4E

Description: SP 34 is an upland out-point to Wetland 32, Wetland 33a, and Wetland 33b.



Photo No: 35	Direction Photo Taken: East	Figure No: 4D

Description: SP 35 is an upland point located in an area depicted by the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 36	Direction Photo Taken: Northeast	Figure No: 4D

Description: SP 36 is an upland point located in an area depicted by the NWI as a riverine habitat; however, due to the lack of all three wetland criteria this area is upland.



Photo No: 37	Direction Photo Taken: West	Figure No: 4B

Description: Wetland 37a (pictured) and Wetland 37b are PEMA/C fringe wetlands located along Channel 37, an unnamed intermittent stream channel with an OHWM approximately 25 feet wide in this area. Channel 37 appears to have standing water at the time of the investigation.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 38	Direction Photo Taken: East	Figure No: 4B

Description: Wetland 38 is a PEMA/C fringe wetland located along Channel 37, an unnamed intermittent channel with an OHWM approximately 23 feet wide in this area. Channel 37 is conveyed west of the path via culvert. Channel 37 appears to have standing water at the time of the investigation.



Photo No: 39	Direction Photo Taken: East	Figure No: 4B

Description: SP 39 is an upland out-point to Wetland 37a, Wetland 37b, and Wetland 38 located at the top of the bank of Channel 37 near the path/trail.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 40	Direction Photo Taken: East	Figure No: 4B

Description: Wetland 40 is a PEMA/C fringe wetland along the banks of Channel 40, Duck Creek, an intermittent stream channel with an OHWM approximately 27 feet wide in this area. Duck Creek appears to have standing water at the time of the investigation.



Photo No: 41	Direction Photo Taken: Northeast	Figure No: 4B

Description: SP 41 is an upland out-point to Wetland 40a and 40b located at the top of the bank of Duck Creek.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 42	Direction Photo Taken: West	Figure No: 4B

Description: SP 42 documents the upland banks of Duck Creek on the west side of the path/trail. Duck Creek appears to have standing water at the time of the investigation. Fringe wetlands may be present outside of the Keith Lincoln Canal Study Area to the west.



Photo No: 43	Direction Photo Taken: Southeast	Figure No: 4G

Description: SP 43 documents an upland bank on the west side of Channel 43, Platte Valley Canal, a human-made diversion canal with perennial flow. The Platte Valley Canal has an OHWM approximately 35-45 feet wide.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 44a	Direction Photo Taken: West	Figure No: 4G

Description: SP 44 is an upland out-point to Wetland 45 located at the top of the northern bank of the Platte Valley Canal.



Photo No: 44b	Direction Photo Taken: East	Figure No: 4G

Description: SP 44 is an upland out-point to Wetland 45 located at the top of the northern bank of the Platte Valley Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 45	Direction Photo Taken: East	Figure No: 4G

Description: Wetland 45 is a 1-foot fringe PEMA/C wetland on a bank shelf on the north side of the Platte Valley Canal.



Photo No: 46	Direction Photo Taken: Northeast	Figure No: 4G

Description: SP 46 is an upland out-point to Wetland 47 located on the southeast bank of Channel 46, the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 47	Direction Photo Taken: Northeast	Figure No: 4G

Description: Wetland 47 is a PEMA/C wetland located on a bank shelf on the southern bank of the North Platte River.



Photo No: 48	Direction Photo Taken: Northwest	Figure No: 4G

Description: SP 48 is an upland out-point to Wetland 49a and Wetland 49b located at the top of the southern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 49	Direction Photo Taken: West	Figure No: 4G

Description: Wetland 49a (pictured) and Wetland 49b are PEMA/C fringe wetlands located along the southern bank of the North Platte River.



Photo No: 50	Direction Photo Taken: Northwest	Figure No: 4G

Description: Wetland 50a (pictured), Wetland 50b, and Wetland 50c are PEMA/C fringe wetlands surrounding a PUB open water feature, Open Water 50a (pictured).

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 51	Direction Photo Taken: West	Figure No: 4G

Description: SP 51 is an upland out-point to Wetland-50a, Wetland 50b, and Wetland 50c located on a sandy bank on the east side of the Open Water feature.



Photo No: 52	Direction Photo Taken: Northwest	Figure No: 4G

Description: Wetland 52a (pictured) and Wetland 52b are PEMA/C wetlands. Wetland 52a consists of a PEMA/C wetland surrounding a PUB open water feature.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 53	Direction Photo Taken: Northwest	Figure No: 4G

Description: SP 53 is an upland out-point to Wetland 52a and Wetland 52b.



Photo No: 54	Direction Photo Taken: Southeast	Figure No: 4G

Description: Wetland 54 is a PEMA/C wetland fringe on the northern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 55	Direction Photo Taken: East	Figure No: 4G

Description: SP 55 is an upland out-point to Wetland 54 and Wetland 52b located on an elevated berm.



Photo No: 56	Direction Photo Taken: Southeast	Figure No: 4H

Description: Wetland 56 is a PEMA/C wetland on the north bank of the Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 57	Direction Photo Taken: Southeast	Figure No: 4H

Description: SP 57 is an upland out-point to Wetland 56.



Photo No: 58	Direction Photo Taken: West	Figure No: 4H

Description: Wetland 58 is a PUB open water feature with a PEMA/C fringe.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 59	Direction Photo Taken: Southeast	Figure No: 4H

Description: SP 59 is an upland out-point to Wetland 50 and Wetland 60 located on an elevated berm between the two wetlands.



Photo No: 60	Direction Photo Taken: South	Figure No: 4H

Description: Wetland 60 is a PEMA/C wetland on the northern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 61	Direction Photo Taken: Southwest	Figure No: 4H

Description: Wetland 61 is a PEMA/C fringe along the southern bank of the North Platte River.



Photo No: 62	Direction Photo Taken: Southwest	Figure No: 4H

Description: SP 62 is an upland out-point to Wetland 61.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 63	Direction Photo Taken: East	Figure No: 4H

Description: SP 63 documents the southern upland bank of Paxton-Hershey Canal, a human made canal with perennial flow and an OHWM approximately 23-42 feet wide.



Photo No: 64	Direction Photo Taken: Northwest	Figure No: 4H

Description: Wetland 64 is a PSSA wetland abutting the northern bank of the Paxton-Hershey Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 65	Direction Photo Taken: Southeast	Figure No: 4H

Description: Wetland 65 is a PEMA/C wetland abutting Wetland 64 and the Paxton-Hershey Canal.



Photo No: 66	Direction Photo Taken: Southeast	Figure No: 4H

Description: SP 66 is an upland out-point to Wetland 64 and Wetland 65.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 67	Direction Photo Taken: South	Figure No: 4H

Description: Wetland 67a (pictured) and Wetland 67b are PEMA/C wetlands along the southern bank of the North Platte River.



Photo No: 68	Direction Photo Taken: Southwest	Figure No: 4I

Description: SP 68 is an upland out-point to Wetland 67a and Wetland 67b.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 69	Direction Photo Taken: Northeast	Figure No: 4N

Description: SP 69 documents the southern upland bank of Channel 69, the North Platte River, a perennial channel with an OHWM approximately 143-226 feet wide.



Photo No: 70	Direction Photo Taken: East	Figure No: 4N

Description: Wetland 70a (pictured) and Wetland 70b are PEMA/C fringe wetlands with similar characteristics. Wetland 70a is along the western bank of Channel 70, the Suburban Canal and Wetland 70b is along an unnamed intermittent channel, Channel 72.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 71	Direction Photo Taken: Northeast	Figure No: 4N

Description: SP 71 is an upland out-point to Wetland 70a.



Photo No: 72	Direction Photo Taken: East	Figure No: 4N

Description: SP 72 is an upland out-point to Wetland 70b, located on the northern bank of Channel 72, an unnamed channel with intermittent flow and an OHWM approximately 1-3 feet wide. Wetland 70b is only present on the southern bank of Channel 72.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 73	Direction Photo Taken: Northeast	Figure No: 4N

Description: Wetland 73a and Wetland 73b are PEMA/C wetlands along the southern bank of the North Platte River and they extend south into a pasture.



Photo No: 74	Direction Photo Taken: Northeast	Figure No: 4N

Description: SP 74 is an upland out-point to Wetland 73a and Wetland 73b.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 75	Direction Photo Taken: Southwest	Figure No: 4N

Description: SP 75 documents the upland banks along Channel 72, an unnamed intermittent channel that continues east and west of N Sand Rd via culvert.



Photo No: 76	Direction Photo Taken: Northeast	Figure No: 4N

Description: SP 76 is an upland out-point to Wetland 73b.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 77	Direction Photo Taken: Northeast	Figure No: 4N

Description: Wetland 77 is a PEMA/C wetland located in a depression north of the North Platte River.



Photo No: 78	Direction Photo Taken: Northeast	Figure No: 4N

Description: SP 78 is an upland out-point to Wetland 77.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 79	Direction Photo Taken: West	Figure No: 4N

Description: SP 79 documents an upland bank on the northwest side of the North Platte River.



Photo No: 80	Direction Photo Taken: Northeast	Figure No: 4N

Description: Wetland 80 is a PEMA/C wetland in a low-lying depression on the northeast side of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 81	Direction Photo Taken: Southeast	Figure No: 4N

Description: SP 81 is an upland out-point to Wetland 80 and Wetland 82.



Photo No: 82a	Direction Photo Taken: Northwest	Figure No: 4N

Description: Wetland 82 is a PSSA wetland adjacent to Wetland 80 along the northeast bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 82b	Direction Photo Taken: East	Figure No: 4N

Description: View along the northern bank of the North Platte River looking East from SP 82.



Photo No: 83	Direction Photo Taken: North	Figure No: 4J

Description: Wetland 83 is a fringe PEMA/C wetland on the southern bank of Birdwood Creek, a perennial channel with an OHWM approximately 32-77 feet wide.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 84	Direction Photo Taken: Southwest	Figure No: 4J

Description: SP 84 is an upland out-point to Wetland 83.



Photo No: 85	Direction Photo Taken: West	Figure No: 4J

Description: Wetland 85 is a PSSA wetland on the southern bank of Birdwood Creek.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 86	Direction Photo Taken: Southeast	Figure No: 4J

Description: Wetland 86a (pictured) and Wetland 86b are PEMA/C wetlands along the banks of Channel 86, Birdwood Canal, a perennial channel with an OHWM approximately 25-35 feet wide.



Photo No: 87	Direction Photo Taken: Northwest	Figure No: 4J

Description: SP 87 is an upland out-point for Wetland 83 and Wetland 85.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 88	Direction Photo Taken: Southeast	Figure No: 4J

Description: SP 88 is an upland out-point to Wetland 86a.



Photo No: 90	Direction Photo Taken: Northeast	Figure No: 4J

Description: SP 90 is an upland out-point to Wetland 91 located on the southern bank of Birdwood Creek.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 91	Direction Photo Taken: Northeast	Figure No: 4J

Description: Wetland 91a and Wetland 91b are PEMA/C fringe wetlands located on bank shelves on the southern bank of Birdwood Creek.



Photo No: 92	Direction Photo Taken: West	Figure No: 4J

Description: SP 92 is an upland out-point to Wetland 91a.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 93a	Direction Photo Taken: Northeast	Figure No: 4J

Description: Wetland 93 is a spring fed PEMA/C wetland on the northern bank of Birdwood Creek. A groundwater spring flows through Wetland 93 and drains into Birdwood Creek.



Photo No: 93b	Direction Photo Taken: East	Figure No: 4J

Description: View along the northern bank of Birdwood Creek looking East. The bank east of SP 93 has upland conditions.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 94	Direction Photo Taken: Northwest	Figure No: 4J

Description: SP 94 documents an upland concave depression likely disturbed from cattle wallowing.



Photo No: 95	Direction Photo Taken: East	Figure No: 4J

Description: SP 95 documents an upland pasture adjacent to a cattle wallow.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 96a	Direction Photo Taken: Southeast	Figure No: 4J

Description: Wetland 96a is a PEMA/C wetland at a spring where Channel 96 originates. Channel 96 is a spring fed intermittent channel with an OHWM approximately 1-3 feet wide.



Photo No: 96b	Direction Photo Taken: Southwest	Figure No: 4J

Description: SP 96b represents the PFOA portion of the Wetland 96 complex. This photo shows the transition from Wetland 96a (PEMA/C) to Wetland 96b (PFOA).

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 96c	Direction Photo Taken: Southwest	Figure No: 4J

Description: Channel 96 is a spring fed intermittent channel with an OHWM approximately 1-3 feet wide. Several springs and seeps are present throughout the Wetland 96 complex.



Photo No: 97a	Direction Photo Taken: East	Figure No: 4J

Description: SP 97 is an upland out-point to Wetland 96a and Wetland 96b.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 97b	Direction Photo Taken: Northeast	Figure No: 4J

Description: Upland hayed field located north of Wetland 96 complex.



Photo No: 98	Direction Photo Taken: West	Figure No: 4J

Description: SP 98 is an upland out-point to Wetland 93 and Wetland 96b and represents an upland area along Channel 96.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 99	Direction Photo Taken: West	Figure No: 4O

Description: SP 99 documents an upland northern bank of Channel 99, Cody-Dillon Canal. The Cody-Dillon Canal is a perennial channel with an OHWM approximately 25-60 feet wide.



Photo No: 100	Direction Photo Taken: West	Figure No: 4O

Description: SP 100 documents an upland southern bank of Channel 100, the North Platte River, a perennial channel with an OHWM approximately 200-240 feet wide in this area.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 101	Direction Photo Taken: Northeast	Figure No: 4O

Description: SP 101 documents an upland southern bank of the North Platte River east of the diversion structure.



Photo No: 102a	Direction Photo Taken: East	Figure No: 4O

Description: Wetland 102a and Wetland 102b (pictured) are PEMA/C wetlands along the banks of the Cody-Dillon Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 102b	Direction Photo Taken: Northwest	Figure No: 4O

Description: Wetland 102c is a PEMA/C wetland that extends within the banks of the Cody-Dillon Canal.



Photo No: 102c	Direction Photo Taken: East	Figure No: 4O

Description: Wetland 102d and Wetland 102e are PEMA/C wetlands along the banks of the Cody-Dillon Canal that extend east outside the Cody-Dillon Canal Study Area.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 103	Direction Photo Taken: East	Figure No: 4O

Description: SP 103 is an upland out-point representing the upland conditions surrounding Wetlands 102a-102e along the banks of the Cody-Dillon Canal.



Photo No: 104	Direction Photo Taken: West	Figure No: 4O

Description: SP 104 represents an upland southern bank of the Cody-Dillon Canal located east of the diversion structure.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 105a	Direction Photo Taken: North	Figure No: 4P

Description: Wetland 105a (pictured) through Wetland 105d are PEMA/C wetlands located within micro-depressions in a hayed field.



Photo No: 105b	Direction Photo Taken: South	Figure No: 4P

Description: Wetland 105d (pictured) is a PEMA/C wetland located in a low-lying area within a hayed field.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Figure No: 106	Direction Photo Taken: North	Figure No: 4P

Description: SP 106 is an upland out-point representing the upland conditions surrounding Wetlands 105a – 105d.



Photo No: 107	Direction Photo Taken: North	Figure No: 4Q

Description: SP 107 represents the upland banks of Channel 107, an unnamed human made canal with intermittent flow and an OHWM approximately 3-4 feet wide.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 108a	Direction Photo Taken: South	Figure No: 4H

Description: Wetland 108 is a fringe PEMA/C wetland along the southern bank of the North Platte River.



Photo No: 108b	Direction Photo Taken: West	Figure No: 4H

Description: Overview of Wetland 108, a fringe PEMA/C wetland along the southern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 108c	Direction Photo Taken: East	Figure No: 4H

Description: Overview of Wetland 108, a fringe PEMA/C wetland along the southern bank of the North Platte River.



Photo No: 108d	Direction Photo Taken: Northeast	Figure No: 4G

Description: Overview of Wetland 108, a fringe PEMA/C wetland along the southern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 109	Direction Photo Taken: South	Figure No: 4H

Description: SP 109 represents a slightly elevated portion of Wetland 108.



Photo No: 110	Direction Photo Taken: Northwest	Figure No: 4H

Description: Open Water 110 is a Palustrine Aquatic Bottom (PAB) open water feature on a sandbar down.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 111	Direction Photo Taken: West	Figure No: 4H

Description: SP 111 represents a continuation of PEMA/C Wetland 108 along the southern bank of the North Platte River.



Photo No: 112	Direction Photo Taken: North	Figure No: 4H

Description: Upland out-point for Wetland 108 located on a berm that extends from the southern bank of the North Platte River and intersects the wetland complex.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 113	Direction Photo Taken: West	Figure No: 4H

Description: Wetland 113a and Wetland 113b are PEMA/C fringe wetlands along the northern and southern banks of the Platte Valley Canal.



Photo No: 114	Direction Photo Taken: East	Figure No: 4H

Description: Upland out-point for Wetland 113 on the bank slope of the Platte Valley Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 115	Direction Photo Taken: East	Figure No: 4H

Description: SP 115 represents an upland area within the floodplain, elevated above the banks of the North Platte River and the Platte Valley Canal.



Photo No: 116	Direction Photo Taken: East	Figure No: 4H

Description: Wetland 116a, Wetland 116b, and Wetland 116c are PEMA/C wetlands located along bank terraces of the Platte Valley Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 117	Direction Photo Taken: West	Figure No: 4H

Description: SP 117 is an upland out-point that represents the upland conditions surrounding Wetlands 116a-116c along the banks of the Platte Valley Canal.



Photo No: 118	Direction Photo Taken: West	Figure No: 4I

Description: SP 118 represents an upland area within the floodplain, elevated above the banks of the North Platte River and the Platte Valley Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 119	Direction Photo Taken: West	Figure No: 4I

Description: SP 119 documents an upland alfalfa field edge near a row crop irrigation access.



Photo No: 120	Direction Photo Taken: East	Figure No: 4H

Description: SP 120 is an upland out-point for Wetland 108 located at the top of the southern bank of the North Platte River.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 121a	Direction Photo Taken: West	Figure No: 4I

Description: Wetland 121a and Wetland 121b are PEMA/C fringe wetlands along the banks of the Paxton-Hershey Canal.



Photo No: 121b	Direction Photo Taken: East	Figure No: 4I

Description: Wetland 121a and Wetland 121b continue east, outside the Platte Valley Canal and Paxton-Hershey Canal Study Area.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 121c	Direction Photo Taken: East	Figure No: 4I

Description: Overview of Channel 63, the Paxton-Hershey Canal.



Photo No: 122a	Direction Photo Taken: East	Figure No: 4I

Description: SP 122 is an upland out-point located on an excavated hillslope of a canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 122b	Direction Photo Taken: Northwest	Figure No: 4I

Description: Overview of Wetland 121a from the southern upland hillslope of the canal.



Photo No: 123	Direction Photo Taken: West	Figure No: 4H

Description: Overview of Channel 43, Platte Valley Canal.

PHOTO LOG

Project Name: North Platte Area Irrigation Canal Diversion Modernization Project	Site Location: Keith & Lincoln Counties, NE	Project No: 022-04885



Photo No: 124	Direction Photo Taken: East	Figure No: 4H

Description: Overview of Channel 43, Platte Valley Canal.

NORTH PLATTE AREA IRRIGATION CANAL DIVERSION MODERNIZATION PROJECT PLAN

North Platte, Keith and Lincoln Counties, Nebraska

October 2025

Olsson Project No. 022-04885