CROWLEY | FLECK PLLP
ATTORNEYS

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July 22, 2025

Via Electronic Mail & Hand Delivery

Mr. Steve Kahl
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480
ndpsc@nd.gov

In re: ONEOK Bakken Pipeline, L.L.C.
Tioga Extension Pipeline Project - Williams County
Siting Application
Case No. PU-25-172
Our File No. 072591-000011

Dear Mr. Kahl:

Enclosed for filing in the above-referenced matter, please find eight copies of the Supplemental Application Summary, including the following:

1) Attachment A – Revised Application Exhibits A.2 and C;
2) Attachment B – Natural Resources Survey Report;
3) Attachment C – Supplemental Agency Correspondence; and
4) Attachment D – Crossing Permits.

Also enclosed is a USB drive containing supplemental GIS files for the project.

Please feel free to contact me if you have any questions. Thank you.

Sincerely,

/s/ Casey A. Furey

Casey A. Furey

CAF/lh
Enc.
cc: Michael Dailey (via email)
Bill Miller (via email)
Wade Mann (via email)
Christopher Hanson (via email)
Brian Johnson (via email)

31 PU-25-172 Filed 08/01/2025 Pages: 219
Exhibit 2 - Supplemental Application Summary (Dkt #23)

ONEOK Bakken Pipeline, L.L.C.

23 PU-25-172 Filed 07/22/2025 Pages: 219
Supplemental Application Summary with Attachments

ONEOK Bakken Pipeline, L.L.C.
Casey Furey, Crowley Fleck, PLLP

1.0 INTRODUCTION

ONEOK Bakken Pipeline, L.L.C. (ONEOK), a wholly owned subsidiary of ONEOK, Inc., submits to the North Dakota Public Service Commission (NDPSC) supplemental information regarding its siting Application for the Tioga Extension Project (Project). A single consolidated Certificate of Corridor Compatibility and Route Permit Application (Application) was provided to the NDPSC on 28 April 2025. Since the Application submittal, ONEOK has identified the need to alter four sections of the proposed pipeline Route within the Project Corridor defined in the original Application. The Certificate of Corridor Compatibility portion of the Application remains unchanged, and as such, is not part of this Application supplement.

2.0 ROUTE MODIFICATIONS

The proposed modifications include shifts in the Project Route between approximate mileposts (MP) 0.7 to 4.8 and MP 6.4 to 7.3. All modifications to the Project Route are within the Project Corridor and no changes to the Corridor are proposed. The Project Route included in the Application and proposed modified Route are depicted in the maps included in Attachment A (Revised Exhibit A.2). The Route modifications did not result in changes to the assessment of siting criteria and avoidance and exclusion areas described in the Application.

In addition, the plot plan for the Hess Tioga Meter Site has been updated to show the emergency power generator. See Revised Exhibit C which is included with Attachment A of this document. The emergency generator functions in the event of power failure to maintain operation of the emergency shut-off valve.

ROUTE MODIFICATION #1: MP 0.7 TO 1.5

Subsequent to filing of the Application, ONEOK conducted natural resource field surveys within the Corridor to identify locations of federally-threatened Dakota skipper (DASK) potentially suitable habitat and U.S Fish and Wildlife Service (USFWS) wetlands under easement. Field survey information clarified the extent of DASK habitat and confirmed the wetland boundaries. The field delineation of suitable DASK habitat and of USFWS wetland easements has enabled ONEOK to make Route modifications between MP 0.7 and 1.5. In accordance with the recommendation made by the USFWS in their letter dated April 2, 2025, ONEOK will install fencing to isolate suitable DASK habitat from the Route. The distance between the modified Route and the Application Route varies from 1 to 200 feet, as depicted in Revised Exhibit A.2.

ROUTE MODIFICATION #2: MP 1.5 TO 4.8

Subsequent to filing of the Application, ONEOK also continued field investigations to locate foreign lines and coordinate with utilities in the Project area to precisely identify the location of existing utilities in the Project Corridor. The Route modification between MP 1.5 to 4.8 was designed to adjust the location and frequency of foreign line crossings. The Route modification shifts the original alignment by approximately 2 feet to 100 feet between MP 1.5 and 4.8.

ROUTE MODIFICATION #3: MP 6.4 TO 7.1

Similar to Route Modification #2, the Route modification between MP 6.4 to 7.1 was designed to adjust the location and frequency of foreign line crossings. The Route modification shifts the original alignment approximately 15 feet southeast between MP 6.4 to 7.1.

ROUTE MODIFICATION #4: MP 7.1 TO 7.3

Based on the field investigations, the Route modification between MP 7.1 and 7.3 was designed to adjust the collocated distance from foreign lines and more efficiently construct the pipeline using traditional open trench methods versus horizontal directional drill. The Route modification shifts the original alignment approximately 17 feet southeast between MP 7.1 and 7.3.

3.0 ENVIRONMENTAL STUDIES AND AGENCY COORDINATION

On behalf of ONEOK, Environmental Resources Management (ERM) conducted natural resource surveys between 26 and 29 May 2025 and 6 June 2025 to identify wetlands, waterbodies, habitat for sensitive species, the presence of noxious weeds, and topsoil conditions. ONEOK prepared a Natural Resources Survey report, included as Attachment B. Results informed some Project Route modifications as described above to allow for efficient construction while avoiding field surveyed wetland resources and protected species habitat, including the Dakota skipper, as shown in Appendix A of the Natural Resource Survey Report (see Attachment B). The results of the surveys provide further information for ONEOK to implement the conservation measures described in Sections 5.2 and 5.3 of the Application. On 3 June 2025, ONEOK and ERM held a conference call with the U.S. Fish and Wildlife Service (USFWS) to present the survey results and confirmed during the meeting that the avoidance measures provided in the 2 April 2025 USFWS response letter remained applicable to avoid impacts to Dakota skipper. The Dakota skipper habitat field data was provided to USFWS via email on 24 June 2025. A copy of this correspondence is included in Attachment C.

ONEOK provided the USFWS with Project notification on March 12, 2025, and requested review of the Project Study Area for locations of USFWS-administered easements. In their response from March 13, 2025, USFWS confirmed that the Project Route crosses two wetlands under easement. The locations of the protected wetlands relative to the Project Route were verified in the field during a meeting between ERM and USFWS, and the results provided via a shapefile to the USFWS on 24 June 2025. The USFWS responded on 24 June 2025 with no further comment. A copy of this correspondence is included in Attachment C.

ONEOK has consulted with federal, state, and local agencies requesting review of a 1-mile Study Area surrounding the Project. All Route changes proposed are well within the 1-mile Study Area and Project corridor provided to the agencies, however, U.S. Department of Agriculture Farm Service Agency (FSA) requested to be notified of any Route modifications. ONEOK provided notification of the Route modifications to the FSA and will provide copies of the response to the NDPSC upon receipt, if received. A copy of this correspondence is included in Attachment C.

Since submitting the Application, ONEOK has consulted with Williams County and R&T Water District to obtain permit approvals for the crossings of county roadways and water lines. The crossing permit approvals are provided as Attachment D.

An updated Summary of Agency Correspondence table (Table 6 in the Application) is included below. Rows shaded in the table have been updated since the Application was submitted.

UPDATED SUMMARY OF AGENCY CORRESPONDENCE

NDAC 69-06-01-05[a]	Agency	Submittal	Response Date	Summary of Response
1	Aeronautics Commission	2/20/2025	Pending	
2	Attorney General	2/20/2025	Pending	
3	United States Department of Agriculture	2/20/2025 7/11/2025	4/21/2025 4/30/25	Farm Service Agency provided CRP location. Confirmed no additional review needed by USDA National Office.
3	North Dakota Department of Agriculture	2/20/2025	Pending	
4	State Department of Health	2/20/2025	Pending	
5	Department of Human Services	2/20/2025	Pending	
6	Department of Labor and Human Rights	2/20/2025	Pending	
7	Department of Career and Technical Education	2/20/2025	Pending	
8	Department of Commerce	2/20/2025	Pending	
9	Energy Infrastructure and Impact Office	2/20/2025	Pending	
10	North Dakota Game and Fish Department	3/12/2025	3/18/2025 4/4/2025	No known bald or golden eagle nests within 0.5 miles of the Project area. The Project is not anticipated to have adverse effects on wildlife or wildlife habitat. BMPs encouraged regarding prairies, wetlands, and raptor nests.
11	Industrial Commission	2/20/2025	Pending	
12	Governor's Office	2/20/2025	Pending	
13	Department of Transportation	2/20/2025	3/12/2025	Project will have no adverse effect on NDDOT highways. If work on the highway right-of-way is necessary due to the Project, ROW permits, and risk management documents will be required.

NDAC 69-06-01-05[a]	Agency	Submittal	Response Date	Summary of Response
14	North Dakota State Historic Preservation Office	3/12/2025 3/18/2025	3/13/2025 3/18/2025 4/3/2025	Cultural sites should be avoided through the use of fencing and recommended buffer distances between sites and construction.
15	Indian Affairs Commission	2/20/2025	Pending	
16	Job Service North Dakota	2/20/2025	Pending	
17	North Dakota Department of Trust Lands – Minerals Management and School/Surface Trust	2/20/2025	3/12/2025	Acknowledgment of Project application and commitment to coordinating agreements with North Dakota Department of Trust Lands ROW.
18	North Dakota Parks and Recreation Department (NDPRD)	2/20/2025	3/6/2025	Project will not affect species of concern or properties owned or protected by NDPRD.
19	Natural Resources Conservation Service	2/21/2025	3/5/2025	Response outlining farmland protection and wetland preservation obligations.
20	State Water Commission (now known as North Dakota Department of Water Resources)	2/20/2025	3/17/2025	No immediate permitting needed. Request for ONEOK to work with the agency and keep them informed.
21	United States Department of Defense	2/20/2025	Pending	
22	United States Fish and Wildlife Service, Wetland Management District	3/12/2025 6/24/2025	3/13/2025 5/28/2025 6/24/2025	3/13/25: One parcel identified by USFWS with two wetlands that may be impacted. Request to avoid or bore. 5/28/25: Onsite meeting with USFWS to review boundary of wetlands under USFWS easement. 6/24/25: Supplied wetland easement field data to USFWS.

NDAC 69-06-01-05[a]	Agency	Submittal	Response Date	Summary of Response
22	United States Fish and Wildlife Service, Field Service Office	3/12/2025 6/24/2025	4/2/2025 6/3/2025	4/2/25: No further concerns from USFWS for incidental take to federally listed species. 6/3/25: Meeting to discuss Dakota skipper habitat field survey results and avoidance measures. 6/24/25: Supply Dakota skipper habitat field data to USFWS.
23	USACE	2/20/2025	2/28/2025	Provided information on USACE Section 404 Permits.
24	Federal Aviation Administration	2/20/2025	Pending	
25	County Commission Williams County Board of Commissioners	2/20/2025	Pending	
25	County Commission Williams County Planning and Zoning	2/20/2025	Pending	
25	Williams County Water Resource District	2/20/2025	3/20/2025	No comments relating to the Project.
25	County Commission Williams County Weed Control Board	2/20/2025	Pending	
25	Williams County Tioga Township	2/20/2025	5/20/2025	Township road crossing permit approved.
25	Williams County Lindahl Township	4/8/2025 4/14/2025	4/8/2025	Township road crossing permit approved.
25	Williams County City of Tioga	2/20/2025	3/5/2025	No concerns or permits needed from the City of Tioga.
26	North Dakota Transmission Authority	2/20/2025	2/20/2025	Expressed support and appreciation of Project.
27	North Dakota Pipeline Authority	2/20/2025	Pending	
28	Department of Environmental Quality	2/20/2025	3/14/2025	Outlined BMPs.
29	North Dakota Geological Survey	2/20/2025	3/5/2025	No noted geologic concerns within the proposed Project Corridor.

NDAC 69-06-01-05[a]	Agency	Submittal	Response Date	Summary of Response
30	North Dakota Forest Service	2/20/2025	Pending	
31	Federal Bureau of Land Management	2/20/2025	2/25/2025	Bureau of Land Management managed lands not involved – no further comments.
32	Military Aviation and Installation Assurance Siting Clearinghouse	2/20/2025	4/17/2025	Review indicated the Project will have minimal impact on military operations in the area.
33	Twentieth Airforce Ninety-First Missile Wing	2/20/2025	2/21/2025	No assets in the Project area.
34	Minot Air Force Base	2/20/2025	2/21/2025	No assets in the Project area.
35	Grand Forks Air Force Base	2/20/2025 4/11/2025	4/18/2025	No comments on the Project.
N/A	Western Area Water Supply Authority (WAWSA)	2/20/2025	2/25/2025	Suggested ONEOK work with R&T Water District to permit water line crossings.

[a] https://www.ndlegis.gov/information/acdata/pdf/69-06-01.pdf

ATTACHMENT A

REVISED APPLICATION EXHIBITS A.2 & C

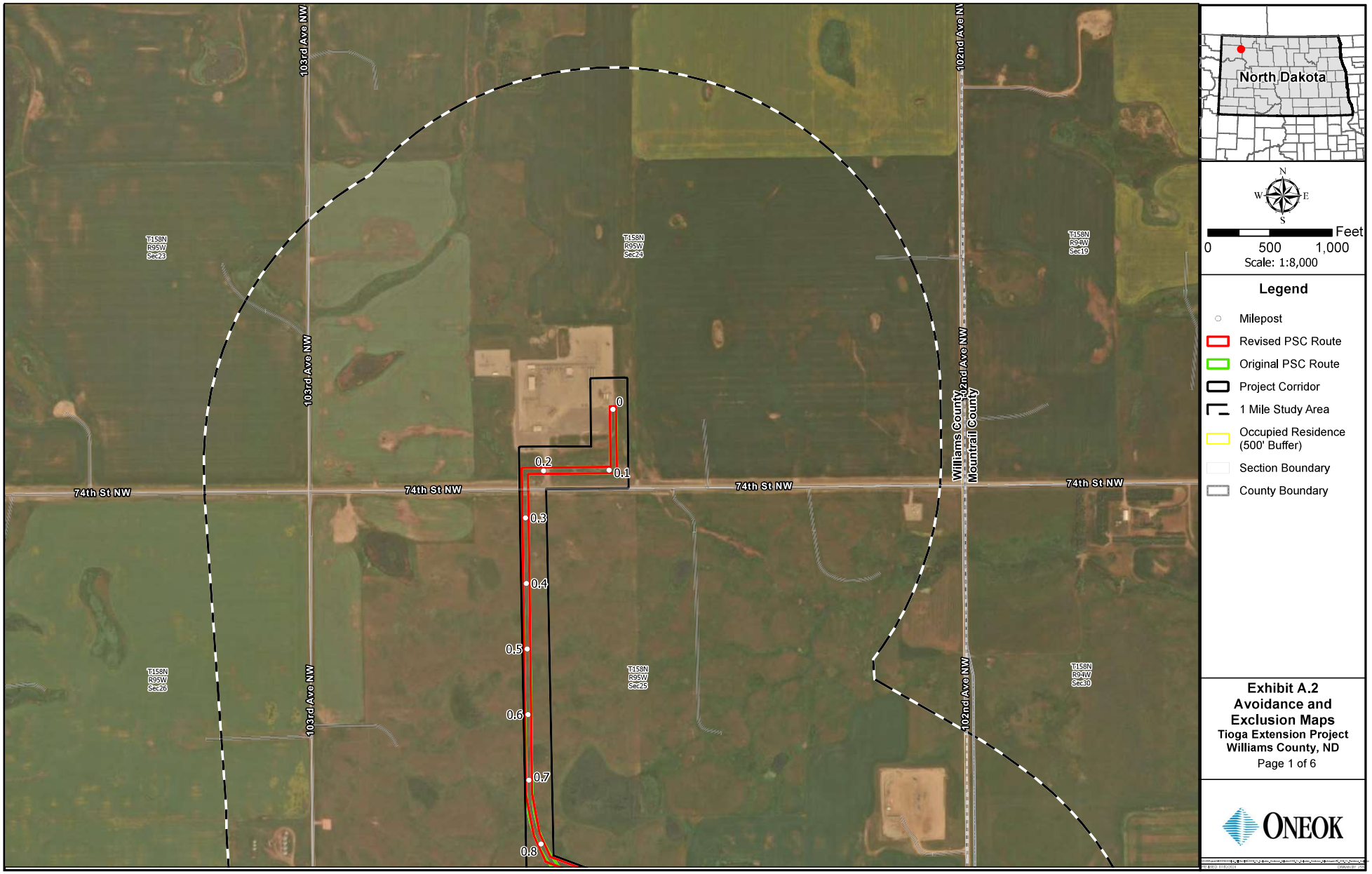

Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 1 of 6

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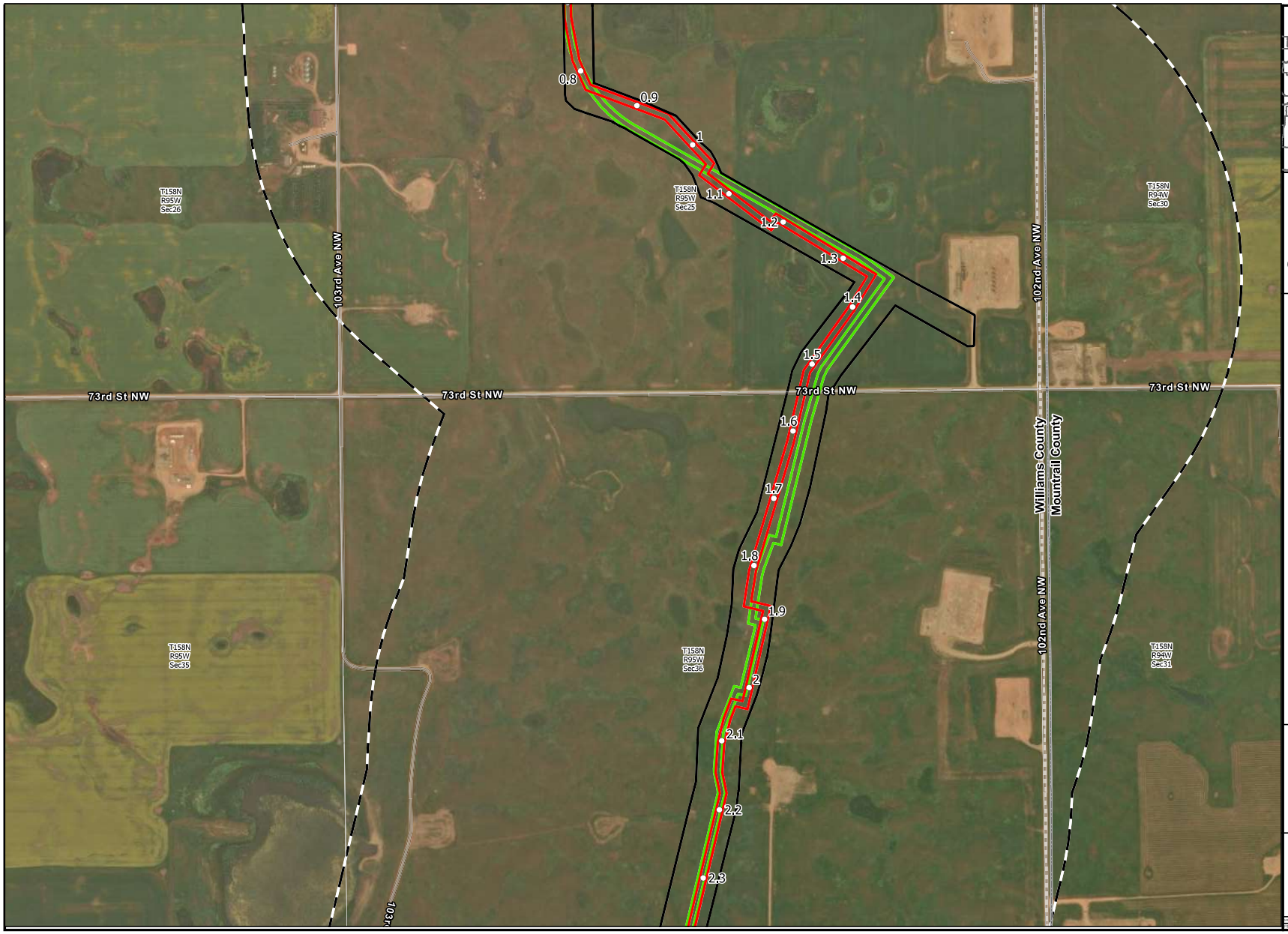

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- Revised PSC Route
- Original PSC Route
- Project Corridor
- 1 Mile Study Area
- Occupied Residence (500' Buffer)
- Section Boundary
- County Boundary

Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 2 of 6

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- Milepost
- Occupied Residence
- Revised PSC Route
- Original PSC Route
- Project Corridor
- 1 Mile Study Area
- Occupied Residence (500' Buffer)
- Section Boundary
- County Boundary

Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
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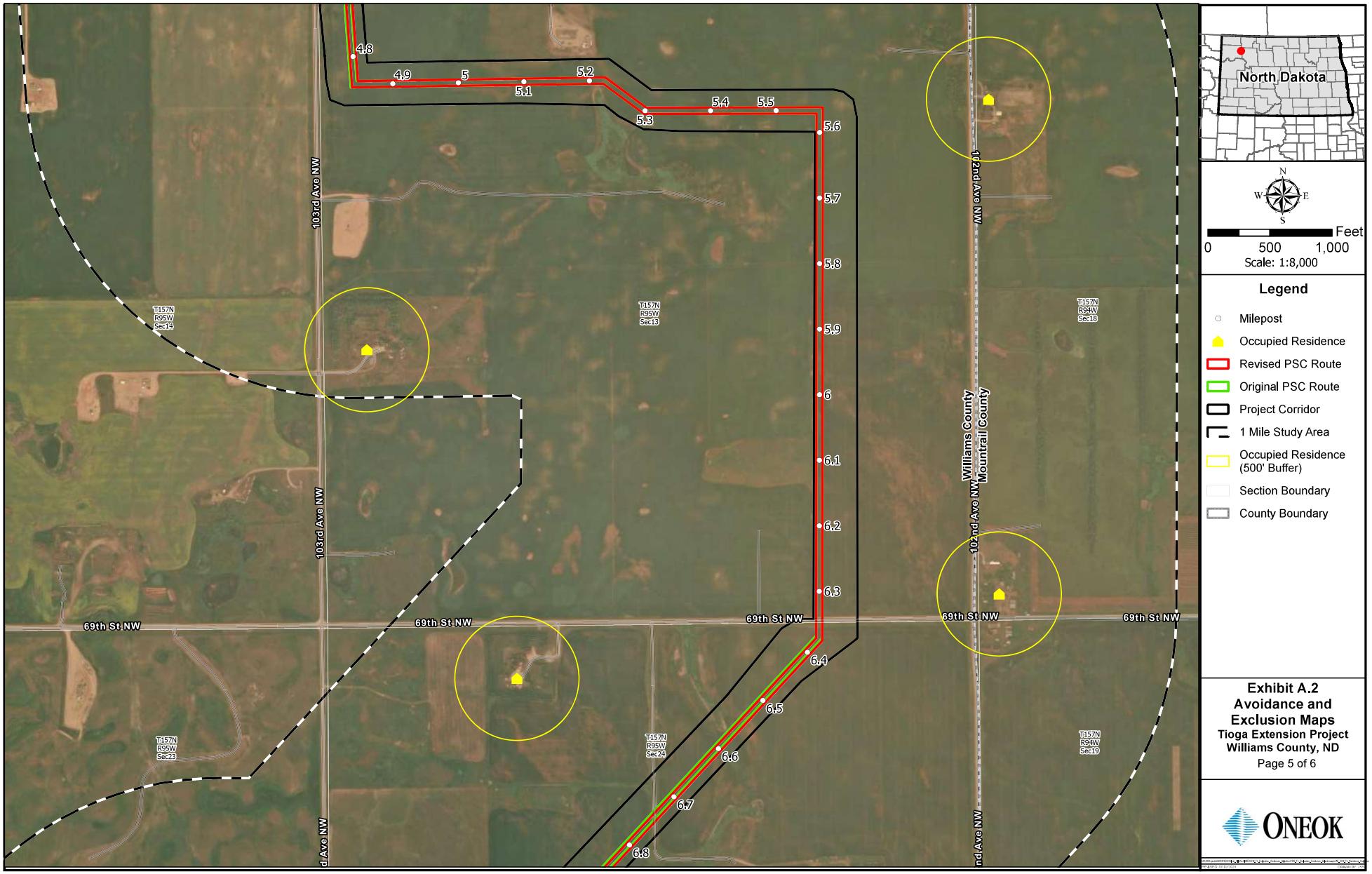
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1 Mile Study Area
Occupied Residence (500' Buffer)
Section Boundary
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Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
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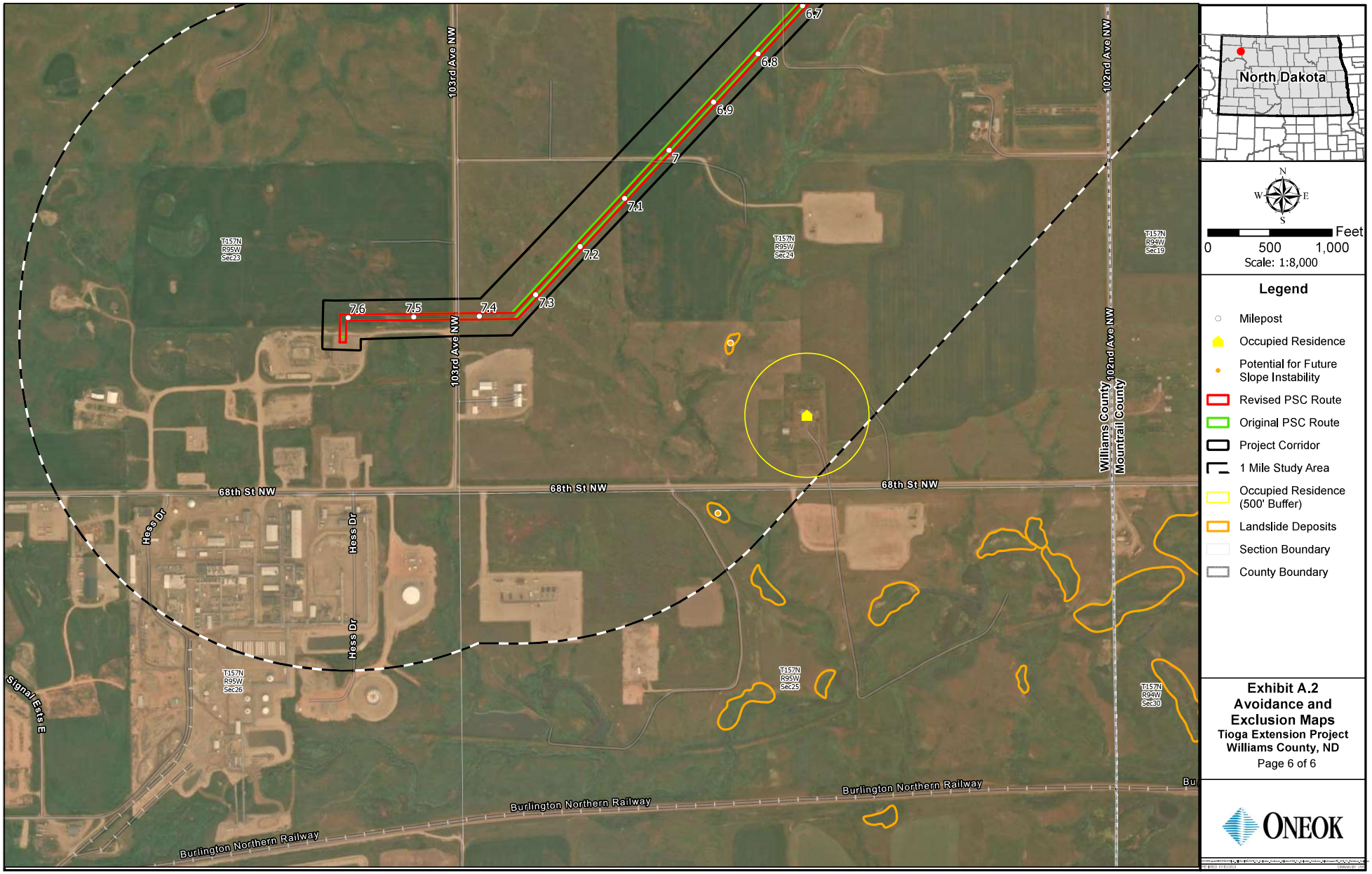
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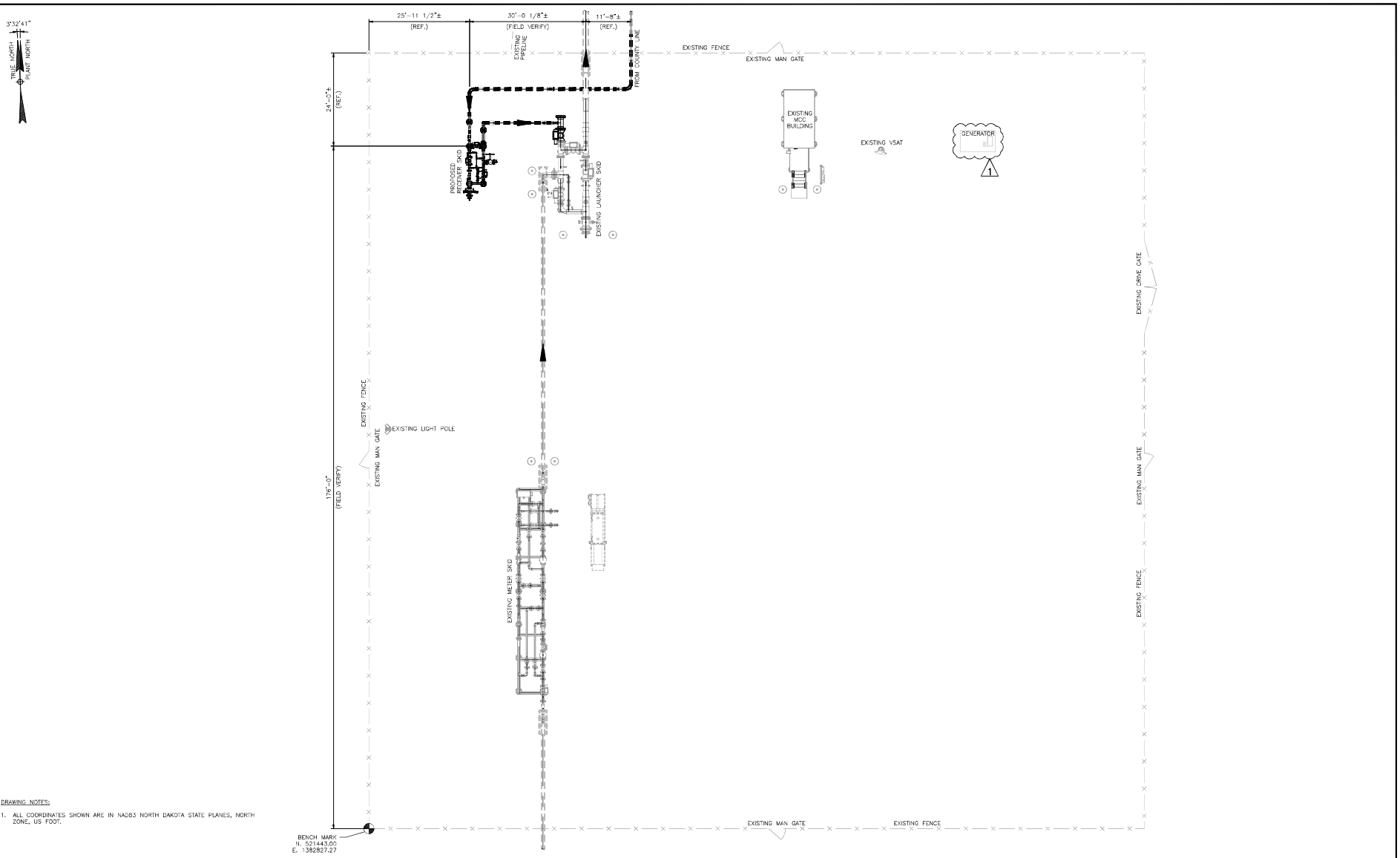
Original PSC Route
Project Corridor
1 Mile Study Area
Occupied Residence (500' Buffer)
Landslide Deposits
Section Boundary
County Boundary
Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 6 of 6
ONEOK



DRAWING NOTES:

1. ALL COORDINATES SHOWN ARE IN NAD83 NORTH DAKOTA STATE PLANES, NORTH ZONE, US FOOT.

REVISED - ISSUED FOR
07/18/2025
PERMIT ONLY

TRC
8521 Richard Rd
Houston, TX 77053
Telephone: (281) 437-8214
North Dakota Registered Engineering Firm 29989PE

NO.	REVISION-DESCRIPTION	BY	DATE
1	REVISED - ISSUED FOR PERMIT	BAC	07/18/25
0	ISSUED FOR CONSTRUCTION	BAC	06/16/25

DWG. NO. | REFERENCE DRAWING TITLE

BOOK NO. | PAGES | REF. FIELD NOTES

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ONEOK ROCKIES MIDSTREAM / BAKKEN PIPELINE

TIOGA MS
PLOT PLAN

WILLIAMS CO. NORTH DAKOTA

DWG. NO. BAK-M-TIO-M1

ATTACHMENT B

Natural Resources Survey Report

Tioga Extension Pipeline Project

Natural Resources Report

PREPARED FOR

ONEOK

DATE
8 July 2025

REFERENCE
0760120

CONTENTS

ACRONYMS AND ABBREVIATIONS

Acronyms	Description
APT	USACE Antecedent Precipitation Tool
ERM	Environmental Resources Management, Inc
FACW	Facultative Wetland
FEMA	Federal Emergency Management Agency
FR	Federal Register
HUC	Hydrologic Unit Code
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
ONEOK	ONEOK, Inc.
PEM	Palustrine Emergent
RPW	Relatively Permanent Water
SSURGO	Soil Survey Geographic database
TNW	Traditional Navigable Water
U.S.	United States
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the United States

1. INTRODUCTION

Environmental Resources Management (ERM) is providing environmental support services to ONEOK Bakken Pipeline, L.L.C. (ONEOK) for the Tioga Extension Project (Project), an approximate 7.6-mile-long, 6-inch-diameter new construction natural gas liquids pipeline in Williams County, North Dakota. The pipeline extends from the existing Argent Midstream County Line Gas Plant to the ONEOK meter site within the Hess Tioga Plant.

ERM developed the following Natural Resources Report to provide the results of biological surveys from May 26, 2025 to May 30, 2025, and June 6, 2025 within the Survey Corridor (Project Area). The Project Area is defined as a corridor of varying width that is synonymous with the North Dakota Public Service Commission (PSC) corridor to accommodate Project routing and workspace planning. The total Project Area assessed in this report is approximately 652.26 acres.

The purpose of the natural resources survey is to identify, characterize, and document environmental features within the Project Area to support regulatory compliance and project planning. This report presents the methods and results of field surveys conducted by ERM to assess wetlands, waterbodies, habitat for sensitive species, presence of noxious weeds, and topsoil conditions. These surveys were conducted to inform the environmental review process and ensure consistency with applicable federal, state, and local regulations, including Section 404 of the Clean Water Act (CWA) and requirements set forth by the North Dakota Public Service Commission (NDPSC). Where applicable, wetlands and waterbodies were evaluated for their potential status as Waters of the United States (WOTUS), which may be subject to U.S. Army Corps of Engineers (USACE) jurisdiction.

2. SITE LOCATION

The Project spans approximately 7.6 miles in Williams County, North Dakota, beginning at coordinates 48.490524, -102.897447 within the Argent Midstream County Line Gas Plant, and terminating at coordinates 48.404816, -102.911059, at the ONEOK Tioga Lateral meter station within the Hess Tioga Plant. The Project Area is depicted on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map, Tioga, North Dakota (Appendix A, Figure 1), and is located within the Northern Great Plains Resource Region and Major Land Resource Area (MLRA) Central Dark Brown Glaciated Plains (53B). The Project is located within three watersheds, each identified by a 12-digit Hydrologic Unit Code (HUC): the Town of Tioga watershed (HUC 101101011402), the Tioga Municipal Airport-Paulsen Creek watershed (HUC 101101011404), and the Beauty Valley-Paulsen Creek watershed (HUC 101101011403).

3. METHODS

3.1 WETLANDS

ERM identified and evaluated potential aquatic resources in the Project Area, including wetlands and potential WOTUS, by first reviewing available desktop data. Wetlands were reviewed based on the criteria and Level I methods outlined in the *USACE 1987 Wetlands Delineation Manual* (Environmental Laboratory 1987), along with the *USACE Regional Supplement for the Great Plains* (USACE 2010). The wetland review involved the use of available resources, such as National Wetland

Inventory (NWI) mapping, National Hydrography Dataset (NHD) (Appendix A, Figure 2), aerial photography, and USGS topographic maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey (Appendix A, Figure 3).

A detailed onsite delineation was then conducted by ERM. Resources identified during the onsite delineation were investigated, characterized, and geo-located along boundaries in accordance with the three-parameter methodology outlined in the USACE 1987 Wetlands Delineation Manual and the Regional Supplement for the Great Plains.

Wetlands were classified under the Cowardin wetland classification system currently in use by various state and federal agencies as described below. Palustrine Emergent ("PEM") wetlands include areas observed with less than 30 percent cover of woody vegetation atop dominant hydrophytic vegetation species in the herbaceous vegetation stratum.

Locations of potential aquatic resources were geo-located using Global Navigation Satellite System (GNSS) receivers capable of sub-meter accuracy (Appendix A, Figure 5). Field data in representative wetland and upland vegetation communities were collected to describe hydrology, soil, and vegetation parameters, and transcribed to a USACE Wetland Determination Data Form (Appendix C).

3.2 WATERBODIES

Prior to field surveys, waterways such as creeks, streams, rivers, ditches, channels, and water bodies such as ponds, lakes, reservoirs, and impoundments within the Project Area were identified based on reviewing the NHD obtained from the USGS. In addition to NHD and NWI data, aerial imagery was reviewed for the appearance of various hydrologic signatures. During field surveys, waterway and waterbodies were evaluated for characteristics such as standing water, bed, banks, approximate width, readily measurable depths, evidence of flow, water marks, culverts and other connections to off-site waterways. ERM evaluated if each waterway could be USACE-jurisdictional or provide a connection to wetlands either within or outside the Project Area.

3.3 THREATENED AND ENDANGERED SPECIES HABITAT

The federally protected species potentially present in the Project Area were identified through the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC) results and are described below and summarized in Table 3.3-1. The USFWS IPaC Official Species List is provided as Appendix D.

In addition, the North Dakota Natural Heritage biological conservation database was queried through consultation with the North Dakota Parks and Recreation Department. Results of this query indicate no current or historical plant or animal species of concern, or other significant ecological communities are known to occur within an approximate one-mile radius of the Project (see Appendix D). As no state species of concern or significant ecological communities are in the vicinity of the Project, they are not discussed further in this report.

TABLE 3.3-1 FEDERALLY LISTED SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name	Scientific Name	Federal Status
Piping Plover	*Charadrius melodus*	Threatened
Rufa Red Knot	*Calidris canutus rufa*	Threatened
Whooping Crane	*Grus americana*	Endangered
Dakota Skipper	*Hesperia dacotae*	Threatened

ERM field surveyed the Project Area for potentially suitable habitat for federally listed species identified by the IPaC, as listed in Table 3.3-1 above. Results of the IPaC included three species proposed as threatened or endangered, which were not studied further in this report as their status is proposed. The proposed threatened species included monarch butterfly (*danaus Plexippus*) and western regal fritillary (*argynnis idalia occidentalis*), and the proposed endangered species Suckley's cuckoo bumble bee (*bombus suckleyi*).

The following species habitat descriptions were used during field surveys to determine the potential for suitable habitat to be present for federally listed threatened and endangered species. Where identified, suitable habitat was delineated and the boundaries geo-located using a GNSS receiver capable of sub-meter accuracy, and further documented with representative digital photographs.

Piping Plover

Piping plovers are small shore birds that nest on sandbars in rivers and sandy beaches bordering lakes and reservoirs. One population can be found along rivers and lakes in the Northern Great Plains. The Great Plains population of piping plovers are annual migrants; the species overwinters on the Gulf coast and migrates to summer nesting areas in the central United States and southern Canada. The species arrives in North Dakota in mid-April and remains until late August. Piping plovers utilize wide, sparsely vegetated beaches and barren river sandbars, as well as alkali lakes and wetlands in the Great Plains for nesting, foraging, sheltering, brood-rearing, and dispersal. Minimum habitat requirements consist of beaches with a shoreline length of at least 0.2 km (0.12 mi) of gently sloping, sparsely vegetated sand beach with a total beach area of at least 5 acres.

Rufa Red Knot

The rufa red knot is a medium-sized shorebird noted for its long-distance migration between summer breeding grounds in the Arctic and wintering areas at high latitudes in the Southern Hemisphere. Some red knots wintering in the Gulf migrate through interior North America during the spring migration and use inland saline lakes as stopover sites in the Northern Great Plains for rest and foraging. Available data indicates a small number of rufa red knots may occasionally use manmade freshwater habitats (e.g., impoundments); the use of freshwater wetlands as stopover habitat is unconfirmed.

Whooping Crane

Whooping cranes are large migratory birds that primarily use wetlands and cropland ponds for roosting, feeding, or both during migration. Twice yearly in the spring and fall, the cranes migrate along the Central Flyway, a migratory corridor approximately 220 miles wide and 2,400 miles in length that includes eastern Montana and portions of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and eastern Texas. During the migration, cranes make numerous stops, roosting in large shallow marshes, and feeding in harvested grain fields. The Project Area falls within the 95 percent migration corridor.

Dakota Skipper

The Dakota skipper (DASK) is a small-to-medium sized butterfly characterized by a short, sturdy body and a quick, skipping flight. The species is an obligate of high-quality prairie habitat (i.e., grasslands or discrete patches of habitat within a grassland that are predominantly native and that have not been tilled). The species does not thrive in heavily grazed or cultivated areas. Adults emerge in mid-June, feeding on the nectar of flowering native forbs; harebell, wood lily, and purple coneflower are common components of their diet. Larvae of the DASK feed on grasses, favoring little bluestem. The species overwinters at the base of grasses in the soil of the site which they inhabit. In North Dakota, the DASK typically occupies both wet-mesic and dry-mesic prairie. Grasslands dominated by exotic, invasive, or introduced plant species, or are low diversity grasslands, are unlikely habitat for DASK. High quality, high diversity, unbroken native prairie may provide appropriate habitat for DASK.

The habitat assessment follows the 2024 Dakota Skipper (*Hesperia dacotae*) North Dakota Survey Protocol (USFWS 2024). Suitable Dakota Skipper habitat was determined based on published literature and per current USFWS guidelines (Dana 1991; Rigney 2013; Royer 2004, 2008; Royer and Marrone 1992; USFWS 2014, 2016, 2024). The field habitat assessment used a subjective evaluation of the relative abundance of key indicator species and habitat quality, with the minimum characteristics being the presence of grass and forb species necessary for larval and adult stages of DASK, and an overall predominance of native grasses and forbs, even if co-dominate in areas with low shrubs or moderate cover of invasive species.

3.4 MIGRATORY BIRDS AND BALD AND GOLDEN EAGLES

Stopover habitat for migratory birds during migration and breeding seasons typically include wetlands, as well as grasslands, prairies, and forested upland. North Dakota is the northern terminus for migration of several species of migratory shore birds, and nesting habitat includes native grasslands, shorelines along rivers and lakes, and sparsely vegetated wetlands.

Bald eagles inhabit estuaries, large lakes, reservoirs, and rivers, and primarily utilize large trees to build nests, as well as cliffs and man-made structures. Golden eagle habitat typically includes grasslands, forests, woodlands, and arid deserts. Golden eagles will nest on cliffs or large trees with unobstructed views and typically avoid urban habitat and densely forested areas. ERM conducted desktop analysis to determine if suitable nesting habitat for migratory birds or bald and golden eagles is present within or within line-of-site of the Project Area. Field crews documented any incidental observations of eagles or eagles nests visible of the Project Area.

3.5 NOXIOUS WEEDS

North Dakota regulates 13 state-listed species of noxious weeds (North Dakota Department of Agriculture [NDDA] 2025). Williams County, ND regulates one (1) additional noxious species shown in Table 3.4-1 Field crews collected a Noxious Weed Point to document smaller populations of noxious weeds, 25 feet in diameter or less. For larger populations, field crews described the infestations using a Noxious Weeds Polygon. Multiple noxious weed species present within the same area were documented using a single Noxious Weeds Point or Polygon.

TABLE 3.5-1 NOXIOUS WEEDS OF NORTH DAKOTA AND WILLIAMS COUNTY

Common Name	Scientific Name
Absinth Wormwood	*Artemisia absinthium L.*
Canada Thistle	*Cirsium arvense (L.) Scop.*
Dalmatian Toadflax	*Linaria genistifolia spp. dalmatica*
Diffuse Knapweed	*Centaurea diffusa Lam.*
Houndstongue	*Cynoglossum officinale L.*
Leafy Spurge	*Euphorbia esula L.*
Musk Thistle	*Carduus nutans L.*
Palmer amaranth	*Amaranthus palmeri*
Purple Loosestrife (and all cultivars)	*Lythrum salicaria L., Lythrum virgatum L.*
Russian Knapweed	*Centaurea repens L.*
Saltcedar	*Tamarisk spp.*
Spotted Knapweed	*Centaurea maculosa Lam.*
Yellow Toadflax	*Linaria vulgaris*
Narrowleaf Hawksbeard[1]	*Crepis tectorum*

[1]County listed Noxious Species

3.6 TOPSOIL SURVEYS

The purpose of the topsoil field survey was to delineate approximate topsoil depths in support of soil salvage and stockpiling (or windrowing) operations associated with Project construction activities. The North Dakota Administrative Code (43-02-03) requires that "when utilizing excavation for pipeline installation, repair, or abandonment, topsoil must be stripped, segregated from the subsoils, and stockpiled for use in reclamation."

Prior to mobilizing for the field, ERM reviewed available orthoimagery and soil map information in the NRCS Web Soil Survey to develop a preliminary understanding of soil types present within the Project Area and associated topsoil depths. Depending on the land use (e.g., agriculture, native prairie) and the variety of soil types expected to be encountered, ERM established survey locations

at which topsoil depths were recorded. Where repeated land use (e.g., agriculture) or soil types (e.g., Williams soil series) were recorded, topsoil depth was extrapolated, as needed.

Field crews undertook topsoil field surveys that demarcated topsoil depths along the length of the Project. The North Dakota Administrative Code (43-02-03) defines topsoil as the "suitable plant growth material on the surface; however, in no event shall this be deemed to be more than the top twelve inches (30.48 centimeters) of soil or deeper than the depth of cultivation, whichever is greater." Supported by the U.S. Department of Agriculture (USDA) topsoil definition of the A horizon, or the uppermost mineral horizon of a soil profile that has accumulated organic material from above, giving it a characteristic dark brown or black color (USDA 2018), the boundary between topsoil and subsoil was determined through field observations (e.g., change in soil color, texture, etc.).

Topsoil survey locations were focused on the pipeline centerline, with deviations made as necessary throughout the Project Area to capture soil types present and safeguard against minor adjustments in alignment as the Project progresses. To provide topsoil data at a scale sufficient to support proper topsoil excavation during construction, ERM selected topsoil survey locations within each section (1 square mile or 640 acres) intersecting the Project Area.

All topsoil survey locations displayed in Appendix A, Figure 4 were navigated to using a handheld GPS unit. At each topsoil survey location, ERM staff conducted the following tasks:

- Recorded new spatial information, if the preliminary topsoil survey location was adjusted as needed in the field.
- Recorded land use (e.g., agriculture, native prairie, other with a description).
- Excavated soil materials via hand auger or shovel to a maximum depth of 12 inches.
- Recorded topsoil depth, per the North Dakota Administrative Code, to the closest whole number (e.g., 0-12 inches).
    - To the depth of cultivation, or
    - To a maximum depth of 12 inches.
- Recorded the topsoil depth boundary as either "actual" or "threshold", with "threshold" indicating the boundary was determined by the North Dakota Administrative Code definition where actual topsoil depths may be greater.
- Took a photo of the auger core or shovel excavation with a measuring tape for reference.

4. RESULTS

4.1 WETLANDS AND WATERBODIES

Current site conditions include agricultural cultivation throughout most of the Project Area with a rotation between *Triticum spp.* and *Pisum sativum*. The northern section of the Project Area is maintained in perennial grasses of the mixed prairie ecotype along with several shrub species. However, signs of cattle grazing and tillage were observed dating back 30 years upon review of aerial imagery across the Project Area. It has been determined that historical conditions are representative of present-day conditions.

The Antecedent Precipitation was evaluated using the Antecedent Precipitation Tool 2.0 (APT) developed by the USACE and the USACE Research and Development Center. As shown in Appendix B, the APT determined that conditions were "wetter than normal" on May 25, 2025. Note that the region is still considered to be in a moderate drought as of April 2025. The three months prior to the delineation (February, March, April) were "drier than normal" and in May "normal" conditions were documented with a large spike in precipitation in early to mid-May including a single rain event of more than 4 inches.

Baseline topography of the Project Area was determined by reviewing public resource data such as the USGS topographic maps and Light Detection and Ranging (LiDAR) contour data (USGS 2019). It was assumed that drainage onsite follows the contours towards low-lying drainage features including culverts and within vegetated areas throughout the agricultural fields. Site topography consists of mostly level, undulating topography found on a glacial till plain. Elevation on site is approximately 2,200 feet above mean sea level.

Upland (non-water) points were recorded at NHD or NWI-mapped features that did not meet the required criteria of wetlands or waterbodies when assessed in the field (i.e., upland habitat). Non-water points were also used to document areas that were investigated as potentially meeting wetland criteria based on signatures observed during the desktop assessment but were ultimately determined to be non-wetland areas during the field investigation. A wetland determination form, photos, and GPS point were collected at these locations.

Based on the results of the onsite delineation conducted on May 26, 2025 through May 30, 2025 and on June 6, 2025, ERM identified 8 wetlands resulting in 3.34 acres in total. Of the total wetland acreage, 1.78 acres were further classified as PEM temporarily flooded (PEM1A), and 1.56 acres were classified as PEM seasonally flooded (PEM1C).

Three ephemeral waterbodies were observed in the Project Area and were all located in the northern section at the County Line Gas Plant. The three delineated waterbodies were manmade drainage ditches and flow from west to east. The ordinary high-water mark was no greater than one foot and consisted of sand, gravel and rock substrates.

Findings are summarized in Table 4.1-1 and depicted in Appendix A, Figure 5. A photographic log of the wetlands and waterbodies within the Project Area are provided in Appendix C. Vegetation, hydrology, and soil data recorded by ERM for each wetland are provided on USACE wetland determination data forms in Appendix C.

TABLE 4.1-1 DELINEATED WETLANDS AND WATERBODIES

Unique ID	Cowardin Classification	Latitude	Longitude	Area/Length	Connectivity
wwia001	PEM1A	48.485578	-102.900638	0.03 acres	Isolated
wwia002	PEM1A	48.482704	-102.900139	0.33 acres	Isolated
wwia003	PEM1A	48.480621	-102.899482	0.25 acres	Isolated

Unique ID	Cowardin Classification	Latitude	Longitude	Area/Length	Connectivity
wwia004	PEM1A	48.478825	-102.896819	0.47 acres	Isolated
wwia005	PEM1A	48.478656	-102.895645	0.26 acres	Isolated
wwia006	PEM1A	48.476976	-102.892311	0.44 acres	Isolated
wwia007	PEM1C	48.469157	-102.895055	0.36 acres	Isolated
wwia008	PEM1C	48.467099	-102.895951	1.20 acres	Isolated
swia001	Ephemeral	48.488652	-102900768	975 feet	Isolated
swia002	Ephemeral	48.488326	-102.900843	250 feet	Isolated
swia003	Ephemeral	48.489033	-102.898086	99 feet	Isolated

4.2 THREATENED AND ENDANGERED SPECIES HABITAT

ERM analyzed the results of the wetland and waterbody delineation, landcover data and imagery review, grasslands analysis, and field survey to determine the potential for protected species habitat to be present in the Project Area. No USFWS-designated critical habitat is in the Project Area. A summary of the analysis for protected species habitat within the Project Area is provided in Table 4.2-1 below.

TABLE 4.2-1. PROTECTED SPECIES HABITAT POTENTIALLY PRESENT WITHIN THE PROJECT AREA

Common Name	Federal Status	Habitat Requirements	Potential Habitat in Project Area
Piping Plover (*Charadrius melodus*)	Threatened	Beaches with a shoreline length of at least 0.2 km (0.12 mi) of gently sloping, sparsely vegetated sand beach with a total beach area of at least 5 acres were not present within the Project Area.	Not Likely
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	Saline lakes are not present within the Project Area. Freshwater wetlands are present but are not confirmed as migratory stopover habitat.	Not Likely
Whooping Crane (*Grus americana*)	Endangered	Wetlands and cropland ponds within and adjacent to the Project Area could provide migratory stopover habitat for roosting, feeding, or both during migration.	Likely
Dakota Skipper (*Hesperia dacotae*)	Threatened	Native prairie, including unbroken grassland, is present in the Project Area.	Likely

Whooping Crane

The Project Area primarily crosses agricultural land dominated by cultivated wheat fields, along with limited areas of native prairie. The Project Area is located within the 95 percent core migration corridor of the Central Flyway, used by the whooping crane during its spring and fall migrations. Habitat within and adjacent to the Project Area provides suitable stopover conditions, including wheat fields that offer foraging opportunities and low-lying or seasonally inundated areas that may provide temporary roosting habitat. While no wetlands were identified as primary roosting habitat during the field survey, the combination of open cropland and pasture in proximity to small wetlands may support short-term use by migrating whooping cranes, particularly during adverse weather or high migration activity. Therefore, suitable migratory stopover habitat for whooping cranes is present within the Project Area.

Dakota Skipper

All grassland areas within the Project Area were assessed for potential DASK habitat. Type B habitats were the only suitable habitat types observed in the Project Area during the field survey. The majority of the Project Area was classified as non-suitable DASK habitat.

The results of the field survey identified seven (7) DASK habitat patches totaling 2.7 acres within the Project Area. Those habitat patches were delineated, and the results are presented in Table 4.2-2 and Appendix A, Figure 5.

TABLE 4.2-2. DAKOTA SKIPPER HABITAT SURVEY RESULTS

Unique ID	Habitat Type	Vegetation Species Observed	Latitude	Longitude	Acres
hwia001	Type B	*Schizachyrium scoparium, Echinacea purpurea, Geum triflorum*	48.485063	-102.899975	0.55
hwia002	Type B	*Schizachyrium scoparium, Echinacea purpurea*	48.484454	-102.900702	0.10
hwia003	Type B	*Schizachyrium scoparium, Echinacea purpurea*	48.482984	-102.900607	0.22
hwia004	Type B	*Schizachyrium scoparium, Echinacea purpurea, Geum triflorum*	48.482115	-102.899892	0.30
hwia005	Type B	*Schizachyrium scoparium, Echinacea purpurea*	48.472071	-102.894146	0.90
hwia006	Type B	*Schizachyrium scoparium, Echinacea purpurea, Vicia sp.*	48.470957	-102.894551	0.24
hwia007	Type B	*Schizachyrium scoparium, Echinacea purpurea, Vicia sp.*	48.468562	-102.895636	0.39

4.2.2 MIGRATORY BIRDS AND BALD AND GOLDEN EAGLES

Field surveys confirmed the results of the desktop analysis which found that suitable stopover habitat, including wetlands and native grasslands, for migratory birds is present within the Project Area.

Nesting habitat for bald and golden eagles was not identified within the Project Area. In addition, the North Dakota Game and Fish Department database was queried through consultation with the agency, confirming that no known eagle nests are within 0.5-mile of the Project (see Appendix D). No incidental observations of eagles or eagle nests occurred during field surveys.

4.3 NOXIOUS WEEDS

Of the 14 noxious weeds listed by NDDA and Williams County, three (3) species were identified during the survey. Canada thistle (*Cirsium arvense (L.) Scop.*) was identified at eight (8) locations totaling 7.13 acres. Leafy spurge (*Euphorbia esula L.)* was identified at six (6) locations totaling 0.58 acres. Absinth wormwood (*Artemisia absinthium L.)* was identified at two (2) locations totaling 1.29 acres. The results of the noxious weeds survey are detailed in Table 4.3-1 below and in Appendix A, Figure 5.

TABLE 4.3-1 NOXIOUS WEEDS RESULTS

Unique ID	Species Name	Latitude	Longitude	Acres
xwia001	*Cirsium arvense (L.) Scop.*	48.48887409	-102.8978826	4.42
xwia002	*Euphorbia esula L.*	48.47349301	-102.8931743	0.26
xwia003	*Euphorbia esula L.*	48.47144803	-102.8936196	0.11
xwia004	*Euphorbia esula L.*	48.46890595	-102.89497	0.09
xwia005	*Euphorbia esula L.*	48.46833385	-102.8949153	0.09
xwia006	*Euphorbia esula L.*	48.4678539	-102.8950184	0.03
xwia007	*Euphorbia esula L.*	48.46752434	-102.8948643	0.01
xwia008	*Cirsium arvense (L.) Scop.*	48.46318682	-102.8968442	0.03
xwia009	*Cirsium arvense (L.) Scop.*	48.45666563	-102.8987339	0.40
xwia010	*Cirsium arvense (L.) Scop.*	48.41790306	-102.8909957	1.36
xwia011	*Cirsium arvense (L.) Scop.*	48.42685155	-102.89111	0.01
xwia012	*Cirsium arvense (L.) Scop.*	48.4268959	-102.8934068	0.02
xwia013	*Cirsium arvense (L.) Scop.*	48.41362732	-102.8941803	0.11
xwia014	*Cirsium arvense (L.) Scop.*	48.40572131	-102.9048448	0.19
xwia015	*Artemisia absinthium L.*	48.40702614	-102.9033081	0.01
xwia016	*Artemisia absinthium L.*	48.40784913	-102.9020179	1.29

4.4 TOPSOIL SURVEYS

A total of 15 soil series are mapped in the Project Area, occurring as 20 soil series complexes (Table 4.4-1; USDA-NRCS 2024). Of the 20 soil series complexes present, ERM surveyed 13 (65%). In total, 35 topsoil survey locations were established throughout the Project Area for the Tioga Extension Project. The spatial location data for each of the topsoil survey locations is provided in Appendix A, Figure 4. Where a site series complex was not sampled (e.g., due to its relatively small size, infrequent occurrence, or location away from the Tioga Extension Project centerline), topsoil depth was extrapolated using field observations (e.g., typical depth of tillage) and NRCS Web Soil Survey data. At each topsoil survey location, ERM collected the following information (as detailed in Section 3.6):

- Location,
- Land use,
- Topsoil depth and boundary type, and
- Photo evidence.

Of the 35 topsoil survey locations, 20 (57%) were located in areas of agricultural land use, and 14 (40%) were located in areas of native prairie; an additional one (1) was located on previously disturbed land (e.g., adjacent development areas). In total, 29 (83%) of all topsoil survey locations recorded topsoil depths of 12 inches or greater, Table 4.4-2). All data collected has been reviewed by a professional soil scientist with knowledge of soil physical and chemical properties and classification.

TABLE 4.4-1. SUMMARY OF SOIL SERIES COMPLEXES PRESENT AND SURVEYED IN THE PSC CORRIDOR

Map Unit Code	Map Unit Name	Acres	Survey Locations
C132B	Williams-Zahl loams, 3 to 6 percent slopes	19.58	3
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes	2.99	1
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes	35.31	4
C135D	Zahl-Williams loams, 9 to 15 percent slopes	12.38	1
C148C	Williams-Zahl-Parnell complex, 0 to 9 percent slopes	35.93	6
C156F	Zahl-Max-Bowbells loams, 6 to 35 percent slopes	8.34	1
C210A	Williams-Bowbells loams, 0 to 3 percent slopes	0.02	0
C210B	Williams-Bowbells loams, 3 to 6 percent slopes	78.43	9

Map Unit Code	Map Unit Name	Acres	Survey Locations
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes	4.35	3
C2A	Tonka silt loam, 0 to 1 percent slopes	1.74	1
C3A	Parnell silty clay loam, 0 to 1 percent slopes	4.11	2
C419A	Wildrose silty clay, 0 to 2 percent slopes	2.43	0
C451A	Arnegard loam, 0 to 2 percent slopes	15.16	2
C818B	Lehr-Williams loams, 0 to 6 percent slopes	1.17	0
C818C	Lehr-Williams loams, 6 to 9 percent slopes	0.74	0
C874B	Wabek-Appam complex, 2 to 6 percent slopes	1.20	0
C874C	Wabek-Appam complex, 6 to 9 percent slopes	2.50	1
C877B	Wabek-Lehr complex, 2 to 6 percent slopes	2.08	0
C905C	Amor-Williams-Zahl loams, 3 to 9 percent slopes	2.11	0
C906E	Amor-Zahl-Werner loams, 9 to 25 percent slopes	2.06	1
	TOTALS	**232.63**	**35**

FIGURE 4.4-2. TOPSOIL DEPTH RESULTS IN THE PROJECT AREA

Unique ID	Land Use	Topsoil Depth (inches)	Actual/Threshold[1]	Map Unit Code	Latitude	Longitude
S-1	Oil/gas infrastructure	12	Threshold	C132B	48.48885715	-102.8980679
S-2	Native Prairie	12	Threshold	C2A	48.488184	-102.9003853
S-3	Native Prairie	12	Threshold	C148C	48.48652479	-102.9003853
S-4	Native Prairie	12	Threshold	C148C	48.48422076	-102.9003424
S-5	Native Prairie	10	Actual	C156F	48.48306331	-102.9003737
S-6	Native Prairie	12	Threshold	C272A	48.48130976	-102.9002852
S-7	Agricultural	5	Actual	C148C	48.47942274	-102.8982967

Unique ID	Land Use	Topsoil Depth (inches)	Actual/Threshold[1]	Map Unit Code	Latitude	Longitude
S-8	Native Prairie	11	Actual	C135D	48.47859774	-102.8961224
S-9	Agricultural	12	Threshold	C148C	48.47629335	-102.8905148
S-10	Native Prairie	8	Actual	C132B	48.4731062	-102.8931067
S-11	Native Prairie	12	Threshold	C148C	48.47205414	-102.8935474
S-12	Agricultural	12	Threshold	C3A	48.46891482	-102.8948349
S-13	Agricultural	12	Threshold	C3A	48.46652463	-102.8958792
S-14	Native Prairie	12	Threshold	C135C	48.46506323	-102.8961108
S-15	Native Prairie	12	Threshold	C132B	48.46325551	-102.8969773
S-16	Agricultural	12	Threshold	C135C	48.45880315	-102.8981537
S-17	Agricultural	12	Threshold	C272A	48.45612787	-102.8989691
S-18	Native Prairie	12	Threshold	C272A	48.45557862	-102.8993642
S-19	Native Prairie	12	Threshold	C148C	48.4544012	-102.8994698
S-20	Native Prairie	12	Threshold	C210B	48.45262703	-102.8999991
S-21	Agricultural	12	Threshold	C210B	48.44798667	-102.901232
S-22	Agricultural	12	Threshold	C210B	48.4432618	-102.9024166
S-23	Agricultural	8	Actual	C210B	48.43847888	-102.9038614
S-24	Agricultural	12	Threshold	C906E	48.4355646	-102.9052232
S-25	Agricultural	12	Threshold	C451A	48.43453957	-102.9056666
S-26	Agricultural	12	Threshold	C210B	48.43257554	-102.9065401
S-27	Agricultural	12	Threshold	C451A	48.42796248	-102.9054672

Unique ID	Land Use	Topsoil Depth (inches)	Actual/Threshold[1]	Map Unit Code	Latitude	Longitude
S-28	Agricultural	12	Threshold	C874C	48.42761542	-102.8971117
S-29	Agricultural	12	Threshold	C210B	48.42519539	-102.890833
S-30	Agricultural	12	Threshold	C210B	48.42113611	-102.8909102
S-31	Agricultural	12	Threshold	C135C	48.41545863	-102.8912679
S-32	Agricultural	12	Threshold	C135C	48.41358815	-102.8943721
S-33	Agricultural	12	Threshold	C210B	48.40968555	-102.8994075
S-34	Native Prairie	8	Actual	C210B	48.4064569	-102.9040852
S-35	Agricultural	12	Threshold	C132C	48.40537193	-102.9099557

[1] Actual = the boundary was determined through field observations to be less than 12 inches; threshold = the boundary was determined by the North Dakota Administrative Code definition (12 inches).

5. CONCLUSION

ERM conducted natural resource field surveys from May 26,2025 through May 30, 2025 and on June 6, 2025, to support ONEOK's Tioga Extension Project and facilitate regulatory compliance under federal, state, and local environmental requirements. Within the approximately 652-acre Project Area, ERM delineated eight (8) wetlands totaling 3.34 acres and identified three (3) ephemeral waterbodies. All aquatic features were isolated and not visibly connected to downstream waters at the time of the survey.

While critical habitat is not present, potential habitat for the Dakota skipper and potential stopover habitat for whooping crane was identified. Seven discrete areas totaling 2.7 acres were classified as potential Dakota skipper habitat.

ERM also documented the presence of three noxious weed species across multiple locations. Topsoil survey results provide baseline data for construction-phase soil management, with most locations exhibiting 12 inches of topsoil or meeting the defined threshold for reclamation planning.

6. PROJECT CONTRIBUTORS

JESSICA LOWEY, MSC, PAG – ECOLOGIST & SOIL SCIENTIST

Jessica Lowey is a practicing ecologist and soil scientist with 15 years of experience planning, executing, and leading field programs and technical reports for the characterization of biophysical features (e.g., landforms, soils, and ecosystems) across North America. In her primary jurisdiction (Canada), she is a Professional Agrologist practicing in environmental impact assessment and mitigation planning; soil and land conservation, reclamation planning and management; and vegetation identification, assessment and management. At ERM, Jessica is responsible for the execution and delivery of technical aspects relating to these disciplines, including the review and sign-off of data and reports.

CHAD MADISON – ECOLOGIST

Chad Madison is a qualified environmental consultant with over 12 years of experience conducting natural resource surveys, including wetland delineations, habitat assessments, and ecological permitting for large-scale infrastructure projects. He has led multidisciplinary field teams and authored technical reports in compliance with federal, state, and local environmental regulations, including Section 404 of the Clean Water Act and U.S. Army Corps of Engineers standards. Chad holds a B.S. in Environmental Resource Management and has completed formal wetland delineation training. His project experience in North Dakota and similar regulatory environments ensures scientifically accurate execution of field surveys and reporting.

RUSTIN NORDSVEN – T&E SPECIALIST (USFWS DAKOTA SKIPPER PERMIT HOLDER)

Rustin Nordsven is a qualified environmental consultant and the owner of GHA Consulting, LLC, with over five years of experience in biological fieldwork specializing in native prairie assessments and threatened and endangered species, including the federally threatened Dakota skipper (*Hesperia dacotae*). He holds a U.S. Fish and Wildlife Service Native Threatened Species Recovery Permit for Dakota skipper and has led multiple occupancy and habitat suitability surveys throughout western

North Dakota. Rustin has conducted fieldwork for pipeline, habitat banking, and mitigation projects, providing ESA compliance support through detailed assessments of native prairie and species presence.

ALEX GREEN – ECOLOGIST

Alex Green is an environmental Consultant with 6 years of experience completing environmental surveys in the oil and gas sector. Surveys include threatened and endangered species surveys, habitat assessments, habitat restoration, plant surveys, permitting, and wetland delineations. Alex is designated as a Wetland Professional In-Training through the Minnesota Board of Water and Soil Resources in accordance with the U.S. Army Corps of Engineers. He has completed over twenty Wetland delineations to date including in the state of North Dakota. Alex's prior experience in the Great Plains region ensures accurate data collection of North Dakota's natural resources and report writing in compliance with federal, state, and local agencies.

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APPENDIX A FIGURES

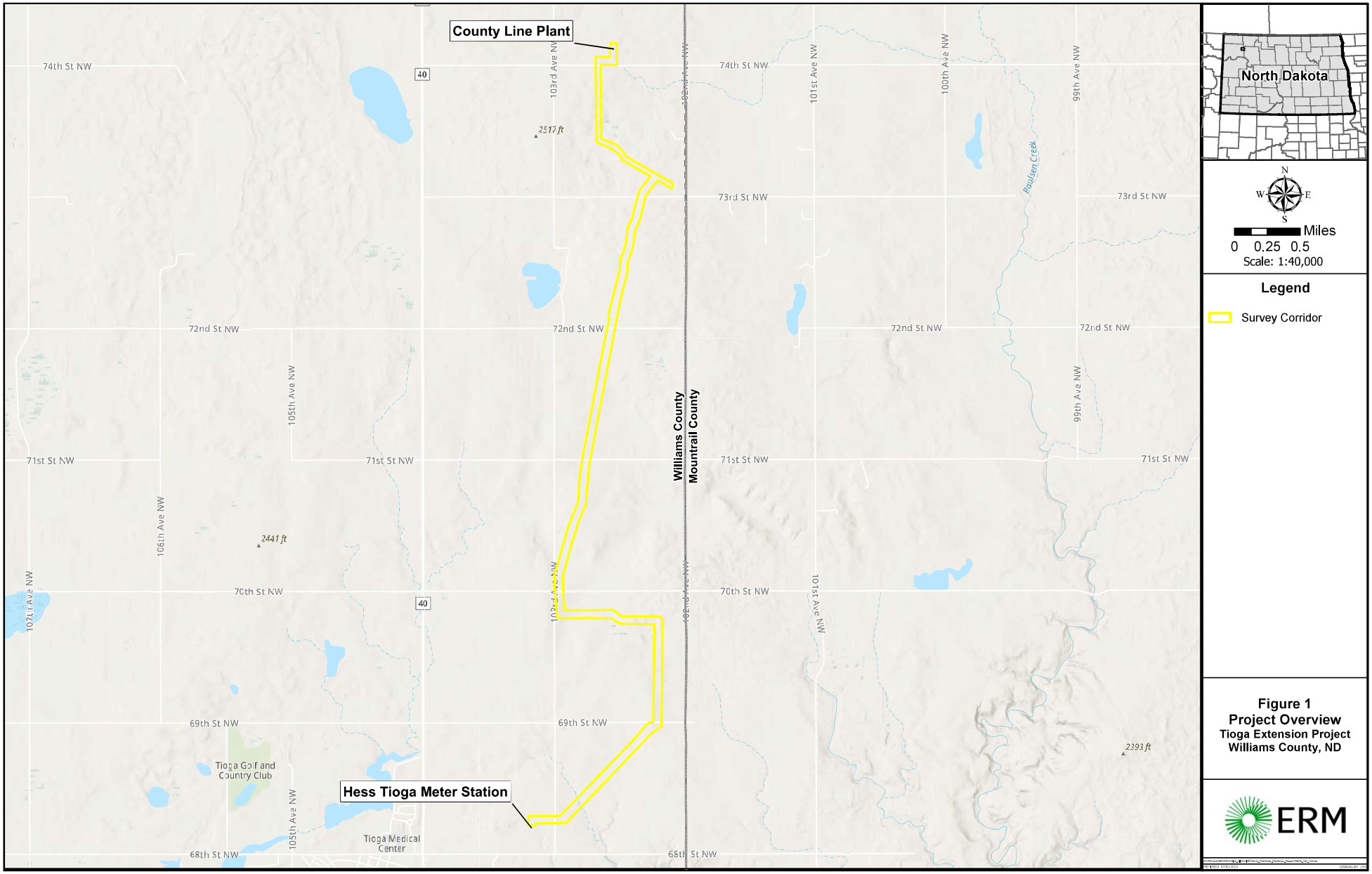


Figure 1
Project Overview
Tioga Extension Project
Williams County, ND

ERM

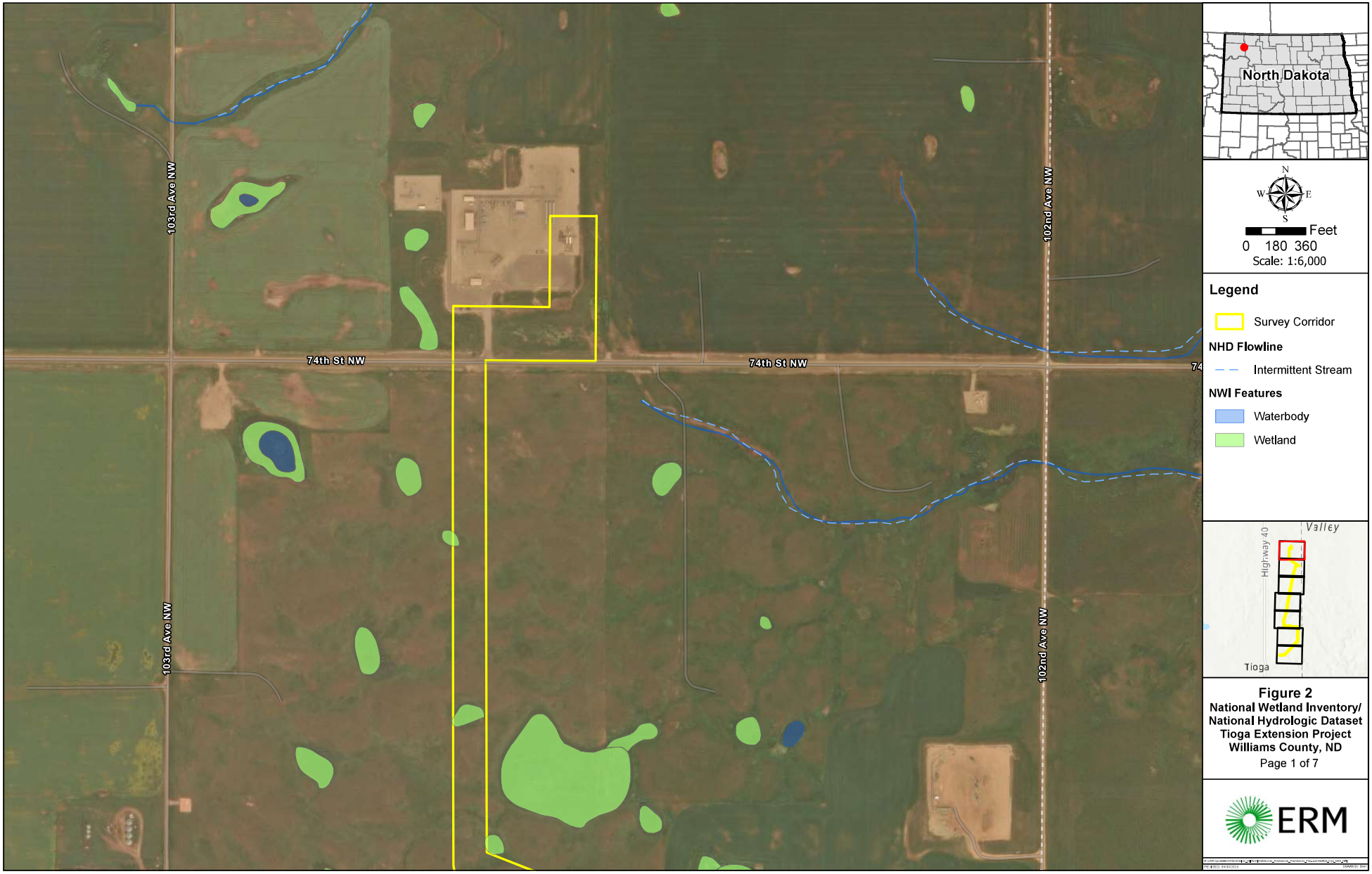
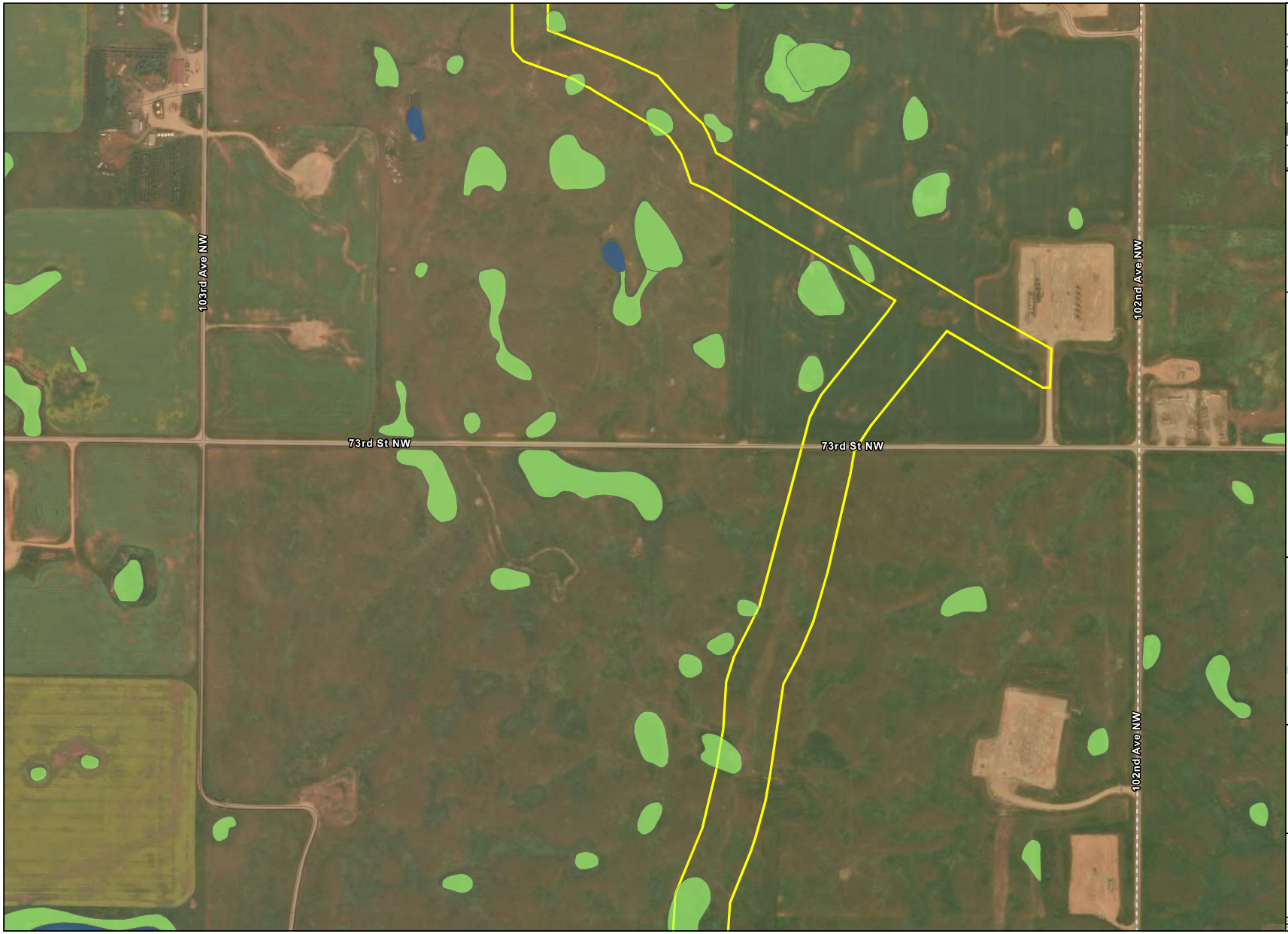
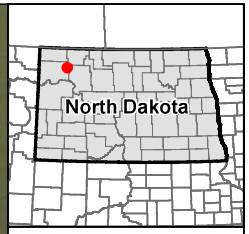


Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 1 of 7

ERM





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Legend

- Survey Corridor

NWI Features

- Waterbody
- Wetland

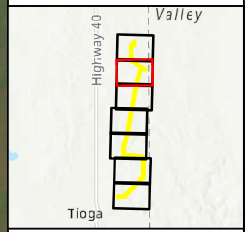
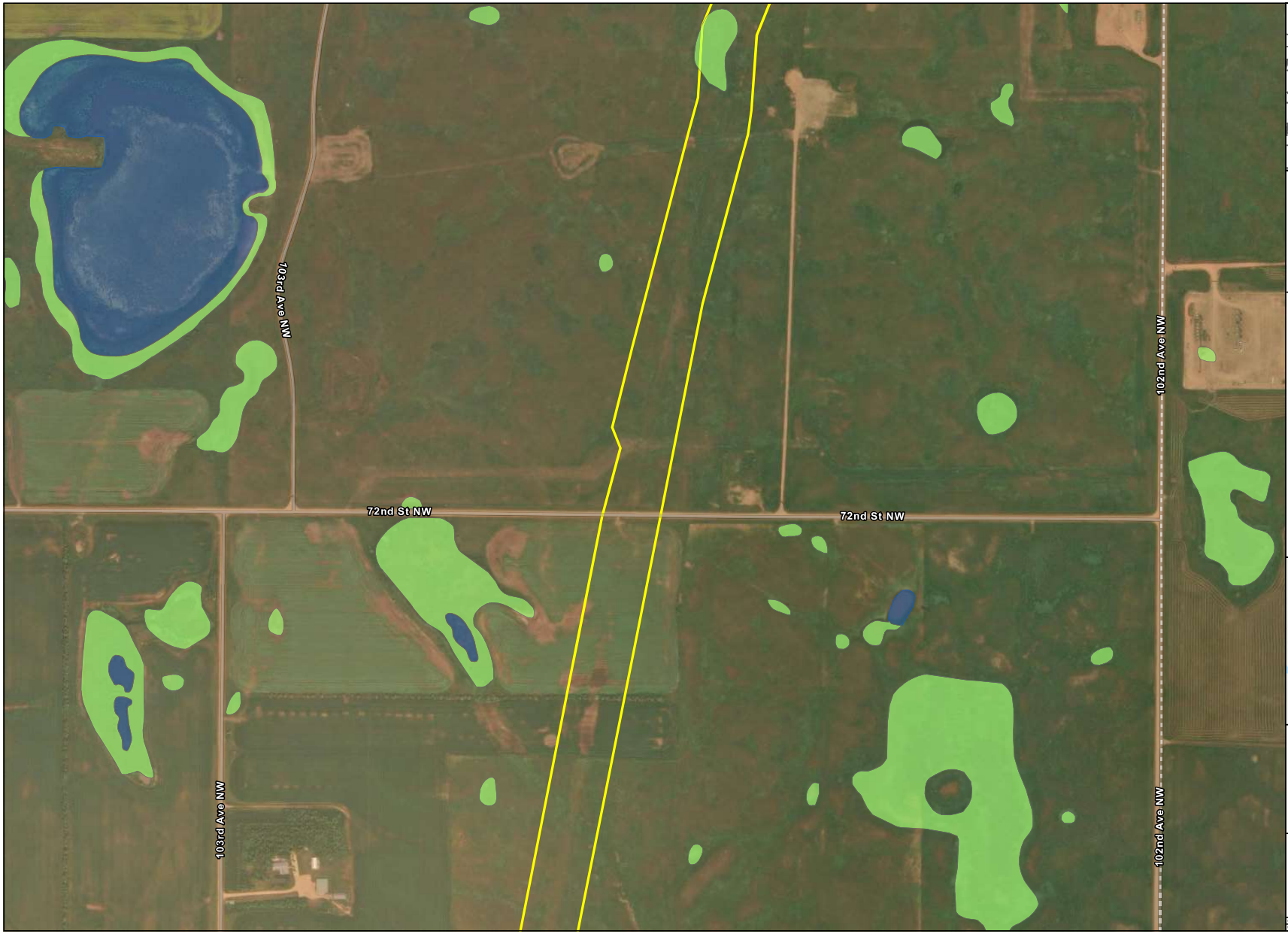
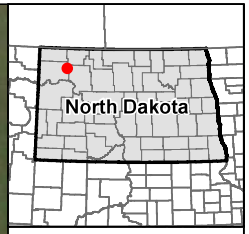


Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 2 of 7

ERM





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Legend

- Survey Corridor

NWI Features

- Waterbody
- Wetland

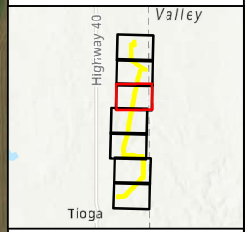
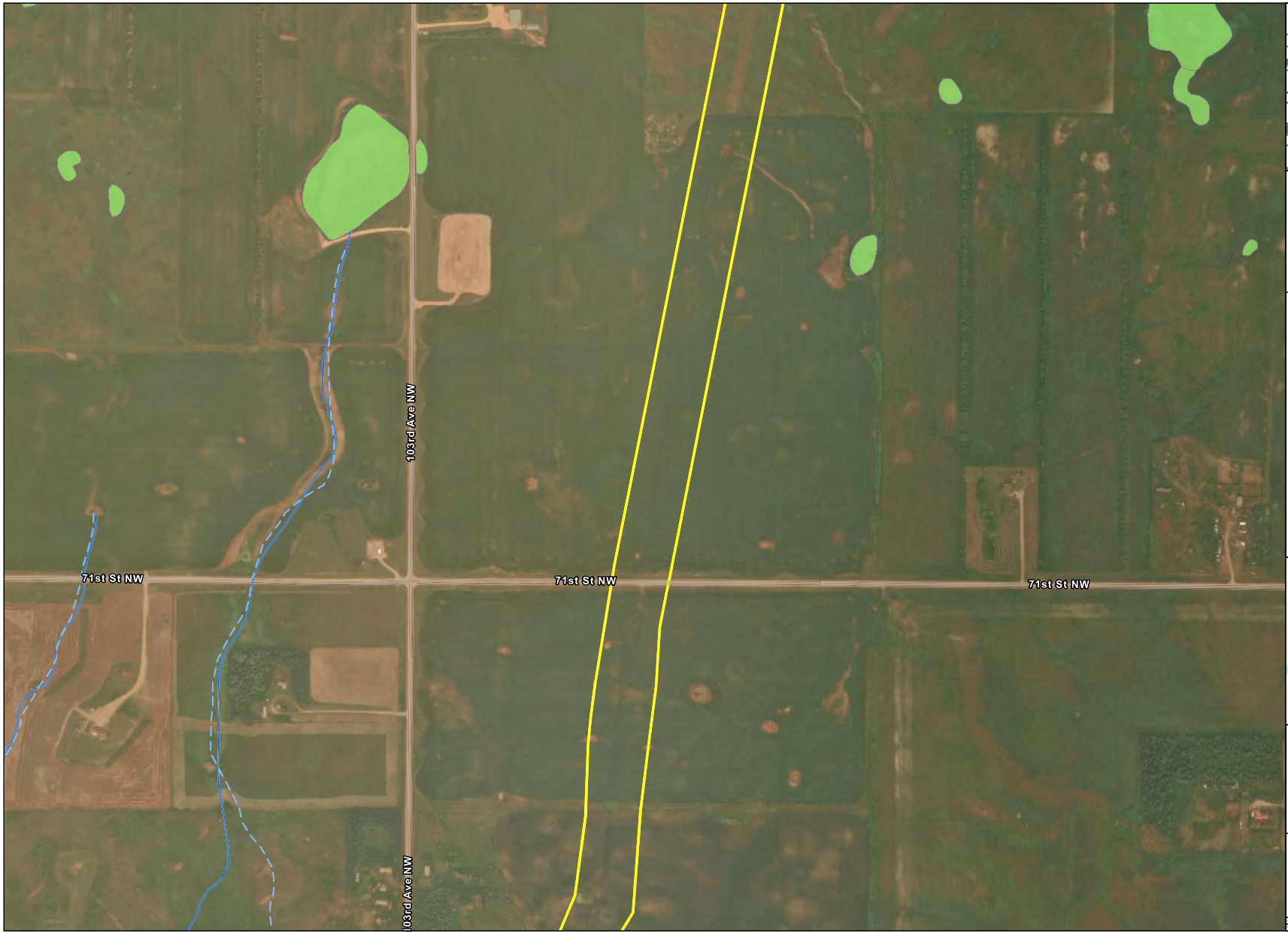
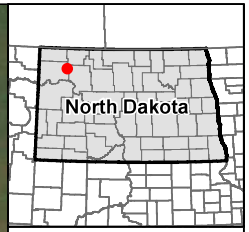


Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 3 of 7

ERM





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Legend

- Survey Corridor

NHD Flowline

- Intermittent Stream

NWI Features

- Waterbody
- Wetland

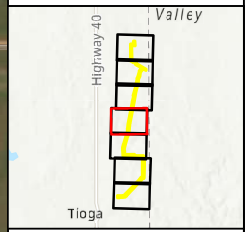

Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 4 of 7

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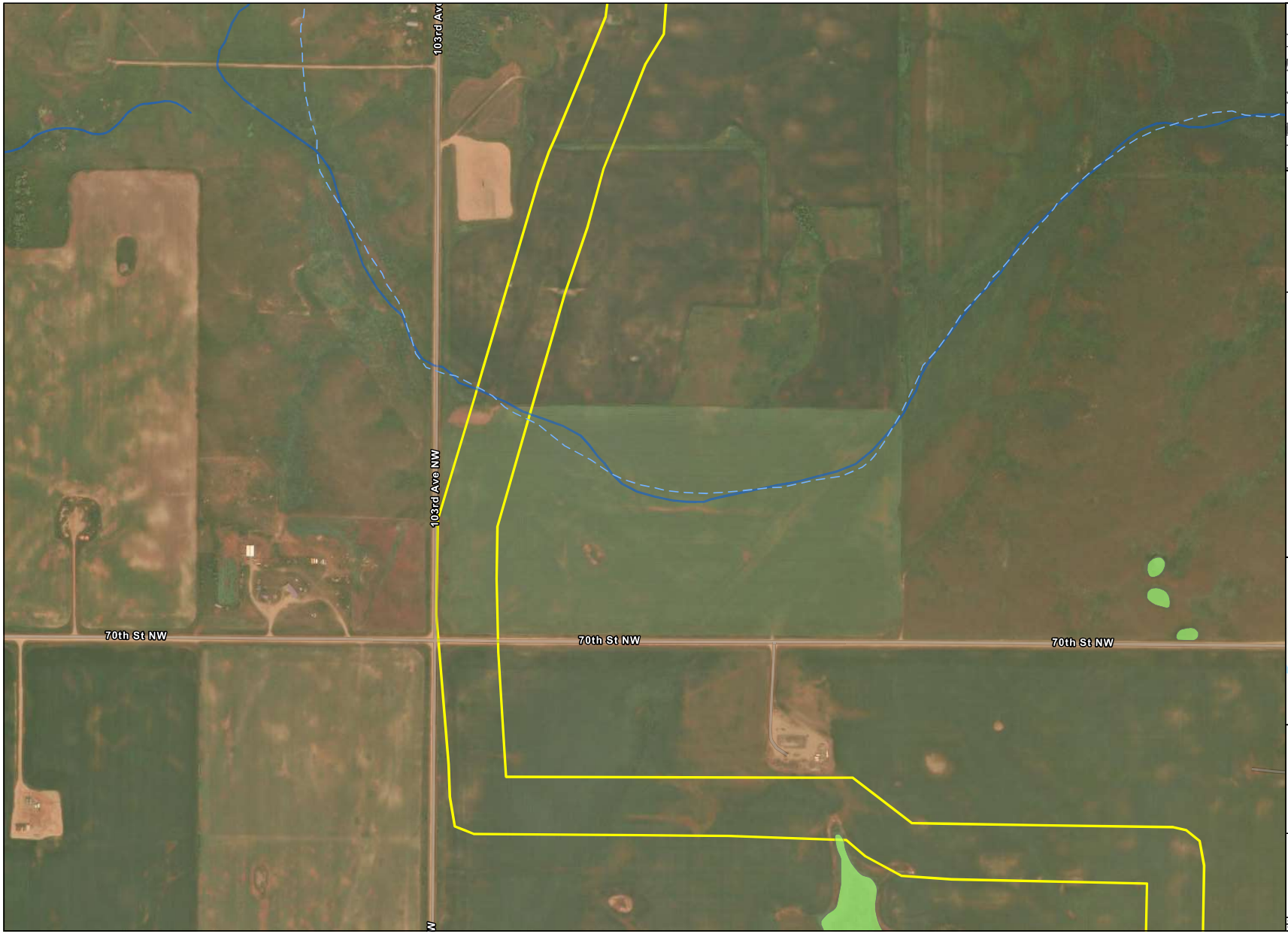

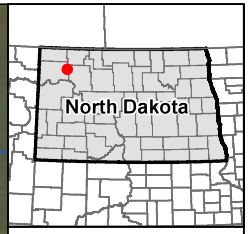

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Survey Corridor

NHD Flowline

Intermittent Stream

NWI Features

Waterbody

Wetland

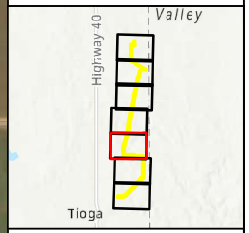

Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 5 of 7

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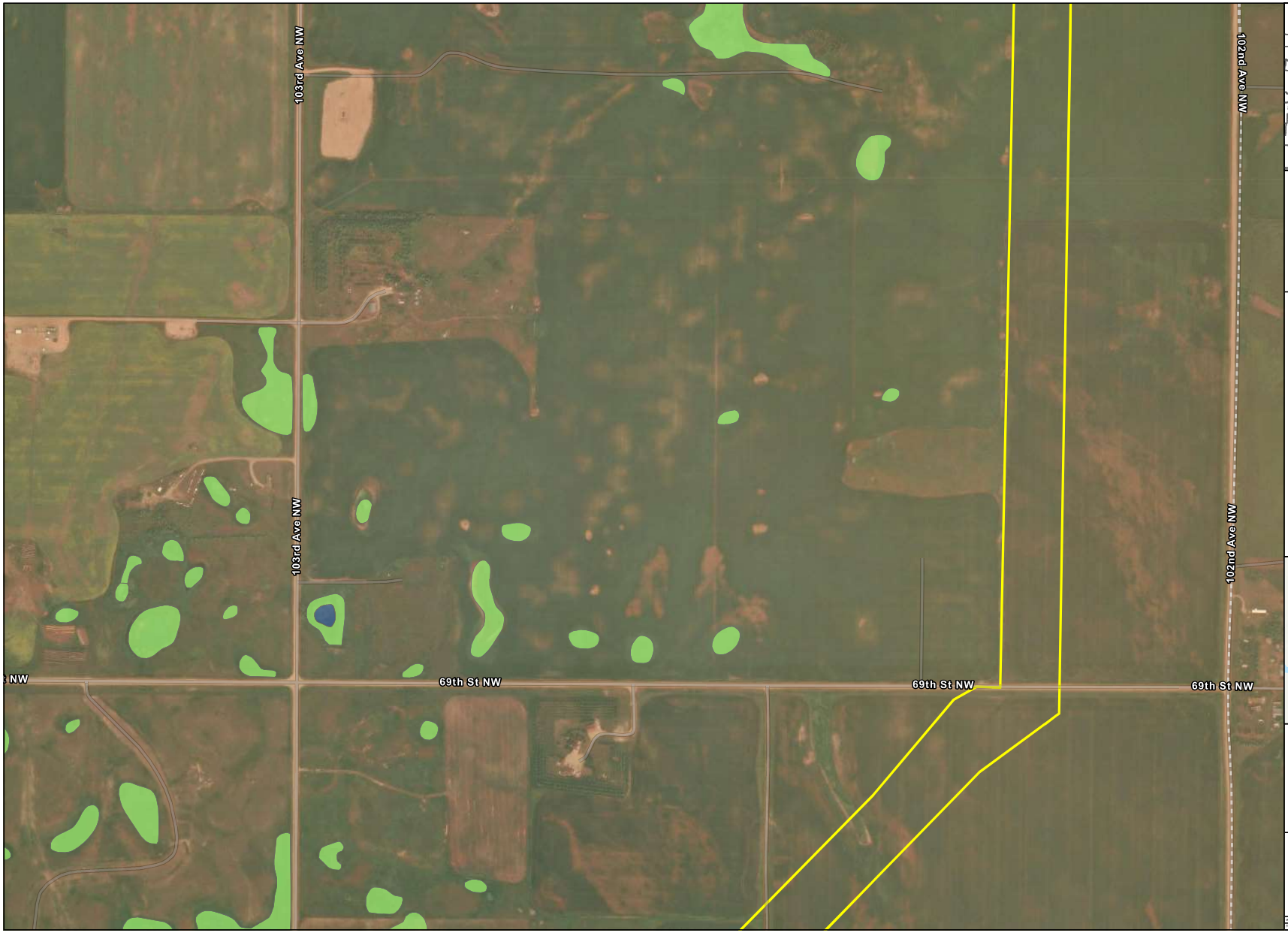
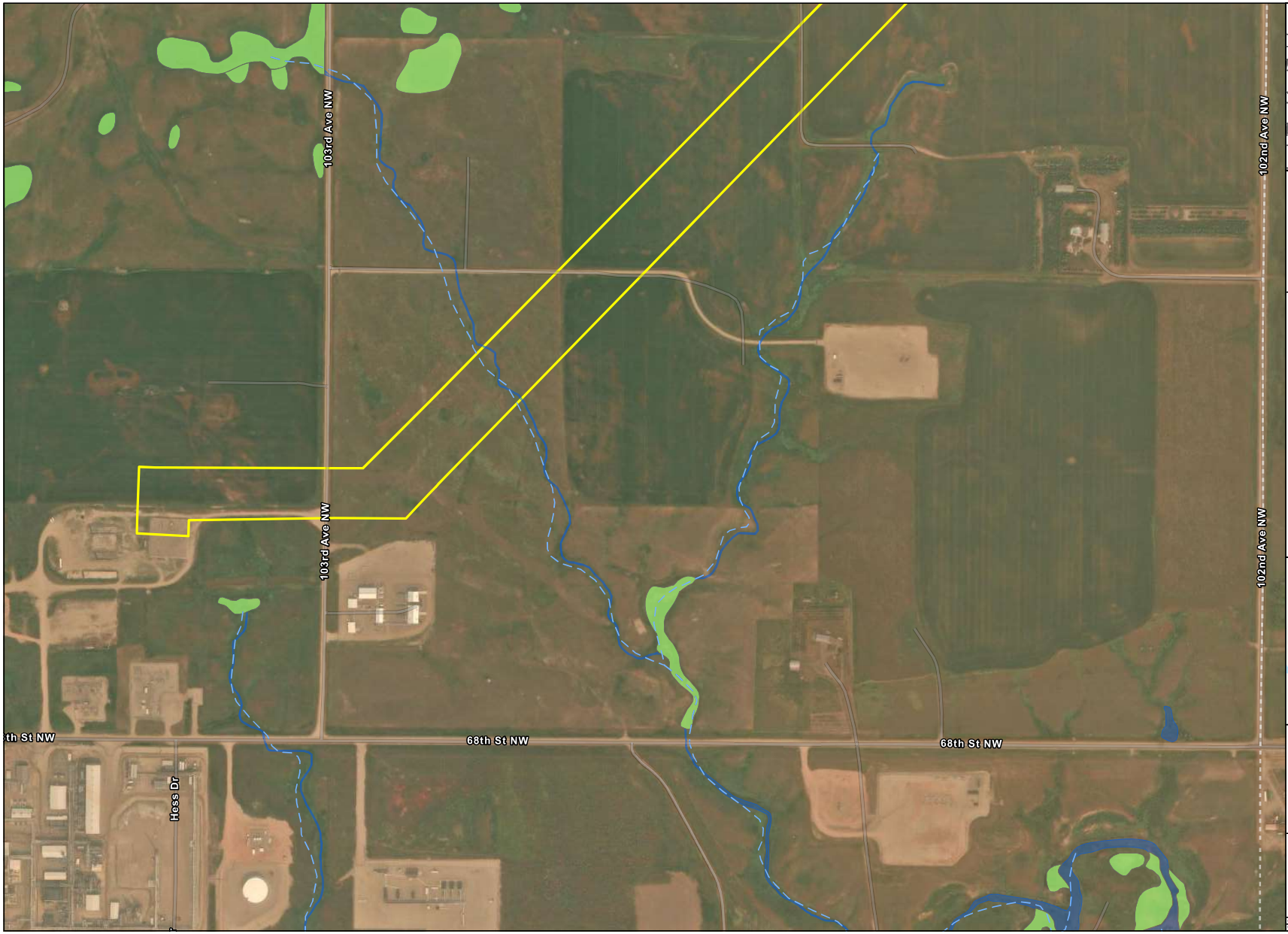
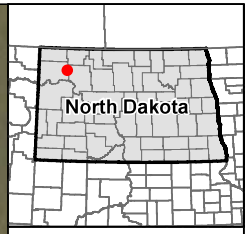


Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
Page 6 of 7





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- Survey Corridor

NHD Flowline

- Intermittent Stream

NWI Features

- Waterbody
- Wetland

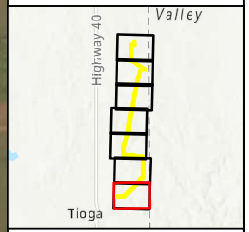

Figure 2
National Wetland Inventory/ National Hydrologic Dataset
Tioga Extension Project
Williams County, ND
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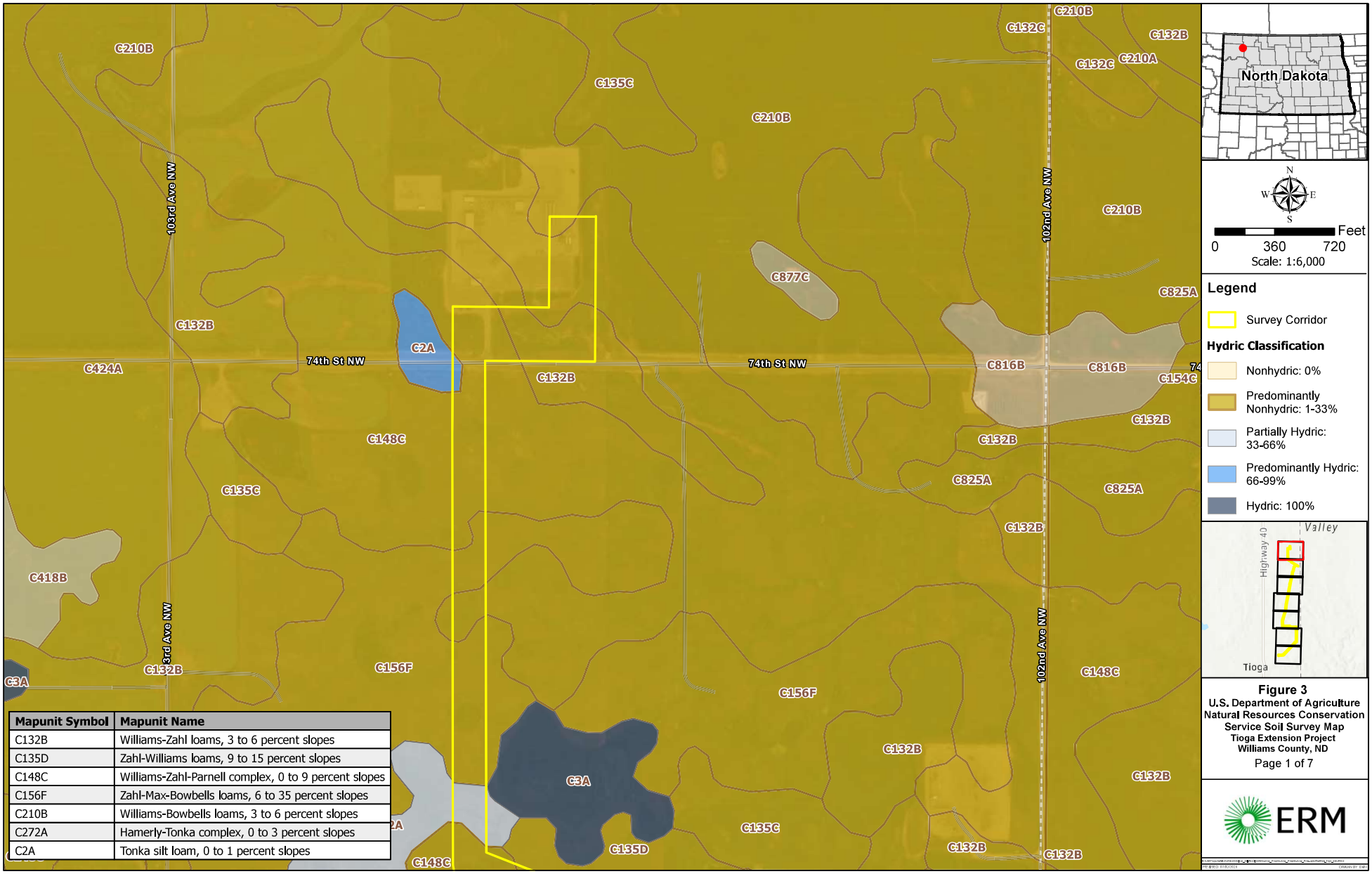
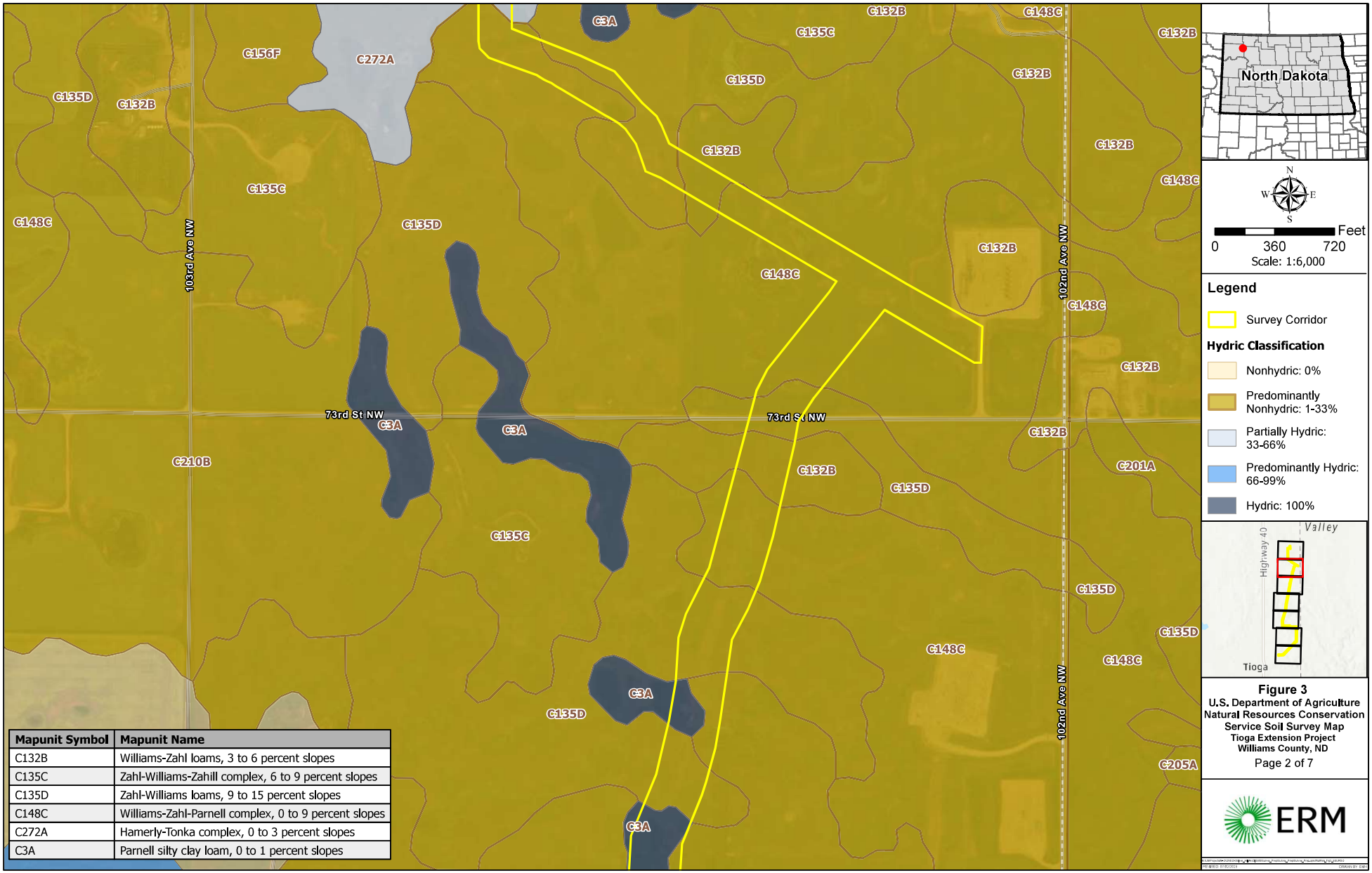


Mapunit Symbol	Mapunit Name
C132B	Williams-Zahl loams, 3 to 6 percent slopes
C135D	Zahl-Williams loams, 9 to 15 percent slopes
C148C	Williams-Zahl-Parnell complex, 0 to 9 percent slopes
C156F	Zahl-Max-Bowbells loams, 6 to 35 percent slopes
C210B	Williams-Bowbells loams, 3 to 6 percent slopes
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes
C2A	Tonka silt loam, 0 to 1 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 1 of 7

ERM



Mapunit Symbol	Mapunit Name
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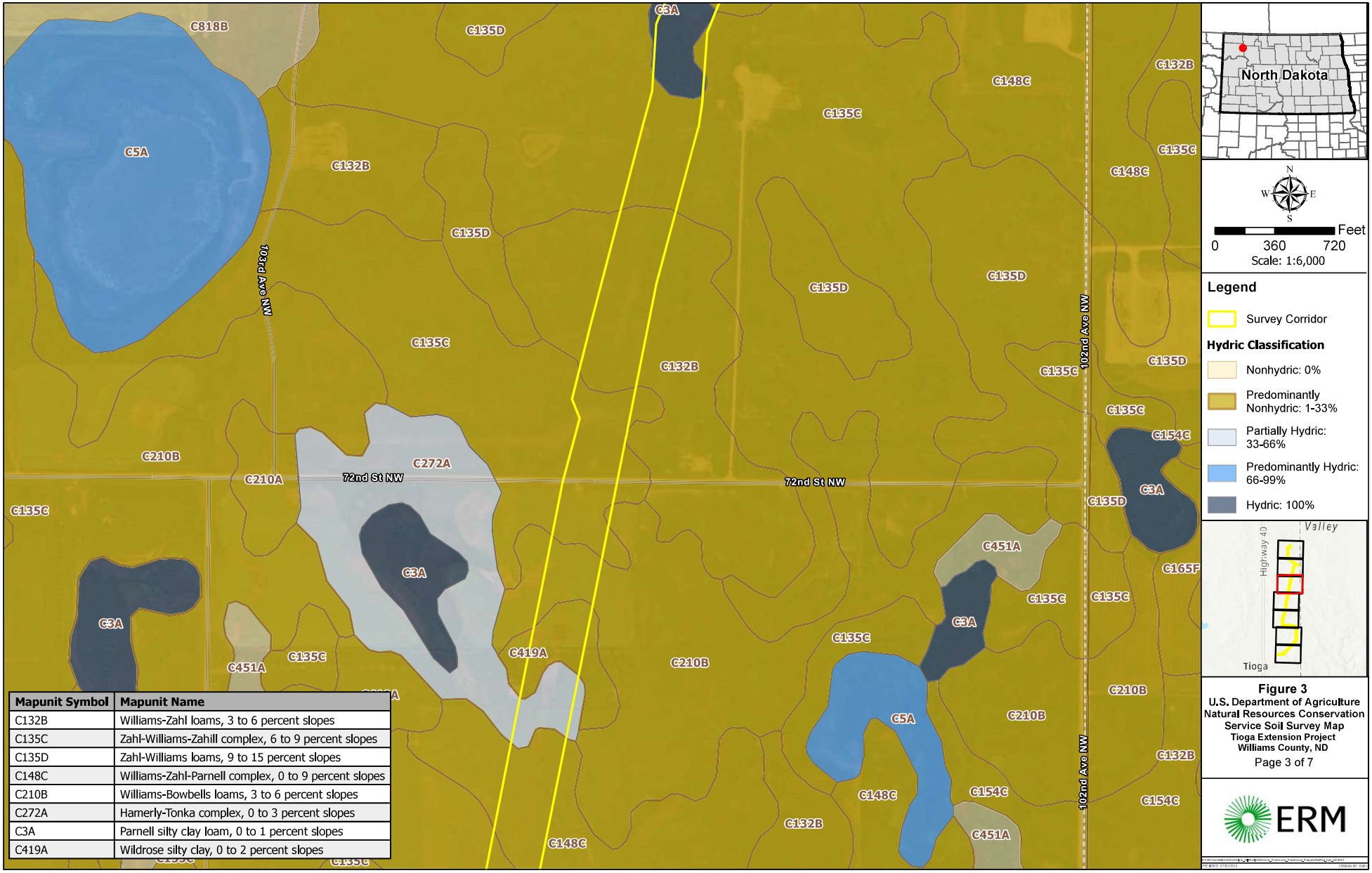
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes
C135D	Zahl-Williams loams, 9 to 15 percent slopes
C148C	Williams-Zahl-Parnell complex, 0 to 9 percent slopes
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes
C3A	Parnell silty clay loam, 0 to 1 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 2 of 7

ERM



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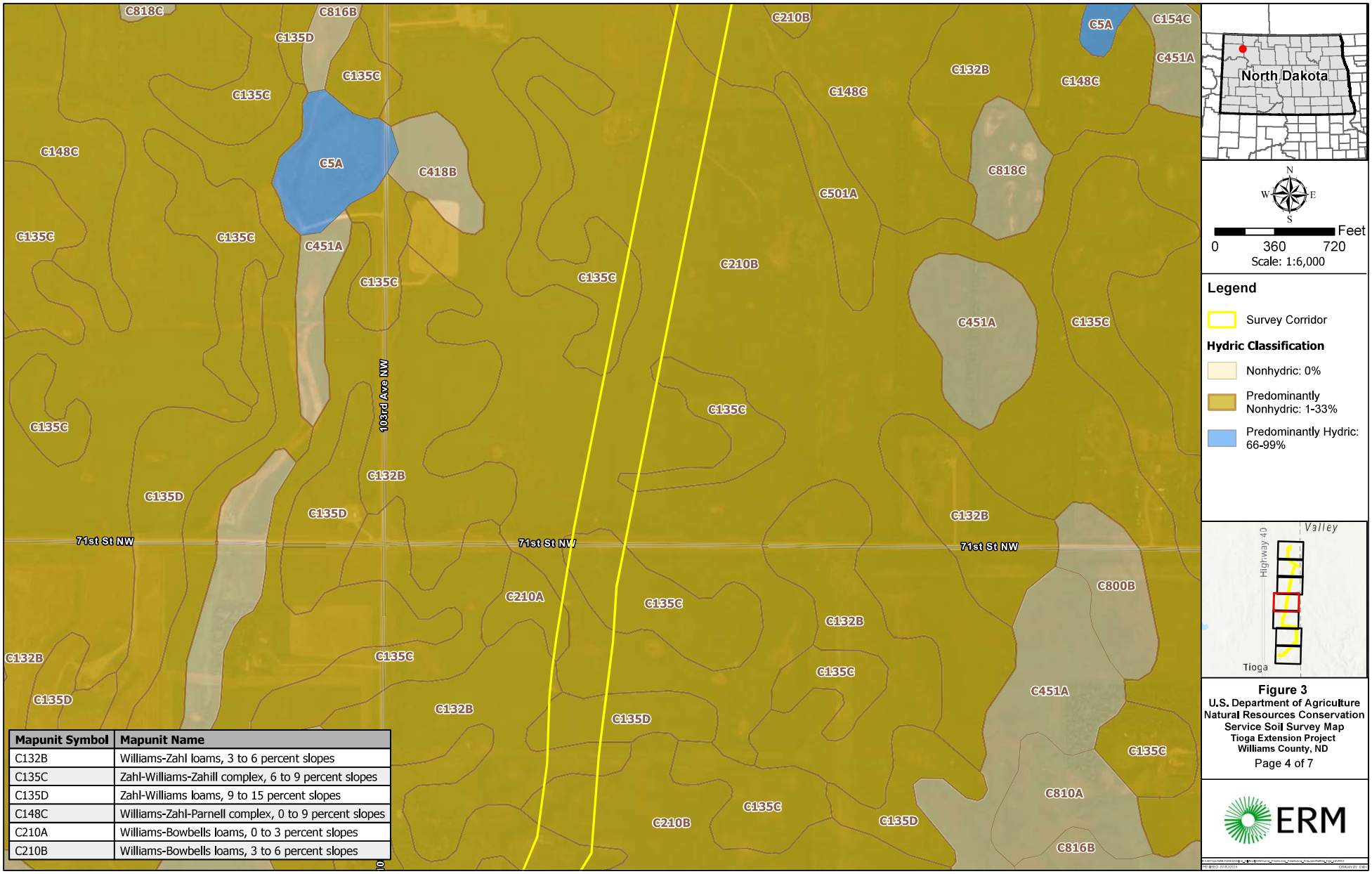
C135D	Zahl-Williams loams, 9 to 15 percent slopes
C148C	Williams-Zahl-Parnell complex, 0 to 9 percent slopes
C210B	Williams-Bowbells loams, 3 to 6 percent slopes
C272A	Hamerly-Tonka complex, 0 to 3 percent slopes
C3A	Parnell silty clay loam, 0 to 1 percent slopes
C419A	Wildrose silty clay, 0 to 2 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 3 of 7

ERM



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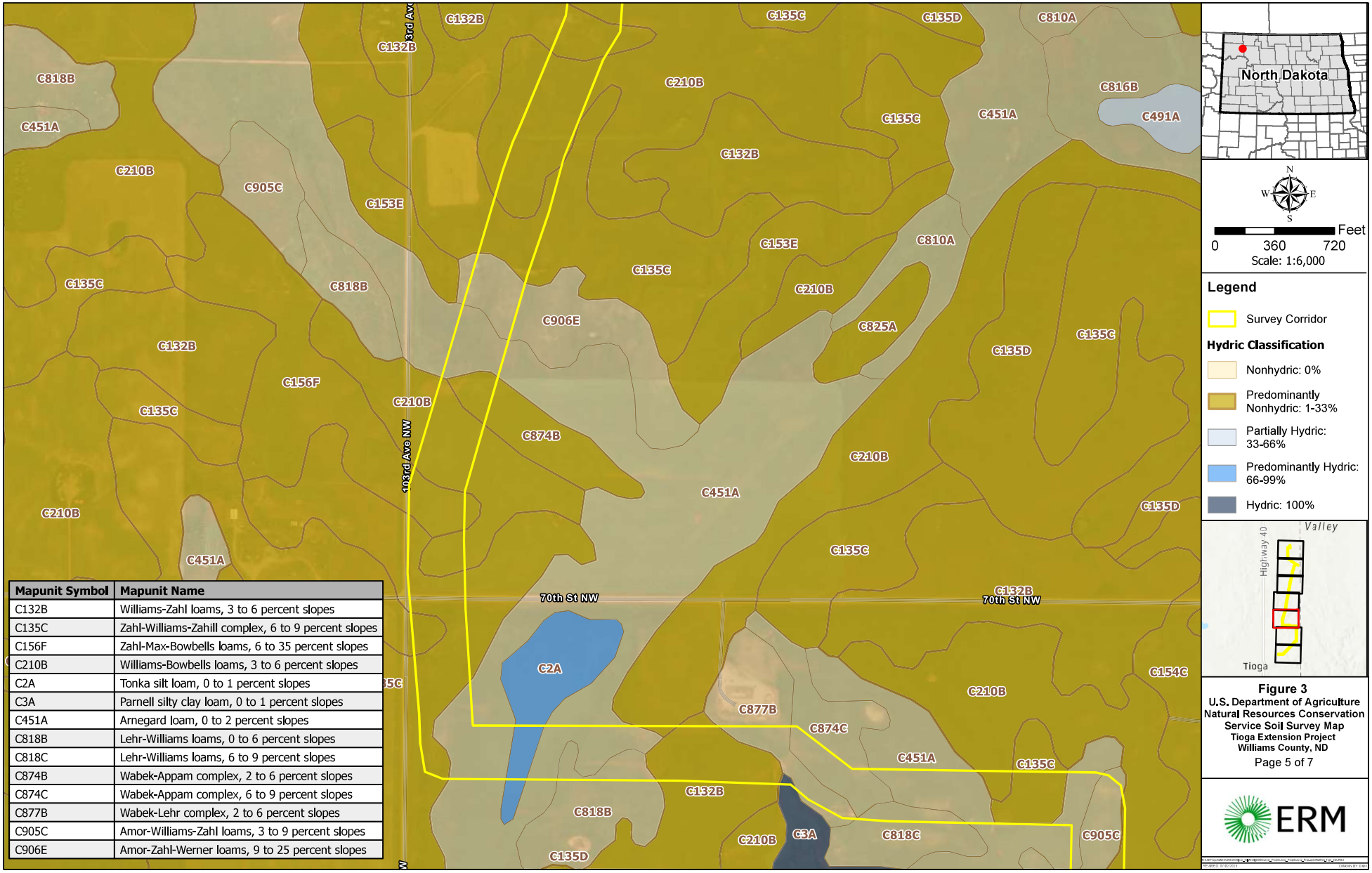
C135D	Zahl-Williams loams, 9 to 15 percent slopes
C148C	Williams-Zahl-Parnell complex, 0 to 9 percent slopes
C210A	Williams-Bowbells loams, 0 to 3 percent slopes
C210B	Williams-Bowbells loams, 3 to 6 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 4 of 7

ERM



Mapunit Symbol	Mapunit Name
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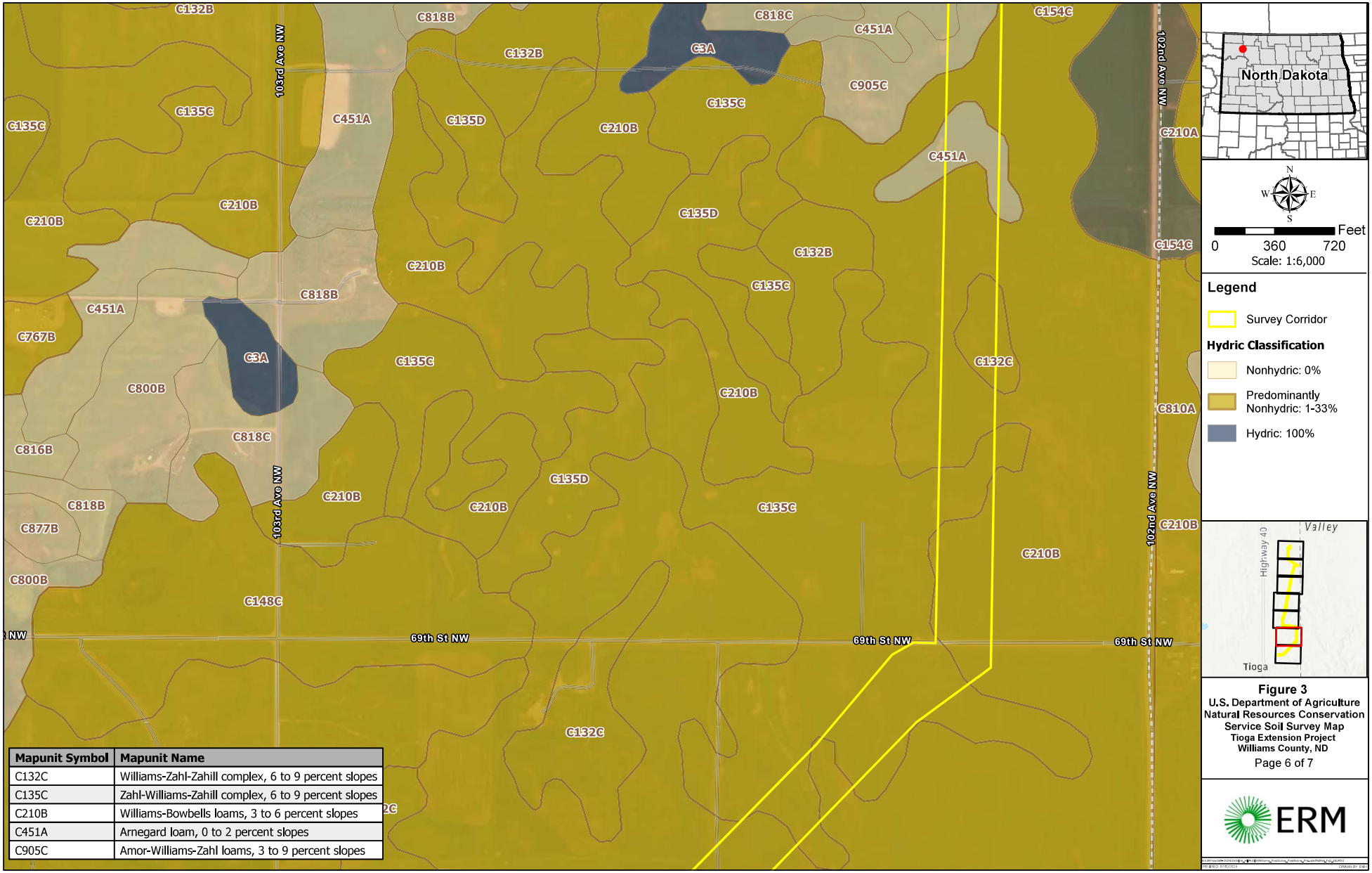
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes
C156F	Zahl-Max-Bowbells loams, 6 to 35 percent slopes
C210B	Williams-Bowbells loams, 3 to 6 percent slopes
C2A	Tonka silt loam, 0 to 1 percent slopes
C3A	Parnell silty clay loam, 0 to 1 percent slopes
C451A	Arnegard loam, 0 to 2 percent slopes
C818B	Lehr-Williams loams, 0 to 6 percent slopes
C818C	Lehr-Williams loams, 6 to 9 percent slopes
C874B	Wabek-Appam complex, 2 to 6 percent slopes
C874C	Wabek-Appam complex, 6 to 9 percent slopes
C877B	Wabek-Lehr complex, 2 to 6 percent slopes
C905C	Amor-Williams-Zahl loams, 3 to 9 percent slopes
C906E	Amor-Zahl-Werner loams, 9 to 25 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 5 of 7

ERM



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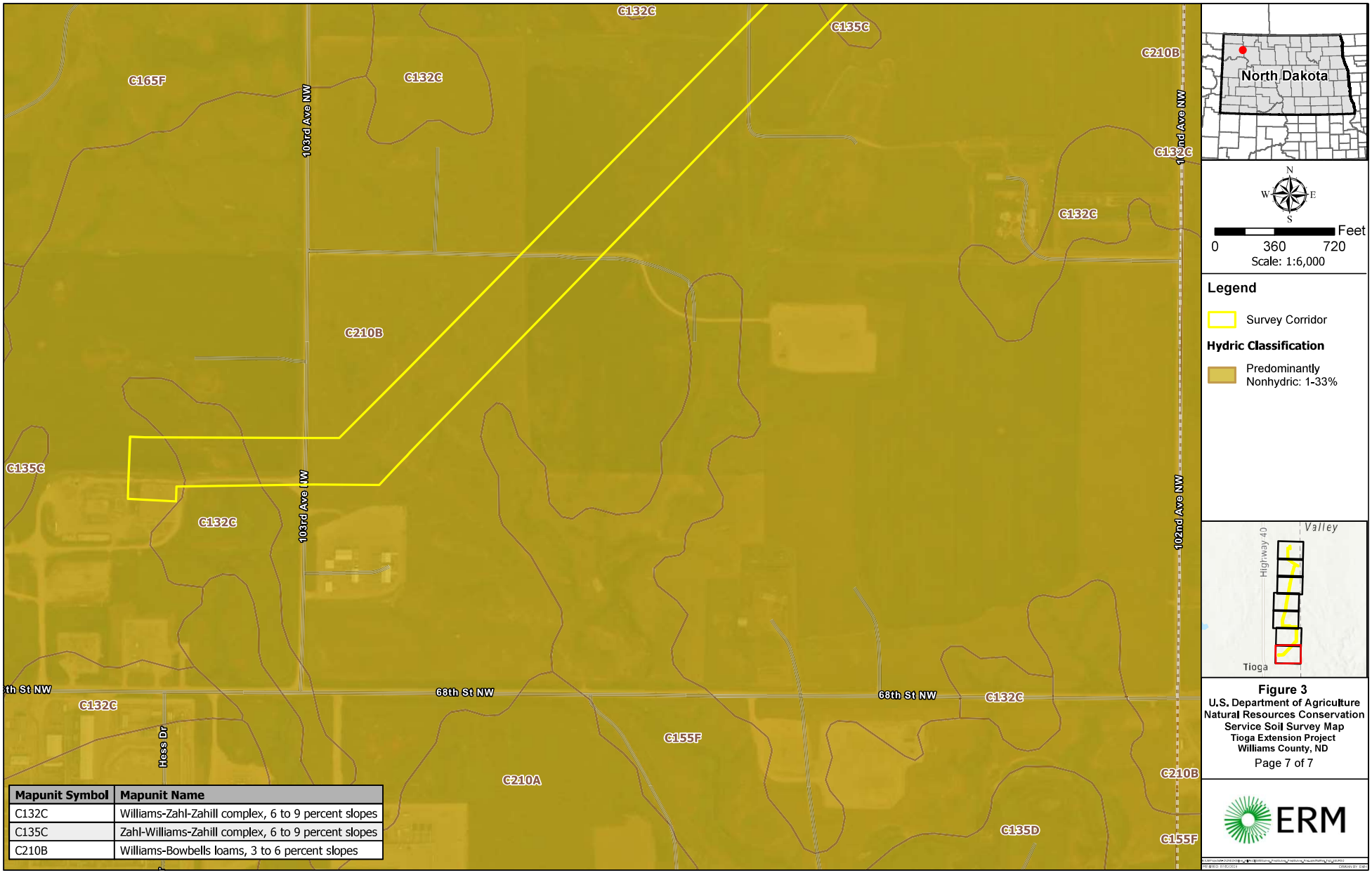
C210B	Williams-Bowbells loams, 3 to 6 percent slopes
C451A	Arnegard loam, 0 to 2 percent slopes
C905C	Amor-Williams-Zahl loams, 3 to 9 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 6 of 7

ERM



Mapunit Symbol	Mapunit Name
C132C	Williams-Zahl-Zahill complex, 6 to 9 percent slopes
C135C	Zahl-Williams-Zahill complex, 6 to 9 percent slopes
C210B	Williams-Bowbells loams, 3 to 6 percent slopes

Figure 3
U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Map
Tioga Extension Project
Williams County, ND
Page 7 of 7

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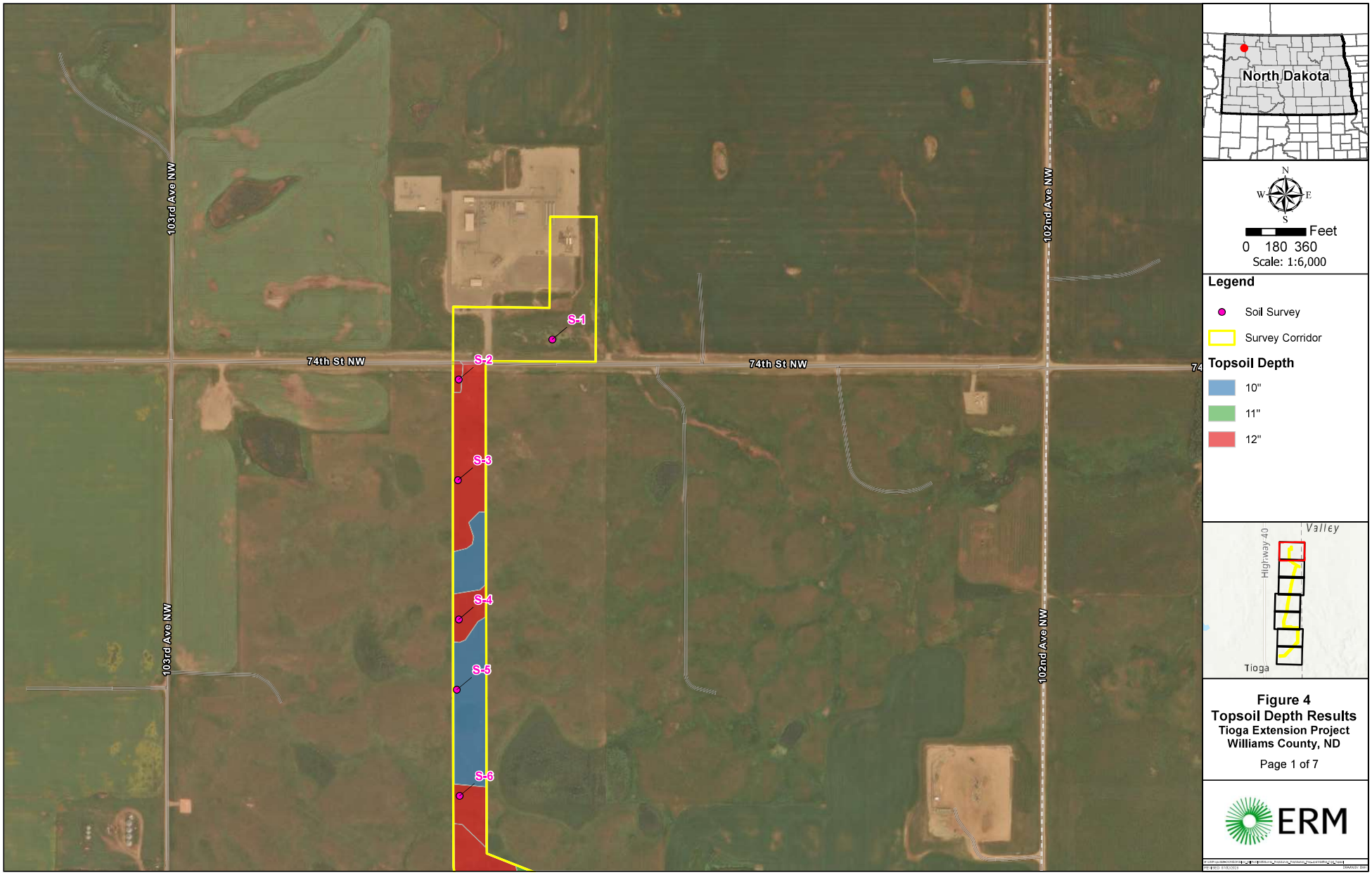
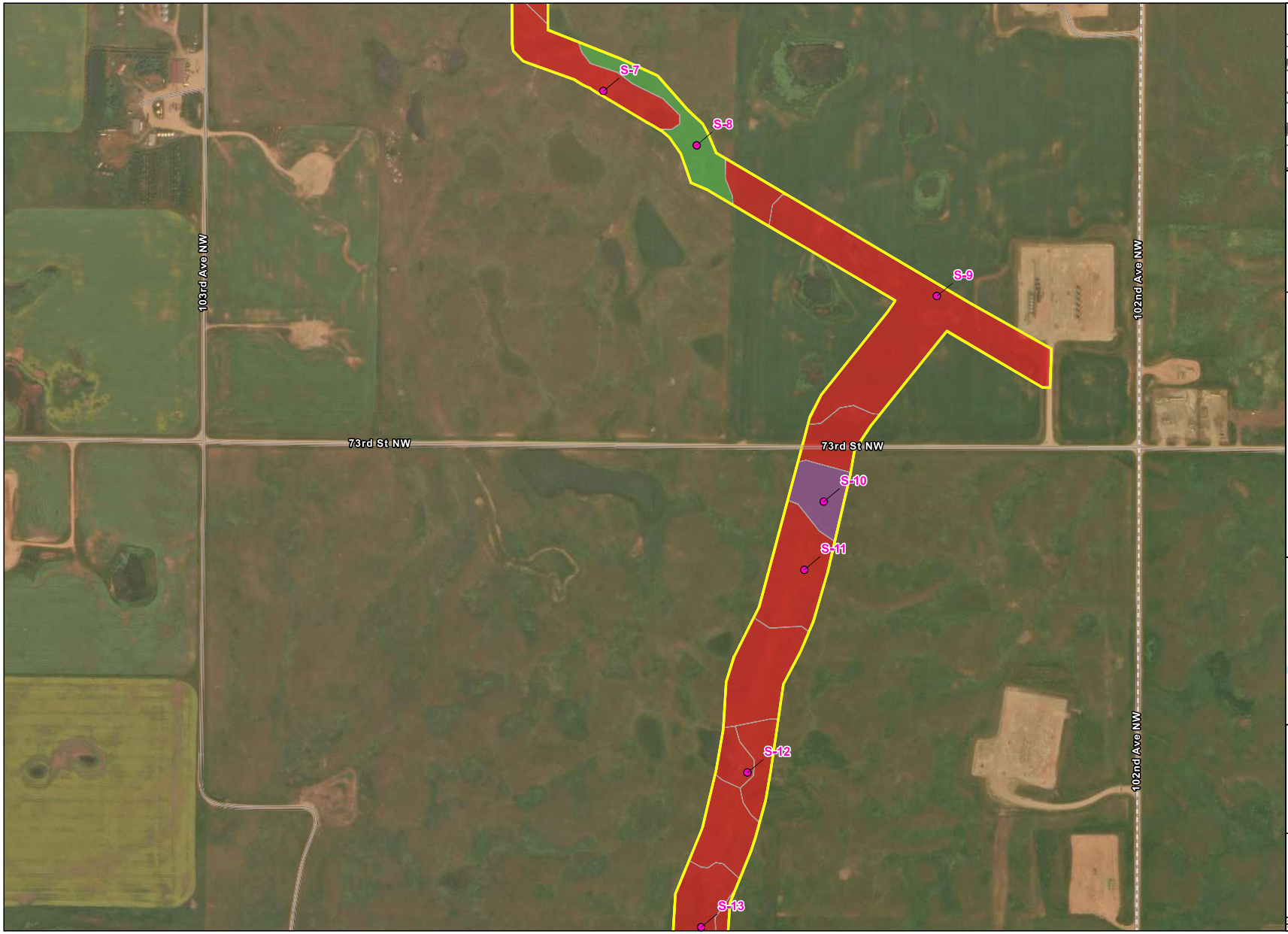
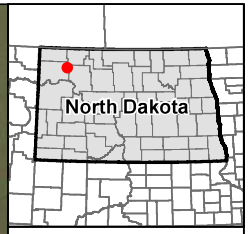


Figure 4
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

Page 1 of 7





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Legend

- Soil Survey
- Survey Corridor

Topsoil Depth

- 8"
- 11"
- 12"

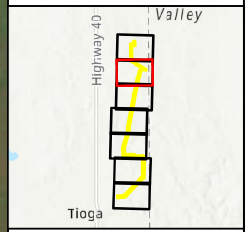
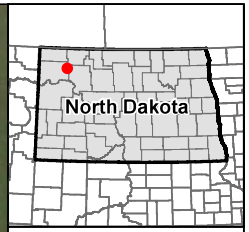


Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

Page 2 of 7

ERM



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Legend

- Soil Survey
- Survey Corridor

Topsoil Depth

- 12"

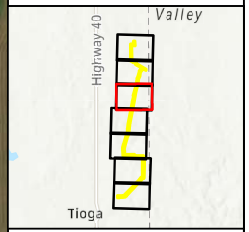
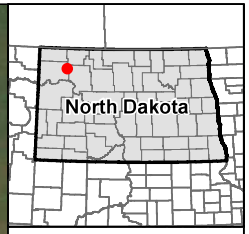


Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

Page 3 of 7

ERM



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Legend

- Soil Survey
- Survey Corridor

Topsoil Depth

- 8"
- 12"

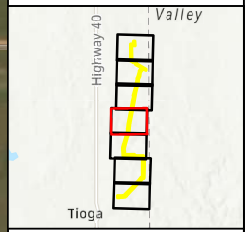

Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

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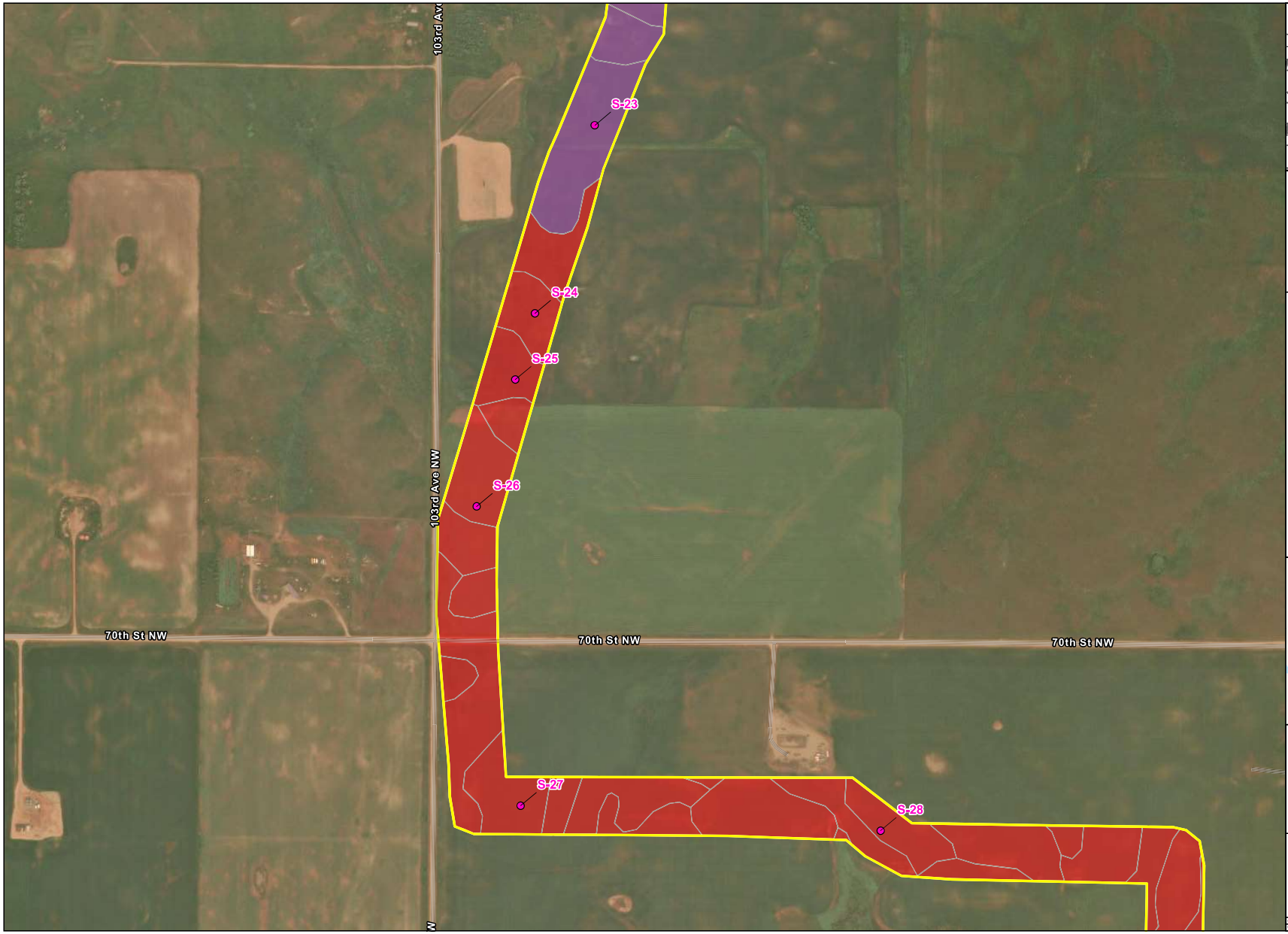
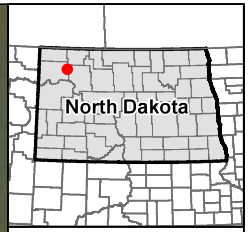
ERM





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0 180 360
Scale: 1:6,000

Legend

- Soil Survey
- Survey Corridor

Topsoil Depth

- 8"
- 12"

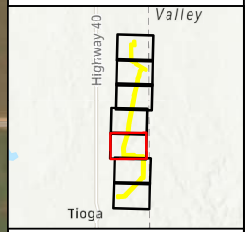

Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

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Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

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Figure 4.4-1
Topsoil Depth Results
Tioga Extension Project
Williams County, ND

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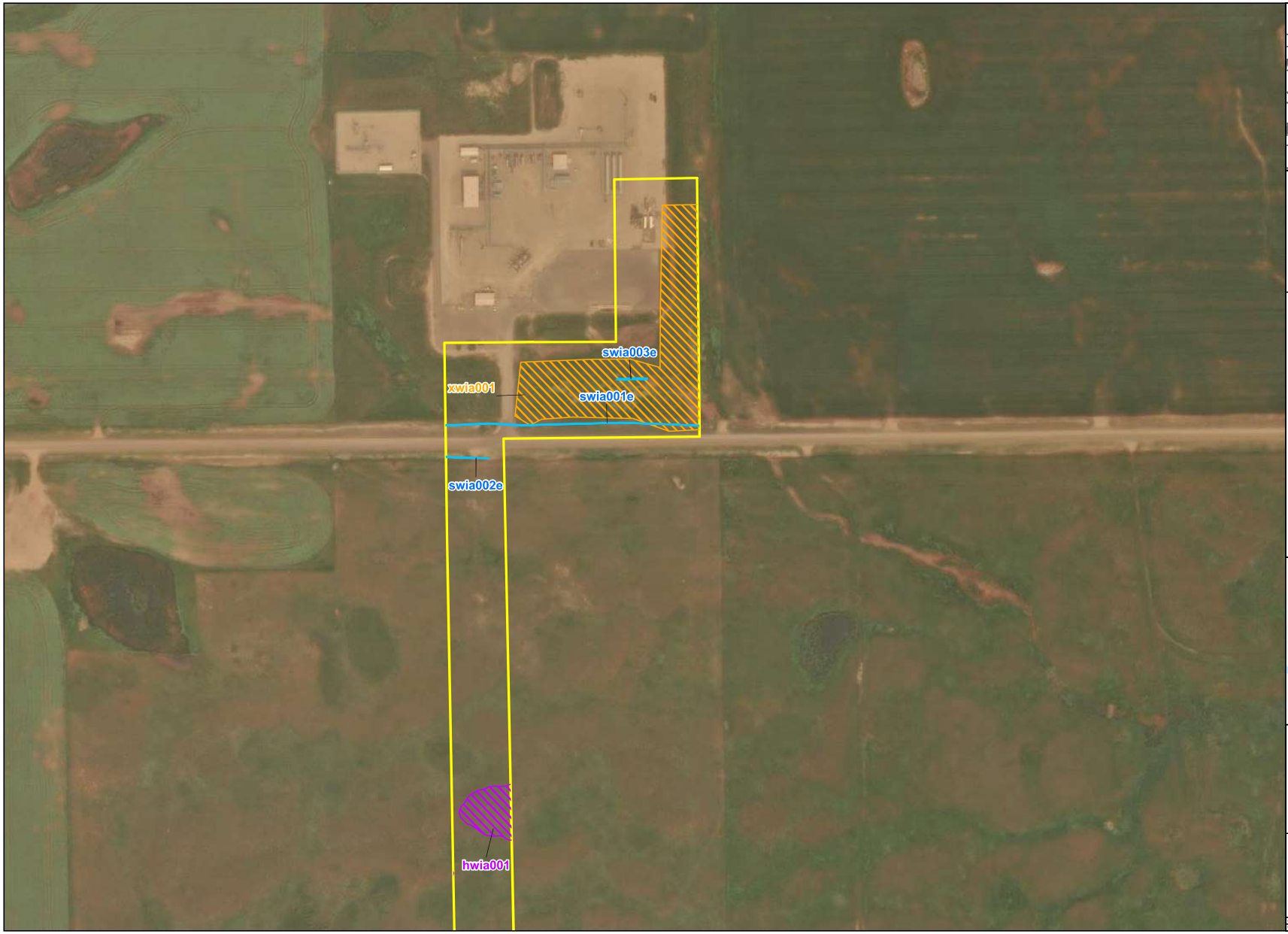

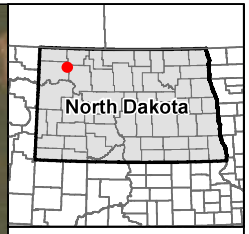

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Scale: 1:3,600

Legend

- Survey Corridor
- Waterbody Polygon
- Noxious Weed Location
- Dakota Skipper Habitat

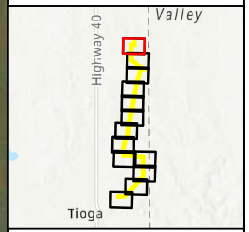

Figure 5
Field Survey Data
Tioga Extension Project
Williams County, ND
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Figure 5
Field Survey Data
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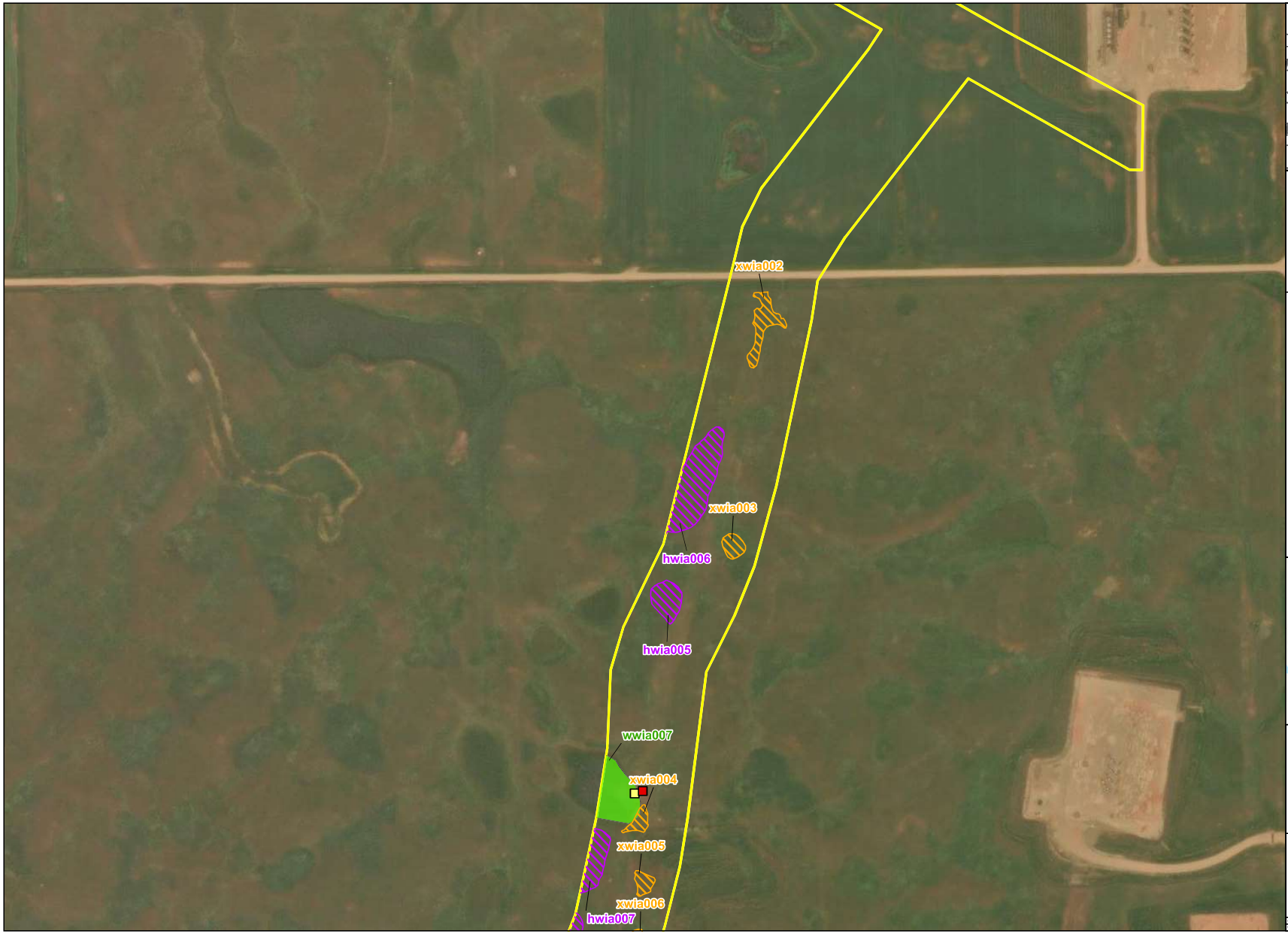

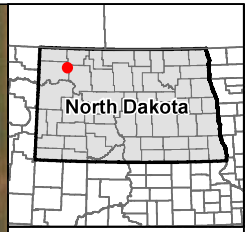

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Scale: 1:3,600

Legend

- PEM
- Upland
- Survey Corridor
- Wetland Polygon
- Noxious Weed Location
- Dakota Skipper Habitat

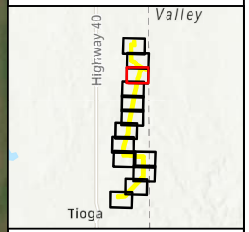

Figure 5
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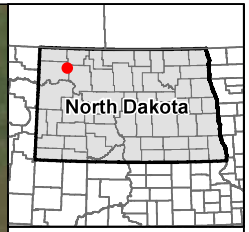

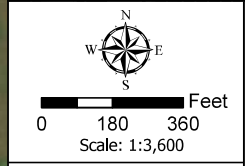

Legend

- PEM
- Upland
- Survey Corridor
- Wetland Polygon
- Noxious Weed Location
- Dakota Skipper Habitat

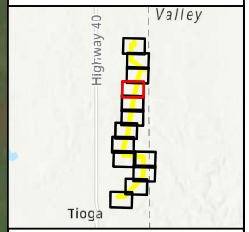

Figure 5
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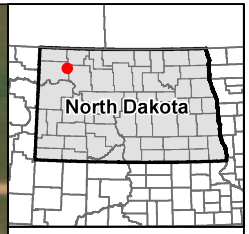

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Feet
0 180 360
Scale: 1:3,600

Legend

- Survey Corridor
- Noxious Weed Location

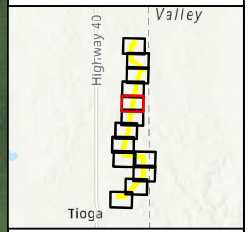

Figure 5
Field Survey Data
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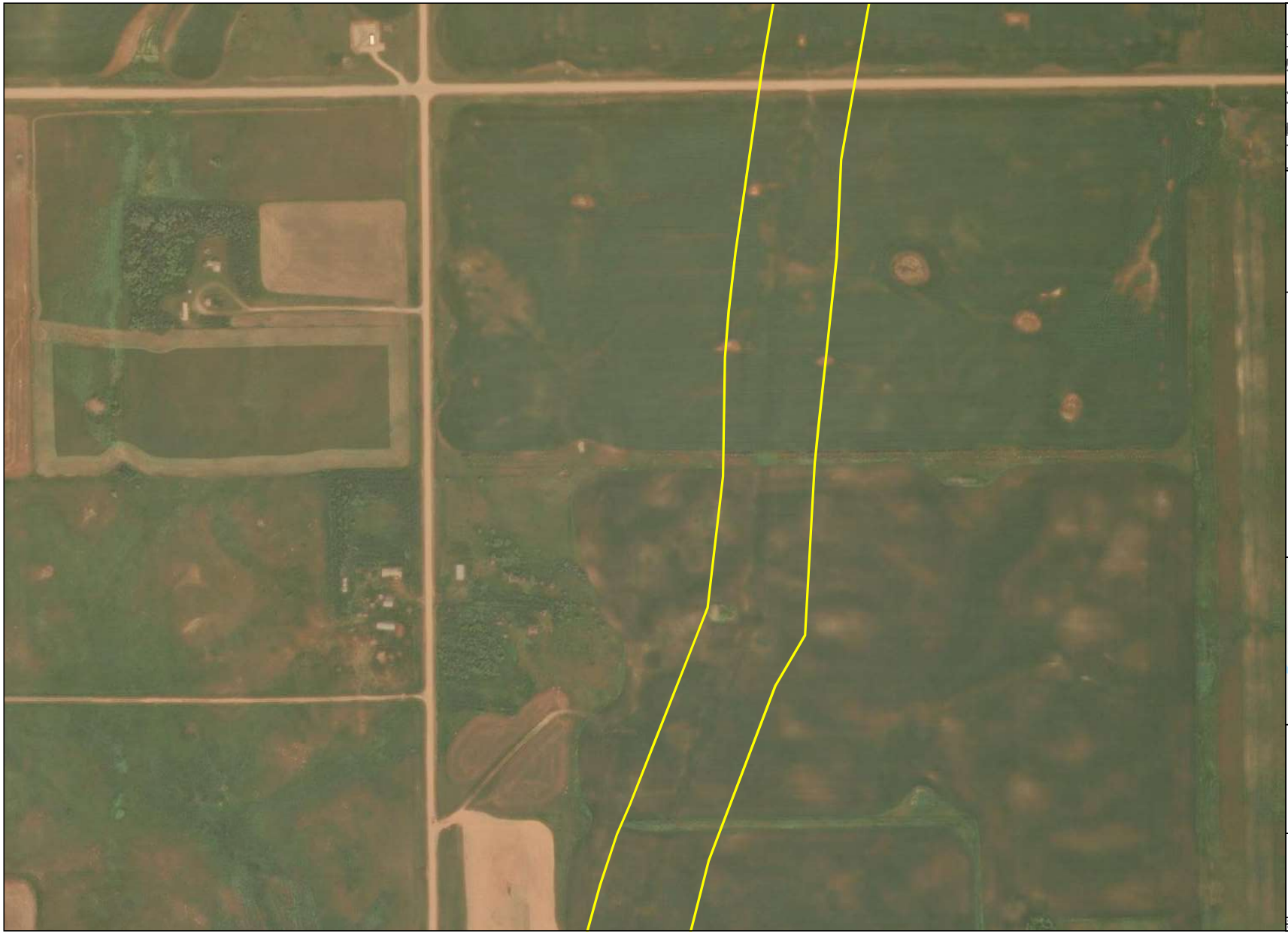
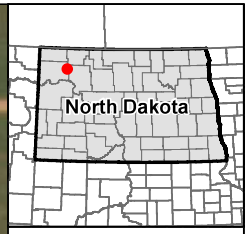
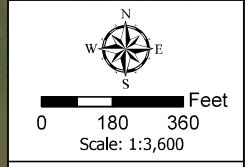
ERM







Legend

Survey Corridor

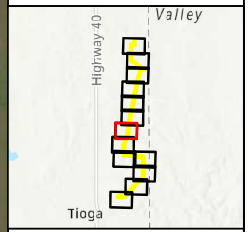


Figure 5
Field Survey Data
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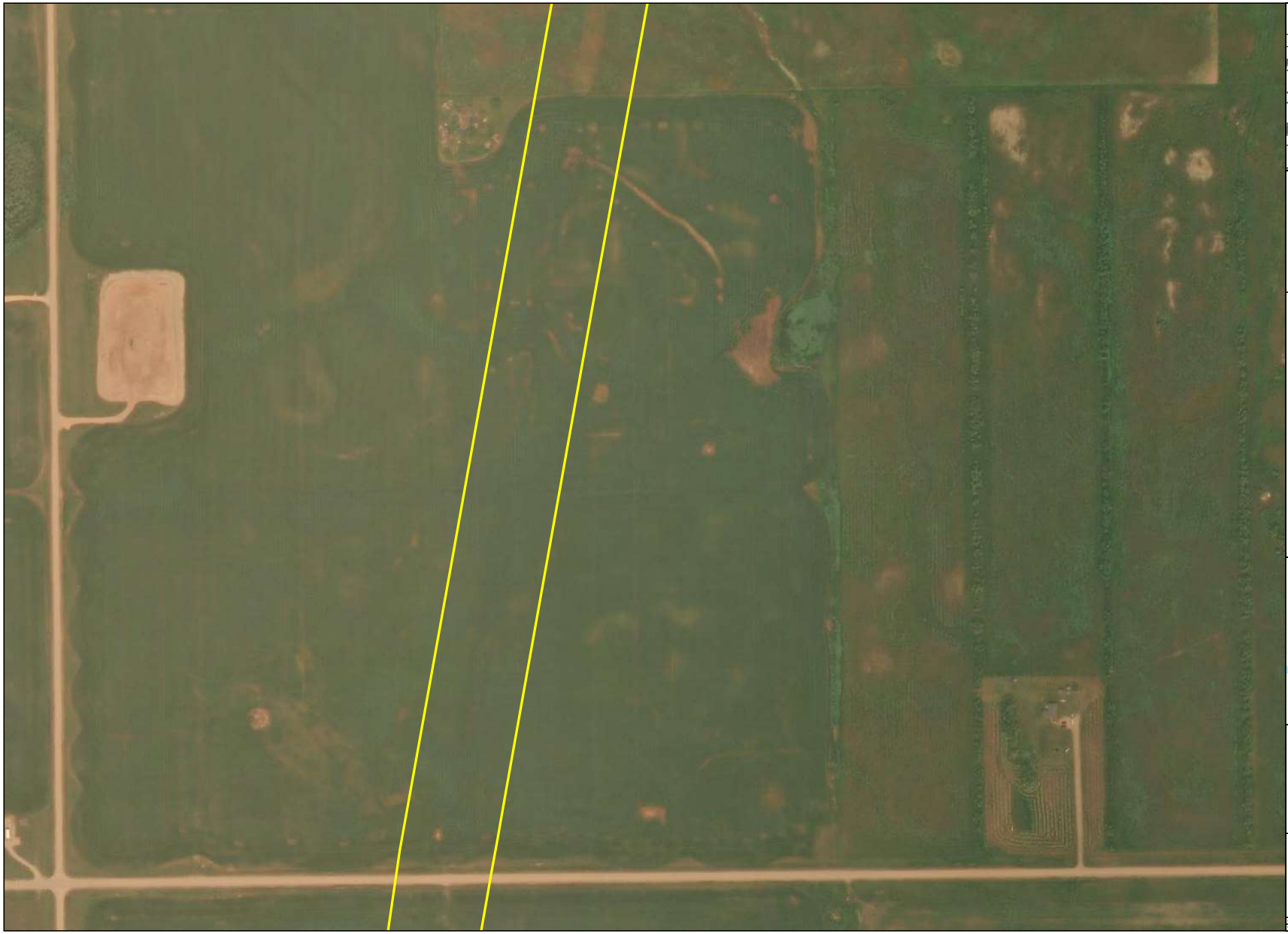
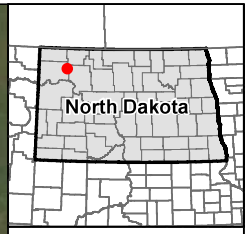
ERM





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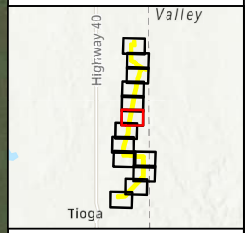

Figure 5
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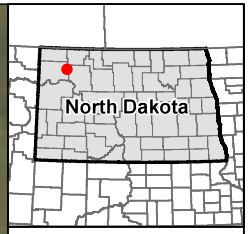

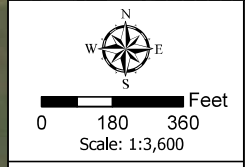

Legend

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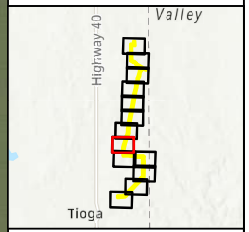

Figure 5
Field Survey Data
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Figure 5
Field Survey Data
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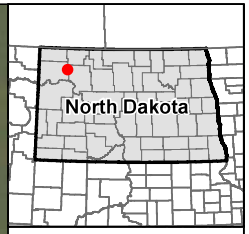

N
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Feet
0 180 360
Scale: 1:3,600

Legend

Survey Corridor

Noxious Weed Location

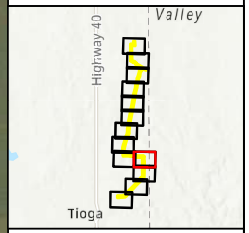

Figure 5
Field Survey Data
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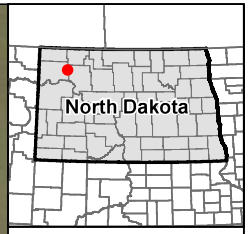

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Feet
0 180 360
Scale: 1:3,600

Legend

- Survey Corridor
- Noxious Weed Location

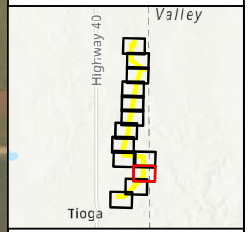

Figure 5
Field Survey Data
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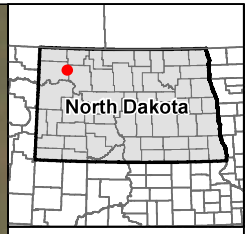

N
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Feet
0 180 360
Scale: 1:3,600

Legend

Survey Corridor

Noxious Weed Location

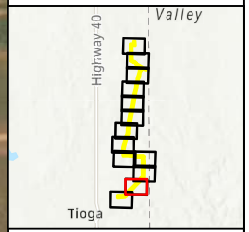

Figure 5
Field Survey Data
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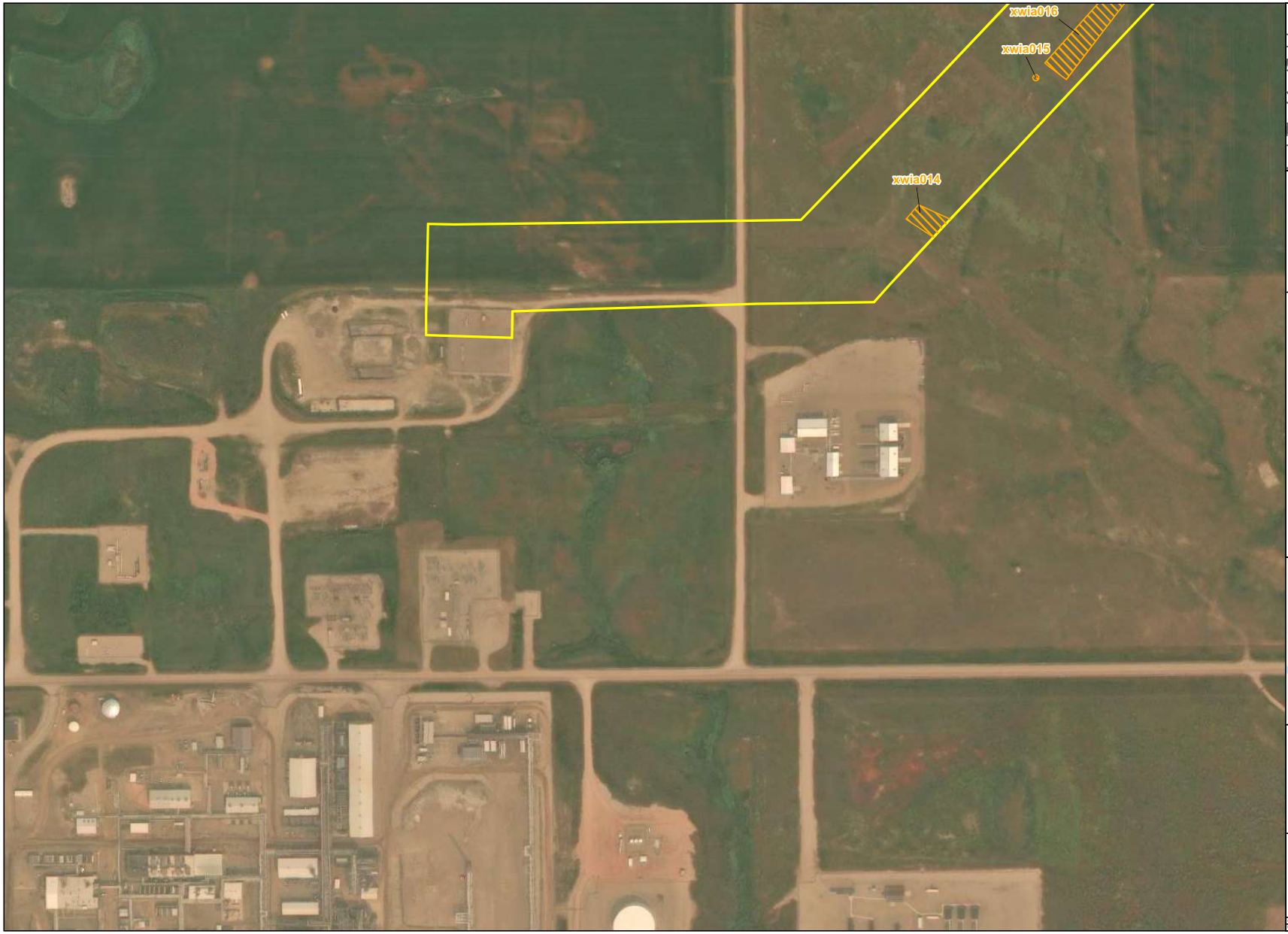

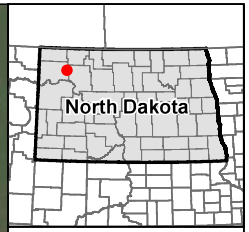

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Feet
0 180 360
Scale: 1:3,600

Legend

- Survey Corridor
- Noxious Weed Location

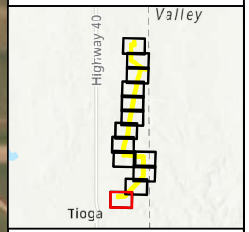

Figure 5
Field Survey Data
Tioga Extension Project
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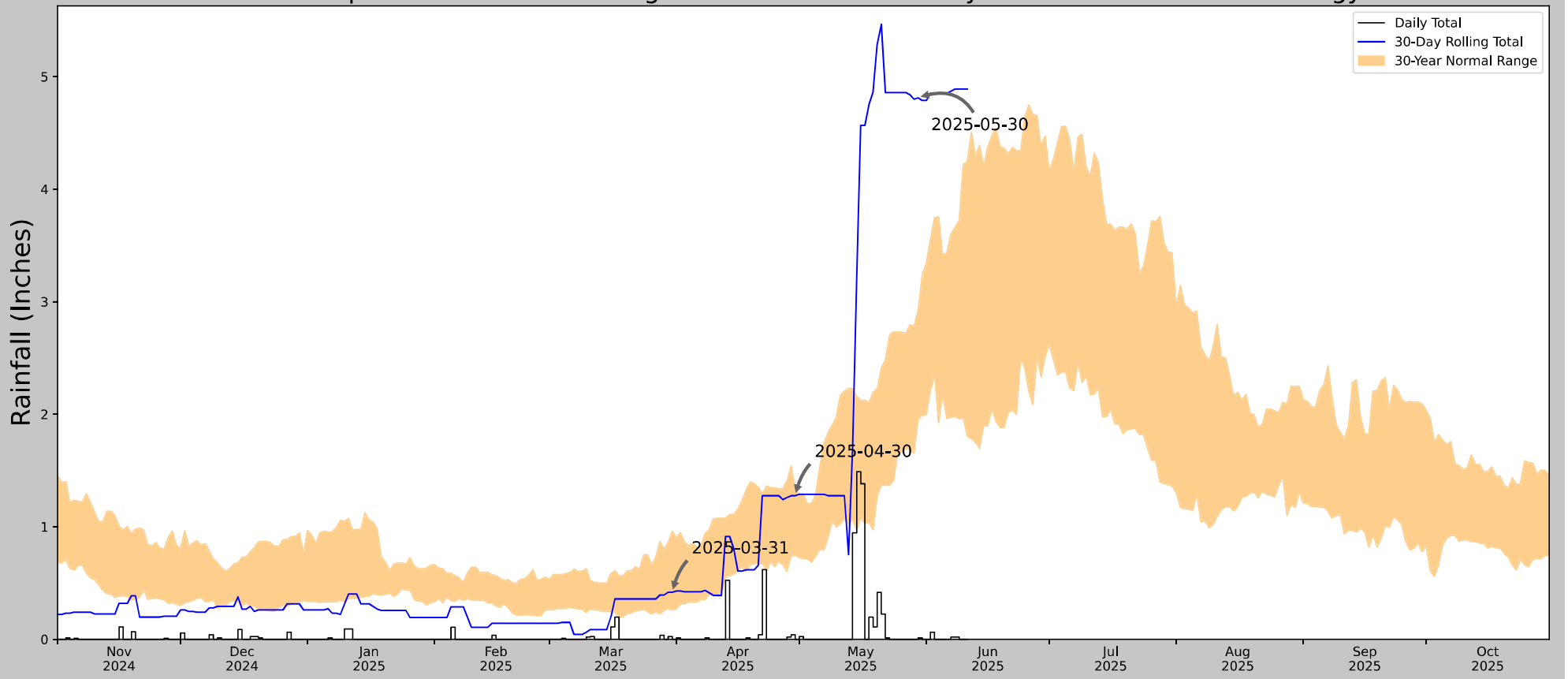
APPENDIX B CLIMATE DATA

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



Coordinates	48.437836, -102.902752
Observation Date	2025-05-30
Elevation (ft)	2425.545
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-05-30	1.954331	2.922047	4.811024	Wet	3	3	9
2025-04-30	0.747244	1.324409	1.275591	Normal	2	2	4
2025-03-31	0.259843	0.962205	0.417323	Normal	2	1	2
Result							Wetter than Normal - 15

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

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
NORTHGATE 5 ESE	48.9675, -102.1703	1841.864	49.546	583.681	51.214	6538	90
BOWBELLS	48.7994, -102.2464	1960.958	12.118	119.094	6.896	1615	0
KENMARE 1 WSW	48.6692, -102.0975	1810.039	20.875	31.825	10.058	2164	0
COLUMBUS	48.9167, -102.8333	1950.131	30.292	108.267	16.911	295	0
POWERS LAKE 1N	48.5722, -102.6467	2205.053	34.88	363.189	28.364	371	0
CROSBY	48.9158, -103.2981	1958.99	51.306	117.126	29.097	369	0
TAGUS	48.3475, -101.9325	2169.948	44.191	328.084	34.384	1	0

APPENDIX C USACE WETLAND DETERMINATION FORMS & PHOTO LOG

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia001
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.479401 | Long: -102.899000 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl-Parnell complex, 0 to 9 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Point is located within an NWI-mapped polygon but no wetland indicators were observed. The area is a native prairie with upland vegetation. According to APT, conditions are wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Pascopyrum smithii	75	Y	FACU
2. Muhlenbergia richardsonis	20	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 5

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	95 (A)		360.00 (B)

Prevalence Index = B/A = 3.79

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** ✓

Remarks:

SOIL

Sampling Point: nowia001

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					SICL	
2-20	10YR 2/1	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia002
Investigator(s): CM, AG | Section, Township, Range: sec 36 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Concave | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.459938 | Long: -102.897445 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams-Zahill complex, 6 to 9 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Non-water point within grassland. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Symphoricarpos occidentalis	5	Y	UPL
2.			
3.			
4.			
5.			
	5.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	85	Y	UPL
2. Comandra umbellata	10	N	UPL
3. Potentilla norvegica	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	95	x 5 =	500
Column Totals:	100 (A)		490.00 (B)
Prevalence Index = B/A =			4.90

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** ✓

Remarks:

SOIL

Sampling Point: nowia002

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 3/1	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia003
Investigator(s): CM, AG | Section, Township, Range: sec 01 T157N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): None | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.455937 | Long: -102.899538 | Datum: WGS84
Soil Map Unit Name: Wildrose silty clay, 0 to 2 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Area is a cultivated agricultural field with no crops growing at time of survey. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0 =Total Cover		
Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0 =Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0 =Total Cover		

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ____ (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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0.00 (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** ✓

Remarks:

SOIL

Sampling Point: nowia003

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia004
Investigator(s): CM, AG | Section, Township, Range: sec 01 T157N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.447990 | Long: -102.901266 | Datum: WGS84
Soil Map Unit Name: Williams-Bowbells loams, 3 to 6 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Point located in cultivated agricultural field with field peas currently growing. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Pisum sativum	40	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 60

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	40	x 5 =	200
Column Totals:	40 (A)		200.00 (B)

Prevalence Index = B/A = 5.0

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** ✓

Remarks:

SOIL

Sampling Point: nowia004

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia005
Investigator(s): CM, AG | Section, Township, Range: sec 12 T157N R095W
Landform (hillside, terrace, etc.): Toeslope | Local relief (concave, convex, none): Concave | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.434136 | Long: -102.905857 | Datum: WGS84
Soil Map Unit Name: Wabek-Appam complex, 2 to 6 percent slopes | NWI classification: R4SBC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Point located at NHD line within cultivated agricultural field. No evidence of an OHWM or channeling from waterflow. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	55	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 45

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	55	x 5 =	275
Column Totals:	55 (A)		275.00 (B)

Prevalence Index = B/A = 5.0

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** ✓

Remarks:

SOIL

Sampling Point: nowia005

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

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

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-28
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia006
Investigator(s): CM, AG | Section, Township, Range: sec 13 T157N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.427694 | Long: -102.898152 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl loams, 3 to 6 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Non-water point at aerial signature. This depressional area has been filled with rock from surrounding agricultural fields for many years. Wetland is present to the south outside of the survey corridor. The aerial signature within the survey corridor is a results of tilling around rocks. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
	0 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa arkansana	5	Y	FACU
2.			
3.			
4.			
5.			
	5.0 =Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	95	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0 =Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0 =Total Cover		

% Bare Ground in Herb Stratum 5

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	95	x 5 =	475
Column Totals:	100 (A)		495.00 (B)

Prevalence Index = B/A = 4.95

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** ✓

Remarks:

SOIL

Sampling Point: nowia006

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					SIL	Soil Restriction

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Cobble

Depth (inches): 6

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-28
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia007
Investigator(s): CM, AG | Section, Township, Range: sec 24 T157N R095W
Landform (hillside, terrace, etc.): Toeslope | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.413564 | Long: -102.894323 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams-Zahill complex, 6 to 9 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ✓, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Non-water point at aerial signature. Area is a slight depression but routinely cultivated for wheat. Any significant hydrology within this area forms more north outside of the survey corridor. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Cirsium arvense	40	Y	FACU
2. Bromus inermis	10	Y	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	10	x 5 =	50
Column Totals:	50 (A)		210.00 (B)

Prevalence Index = B/A = 4.2

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** ✓

Remarks:

SOIL

Sampling Point: nowia007

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-28
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: nowia008
Investigator(s): CM, AG | Section, Township, Range: sec 24 T157N R095W
Landform (hillside, terrace, etc.): Channel | Local relief (concave, convex, none): Concave | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.406992 | Long: -102.903249 | Datum: WGS84
Soil Map Unit Name: Williams-Bowbells loams, 3 to 6 percent slopes | NWI classification: R4SBC
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
Non-water point at NHD line. This is a vegetated channel with no evidence of hydrology or any OHWM. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa compressa	40	Y	FACU
2. Capsella bursa-pastoris	20	Y	FACU
3. Symphoricarpos occidentalis	20	Y	UPL
4. Bromus inermis	15	N	UPL
5. Artemisia biennis	10	N	FACU
6.			
7.			
8.			
9.			
10.			
	105.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	35	x 5 =	175
Column Totals:	105 (A)		455.00 (B)
Prevalence Index = B/A =	4.33		

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 ✓

Remarks:

SOIL

Sampling Point: nowia008

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					SICL	
4-12	10YR 5/2	100					COSL	Soil Restriction

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Cobble

Depth (inches): 12

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:
None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia001_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Toeslope | Local relief (concave, convex, none): Concave | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.485461 | Long: -102.900399 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl-Parnell complex, 0 to 9 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Point located in native upland prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Pascopyrum smithii	95	Y	FACU
2. Rumex crispus	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395.00 (B)
Prevalence Index = B/A =			3.95

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** ✓

Remarks:

SOIL

Sampling Point: wwia001_u

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia001e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.485578 | Long: -102.900638 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl-Parnell complex, 0 to 9 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:
Wetland is a small depression within native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Eleocharis palustris	85	Y	OBL
2. Rumex crispus	15	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85	x 1 =	85
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		130.00 (B)
Prevalence Index = B/A =	1.3		

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** ____

Remarks:

SOIL

Sampling Point: wwia001e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					SICL	
4-15	10YR 2/1	85	10YR 6/3	15	C	M	CL	
15-24	10YR 2/1	90	10YR 4/4	10	C	M	CL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia002_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.482798 | Long: -102.900329 | Datum: WGS84
Soil Map Unit Name: Zahl-Max-Bowbells loams, 6 to 35 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:
Point located in native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Symphoricarpos albus	30	Y	UPL
2.			
3.			
4.			
5.			
	30.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Hesperostipa comata	30	Y	UPL
2. Pascopyrum smithii	25	Y	FACU
3. Anemone canadensis	15	N	FACW
4. Plantago eriopoda	15	N	FAC
5. Thermopsis rhombifolia	10	N	UPL
6. Achillea millefolium	5	N	FACU
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	30	x 4 =	120
UPL species	70	x 5 =	350
Column Totals:	130 (A)		545.00 (B)
Prevalence Index = B/A =			4.19

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** ✓

Remarks:

SOIL

Sampling Point: wwia002_u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia002e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.482704 | Long: -102.900139 | Datum: WGS84
Soil Map Unit Name: Zahl-Max-Bowbells loams, 6 to 35 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:
Wetland located in depressional area within native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Schoenoplectus pungens	65	Y	OBL
2. Eleocharis palustris	15	N	OBL
3. Rumex crispus	10	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		110.00 (B)
Prevalence Index = B/A =	1.22		

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 ____

Remarks:

SOIL

Sampling Point: wwia002e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					SICL	
8-24	10YR 2/1	98	10YR 4/3	2	C	M	SIC	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia003_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.480685 | Long: -102.899601 | Datum: WGS84
Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No √ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes √ 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 √
Hydric Soil Present? Yes ____ No √
Wetland Hydrology Present? Yes ____ No √

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

Remarks:
Upland point located with native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Symphoricarpos albus	10	Y	UPL
2.			
3.			
4.			
5.			
	10.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	20	Y	FACU
2. Artemisia ludoviciana	15	Y	UPL
3. Phalaris arundinacea	15	Y	FACW
4. Thermopsis rhombifolia	10	N	UPL
5. Achillea millefolium	10	N	FACU
6. Pascopyrum smithii	10	N	FACU
7. Plantago eriopoda	5	N	FAC
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	5	x 3 =	15
FACU species	40	x 4 =	160
UPL species	35	x 5 =	175
Column Totals:	95 (A)		380.00 (B)

Prevalence Index = B/A = 4.0

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 √

Remarks:

SOIL

Sampling Point: wwia003_u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					SICL	
2-20	10YR 2/1	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia003e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.480621 | Long: -102.899482 | Datum: WGS84
Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No √ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes √ 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 ____
Hydric Soil Present? Yes √ No ____
Wetland Hydrology Present? Yes √ No ____

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

Remarks:
Wetland located in depressional area within native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	95	Y	FACW
2. Rumex crispus	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		205.00 (B)

Prevalence Index = B/A = 2.05

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 ____

Remarks:

SOIL

Sampling Point: wwia003e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					SIL	
3-18	10YR 2/1	96	10YR 4/3	4	C	M/PL	SIC	
18-24	10YR 2/1	100					SIC	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia004_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.478726 | Long: -102.896677 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams loams, 9 to 15 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
Upland point located in native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa arkansana	5	Y	FACU
2.			
3.			
4.			
5.			
	5.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Muhlenbergia richardsonis	55	Y	FAC
2. Pascopyrum smithii	40	Y	FACU
3. Plantago eriopoda	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	105 (A)		360.00 (B)
Prevalence Index = B/A =			3.43

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 ✓

Remarks:

SOIL

Sampling Point: wwia004_u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100					SICL	
16-20	10YR 4/1	100					SIC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia004e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.478825 | Long: -102.896819 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams loams, 9 to 15 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____	**Is the Sampled Area within a Wetland?** Yes ✓ No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks:
Wetland located in depressional area within native prairie. Active pipeline construction present on south side of wetland boundary. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	60	Y	FACW
2. Schoenoplectus pungens	15	N	OBL
3. Alopecurus arundinaceus	10	N	FACW
4. Mentha arvensis	5	N	FACW
5. Anemone canadensis	5	N	FACW
6. Rumex crispus	5	N	FAC
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	80	x 2 =	160
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		190.00 (B)
Prevalence Index = B/A =	1.9		

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 ____

Remarks:

SOIL

Sampling Point: wwia004e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					SIC	
4-22	10YR 2/1	95	10YR 4/4	5	C	M	SIC	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia005_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.478651 | Long: -102.895745 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams loams, 9 to 15 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No √ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes √ 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 √
Hydric Soil Present? Yes ____ No √
Wetland Hydrology Present? Yes ____ No √

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

Remarks:
Upland point located within native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa arkansana	10	Y	FACU
2.			
3.			
4.			
5.			
	10.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Muhlenbergia richardsonis	75	Y	FAC
2. Bromus inermis	15	N	UPL
3. Artemisia ludoviciana	5	N	UPL
4. Geum triflorum	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	15	x 4 =	60
UPL species	20	x 5 =	100
Column Totals:	110 (A)		385.00 (B)
Prevalence Index = B/A =			3.5

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 √

Remarks:

SOIL

Sampling Point: wwia005_u

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia005e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.478656 | Long: -102.895645 | Datum: WGS84
Soil Map Unit Name: Zahl-Williams loams, 9 to 15 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No √ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes √ 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 ____
Hydric Soil Present? Yes √ No ____
Wetland Hydrology Present? Yes √ No ____

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

Remarks:
Wetland located in depressional area within native prairie. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	50	Y	FACW
2. Solidago gigantea	15	Y	FAC
3. Pascopyrum smithii	15	Y	FACU
4. Rumex crispus	10	N	FAC
5. Anemone canadensis	10	N	FACW
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	25	x 3 =	75
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100 (A)		255.00 (B)

Prevalence Index = B/A = 2.55

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 ____

Remarks:

SOIL

Sampling Point: wwia005e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	90	10YR 4/4	10	C	M	SICL	
12-20	10YR 3/1	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia006_u
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.476981 | Long: -102.892224 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl-Parnell complex, 0 to 9 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No √ (If no, explain in Remarks.)
Are Vegetation √, Soil √, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 √
Hydric Soil Present? Yes ____ No √
Wetland Hydrology Present? Yes ____ No √

Is the Sampled Area within a Wetland? **Yes** ____ **No** √

Remarks:
Point located within tilled wheat field, no vegetation growing at time of survey. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0 =Total Cover		
Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0 =Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0 =Total Cover		

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ____ (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	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0.00 (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** √

Remarks:

SOIL

Sampling Point: wwia006_u

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	100						

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-26
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia006e_w
Investigator(s): CM, AG | Section, Township, Range: sec 25 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.476976 | Long: -102.892311 | Datum: WGS84
Soil Map Unit Name: Williams-Zahl-Parnell complex, 0 to 9 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:
Wetland within depression in a tilled agricultural field. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phragmites australis	75	Y	FACW
2. Typha latifolia	25	Y	OBL
3. Rumex crispus	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	75	x 2 =	150
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		190.00 (B)
Prevalence Index = B/A =	1.81		

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 ____

Remarks:

SOIL

Sampling Point: wwia006e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					SICL	
3-12	10YR 2/1	98	10YR 4/4	2	C	M	SICL	
12-20	10YR 2/1	95	10YR 4/4	5	C	M	SIC	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia007_u
Investigator(s): CM, AG | Section, Township, Range: sec 36 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.469168 | Long: -102.894891 | Datum: WGS84
Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:
Upland within grassland with cattle disturbance and on the edge of existing pipeline. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	55	Y	UPL
2. Capsella bursa-pastoris	20	Y	FACU
3. Agrostis gigantea	10	N	FACW
4. Carex praegracilis	5	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (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	20	x 4 =	80
UPL species	55	x 5 =	275
Column Totals:	90 (A)		385.00 (B)
Prevalence Index = B/A =			4.28

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 ✓

Remarks:

SOIL

Sampling Point: wwia007_u

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 %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/3	100					SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia007e_w
Investigator(s): CM, AG | Section, Township, Range: sec 36 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.469157 | Long: -102.895055 | Datum: WGS84
Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes | NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:
Wetland within depression with heavy cattle disturbance causing deep rutting and lack of vegetation. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Eleocharis palustris	25	Y	OBL
2. Artemisia biennis	10	Y	FACU
3. Bromus inermis	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 60

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	5	x 5 =	25
Column Totals:	40 (A)		90.00 (B)

Prevalence Index = B/A = 2.25

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 ____

Remarks:

SOIL

Sampling Point: wwia007e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/1	75	10YR 4/3	25	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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) **(LRF F)**

Field Observations:

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

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

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

Remarks:

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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dako | Sampling Point: wwia008_u
Investigator(s): CM, AG | Section, Township, Range: sec 36 T158N R095W
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex | Slope (%): 3-7
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.467279 | Long: -102.895876 | Datum: WGS84
Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ 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 ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

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

Remarks:
Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	35	Y	UPL
2. Capsella bursa-pastoris	25	Y	FACU
3. Potentilla norvegica	15	N	FAC
4. Agrostis gigantea	15	N	FACW
5. Plantago rhodosperma	10	N	FACU
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	35	x 4 =	140
UPL species	35	x 5 =	175
Column Totals:	100 (A)		390.00 (B)

Prevalence Index = B/A = 3.9

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 ✓

Remarks:

SOIL

Sampling Point: wwia008_u

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					SICL	
6-20	10YR 3/3	90	10YR 4/4	10	C	PL	SICL	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **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 Invertebrates (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 ✓ Depth (inches): ___

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

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

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

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

Remarks:

None 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: Tioga Lateral Extension | City/County: Williams County | Sampling Date: 2025-05-27
Applicant/Owner: ONEOK | State: North Dakota | Sampling Point: wwia008e_w
Investigator(s): CM, AG | Section, Township, Range: sec 36 T158N R095W
Landform (hillside, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 0-2
Subregion (LRR/MLRA): LRR F, MLRA 53B | Lat: 48.467099 | Long: -102.895951 | Datum: WGS84
Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes | NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✓ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:
Wetland in grassland depression, pipeline disturbance on east side. Cattle disturbance within wetland. Climatic/hydrologic conditions are within a moderate drought with wetter than normal conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Spartina pectinata	45	Y	FACW
2. Eleocharis palustris	30	Y	OBL
3. Agrostis gigantea	20	Y	FACW
4. Rumex crispus	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	65	x 2 =	130
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		175.00 (B)

Prevalence Index = B/A = 1.75

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 ____

Remarks:

SOIL

Sampling Point: wwia008e_w

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					SIC	
8-15	10YR 3/1	90	10YR 4/3	10	C	M	SIC	
15-24	10YR 3/1	75	10YR 4/3	25	C	M	SIC	

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

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

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR 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)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **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 Invertebrates (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) **(LRF F)**

Field Observations:

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

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

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

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

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

Remarks:

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia001	
Date Visit: 5/26/2025	
	
Latitude: 48.479432	
Longitude: -102.89901	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia001	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.479432	
Longitude: -102.899011	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia001	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.479432	
Longitude: -102.899011	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia001	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.479431	
Longitude: -102.899011	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia001	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.479431	
Longitude: -102.899011	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia002	
Date Visit: 5/27/2025	
	
Latitude: 48.459964	
Longitude: -102.897485	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia002	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.459957	
Longitude: -102.897483	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia002	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.459959	
Longitude: -102.897483	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia002	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.459957	
Longitude: -102.897477	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia002	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.459958	
Longitude: -102.897477	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia003	
Date Visit: 5/27/2025	
	
Latitude: 48.45613	
Longitude: -102.898966	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia003	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.455953	
Longitude: -102.899524	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia003	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.455949	
Longitude: -102.899527	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia003	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.455948	
Longitude: -102.899522	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia003	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.455949	
Longitude: -102.899524	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia004	
Date Visit: 5/27/2025	
	
Latitude: 48.447997	
Longitude: -102.90125	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia004	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.447999	
Longitude: -102.901223	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia004	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.448001	
Longitude: -102.901212	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia004	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.448004	
Longitude: -102.901209	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia004	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.448006	
Longitude: -102.90121	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia005	
Date Visit: 5/27/2025	
	
Latitude: 48.434148	
Longitude: -102.905824	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia005	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.434158	
Longitude: -102.905838	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia005	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.434163	
Longitude: -102.905833	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia005	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.434158	
Longitude: -102.905827	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia005	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.434157	
Longitude: -102.905827	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia006	
Date Visit: 6/6/2025	
Direction: N	
Latitude: 48.427483	
Longitude: -102.898103	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia006	
Date Visit: 6/6/2025	
Direction: W	
Latitude: 48.427486	
Longitude: -102.898103	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia006	
Date Visit: 6/6/2025	
Direction: S	
Latitude: 48.427483	
Longitude: -102.898103	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia006	
Date Visit: 6/6/2025	
Direction: E	
Latitude: 48.427483	
Longitude: -102.898103	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia006	
Date Visit: 6/6/2025	
Latitude: 48.427481	
Longitude: -102.898114	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia007	
Date Visit: 5/28/2025	
	
Latitude: 48.413578	
Longitude: -102.894339	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia007	
Date Visit: 5/28/2025	
Direction: N	
Latitude: 48.41358	
Longitude: -102.894325	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia007	
Date Visit: 5/28/2025	
Direction: E	
Latitude: 48.413576	
Longitude: -102.89432	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia007	
Date Visit: 5/28/2025	
Direction: S	
Latitude: 48.413582	
Longitude: -102.894325	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia007	
Date Visit: 5/28/2025	
Direction: W	
Latitude: 48.41358	
Longitude: -102.894324	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 5/28/2025	
	
Latitude: 48.407001	
Longitude: -102.90323	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 5/28/2025	
Direction: N	
Latitude: 48.407001	
Longitude: -102.90323	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 5/28/2025	
Direction: E	
Latitude: 48.407001	
Longitude: -102.90323	

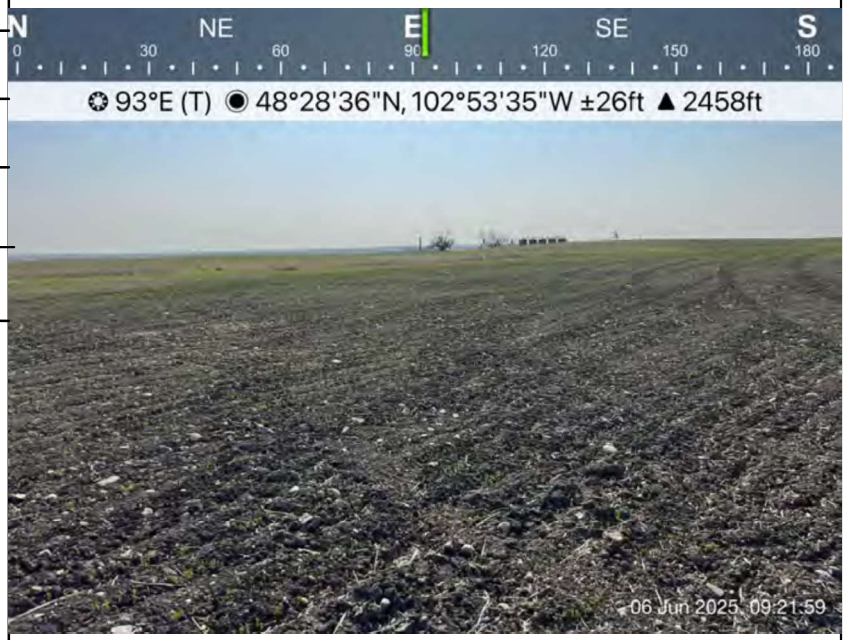
PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 5/28/2025	
Direction: S	
Latitude: 48.407001	
Longitude: -102.90323	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 5/28/2025	
Direction: W	
Latitude: 48.407001	
Longitude: -102.90323	

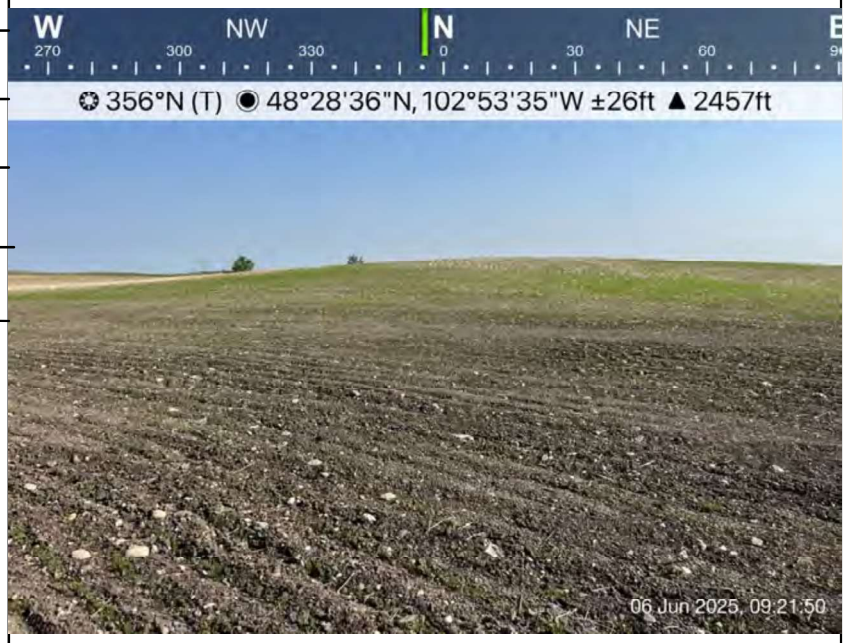
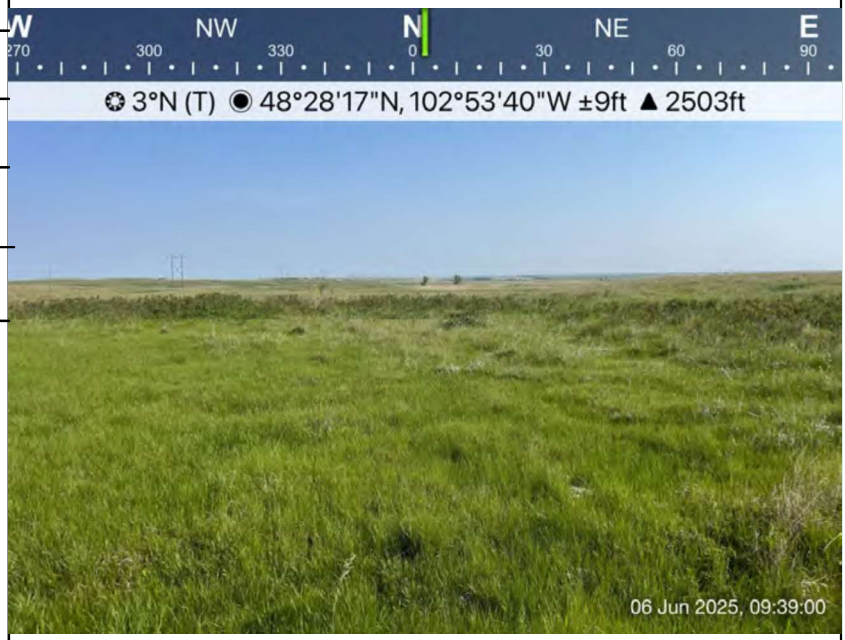
PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 6	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 6/6/2025	
Direction: W	
Latitude: 48.476867	
Longitude: -102.893278	
Photo No.: 7	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 6/6/2025	
Direction: S	
Latitude: 48.476875	
Longitude: -102.893269	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 8	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 6/6/2025	
Direction: W	
Latitude: 48.476875	
Longitude: -102.893275	
Photo No.: 9	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 6/6/2025	
Direction: E	
Latitude: 48.476878	
Longitude: -102.893269	

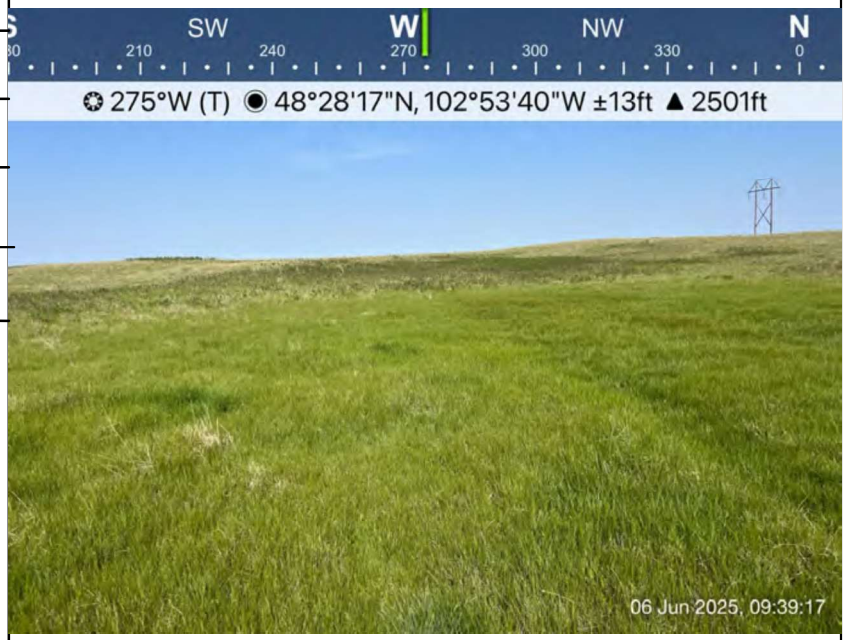
PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 10	**Site Location:** Williams County, North Dakota
Site ID: nowia008	
Date Visit: 6/6/2025	
Direction: N	
Latitude: 48.476881	
Longitude: -102.893272	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: nowia009	
Date Visit: 6/6/2025	
Direction: N	
Latitude: 48.471406	
Longitude: -102.894664	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: nowia009	
Date Visit: 6/6/2025	
Direction: E	
Latitude: 48.471397	
Longitude: -102.89465	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: nowia009	
Date Visit: 6/6/2025	
Direction: S	
Latitude: 48.471408	
Longitude: -102.894667	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Non-Water Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: nowia009	
Date Visit: 6/6/2025	
Direction: E	
Latitude: 48.471414	
Longitude: -102.894689	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: nowia009	
Date Visit: 6/6/2025	
Direction: W	
Latitude: 48.471411	
Longitude: -102.894669	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia001e	
Date Visit: 5/26/2025	
	
Latitude: 48.485567	
Longitude: -102.900622	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia001e	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.485565	
Longitude: -102.900617	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia001e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.485566	
Longitude: -102.900616	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia001e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.485567	
Longitude: -102.900615	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia001e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.48557	
Longitude: -102.900607	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia002e	
Date Visit: 5/26/2025	
	
Latitude: 48.482695	
Longitude: -102.900144	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia002e	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.482697	
Longitude: -102.900143	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia002e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.482696	
Longitude: -102.900143	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia002e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.482696	
Longitude: -102.90014	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia002e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.482697	
Longitude: -102.90014	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia003e	
Date Visit: 5/26/2025	
	
Latitude: 48.480616	
Longitude: -102.899487	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia003e	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.480617	
Longitude: -102.899487	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia003e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.480616	
Longitude: -102.899487	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia003e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.480616	
Longitude: -102.899487	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia003e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.480617	
Longitude: -102.899487	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia004e	
Date Visit: 5/26/2025	
	
Latitude: 48.478834	
Longitude: -102.896804	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia004e	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.478834	
Longitude: -102.896804	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia004e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.478834	
Longitude: -102.896804	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia004e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.478834	
Longitude: -102.896804	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia004e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.478834	
Longitude: -102.896804	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia005e **Date Visit:** 5/26/2025 **Latitude:** 48.47869 **Longitude:** -102.895638	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia005e **Date Visit:** 5/26/2025 **Direction:** N **Latitude:** 48.478701 **Longitude:** -102.895648	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia005e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.478701	
Longitude: -102.895638	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia005e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.478704	
Longitude: -102.895639	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia005e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.478702	
Longitude: -102.895634	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia006e	
Date Visit: 5/26/2025	
	
Latitude: 48.476961	
Longitude: -102.8923	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia006e	
Date Visit: 5/26/2025	
Direction: N	
Latitude: 48.476965	
Longitude: -102.892302	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia006e	
Date Visit: 5/26/2025	
Direction: E	
Latitude: 48.476962	
Longitude: -102.892301	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia006e	
Date Visit: 5/26/2025	
Direction: S	
Latitude: 48.476964	
Longitude: -102.8923	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia006e	
Date Visit: 5/26/2025	
Direction: W	
Latitude: 48.476967	
Longitude: -102.8923	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia007e	
Date Visit: 5/27/2025	
	
Latitude: 48.469163	
Longitude: -102.89503	
Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia007e	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.469163	
Longitude: -102.89503	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia007e	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.469163	
Longitude: -102.89503	
Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia007e	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.469163	
Longitude: -102.89503	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia007e	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.469163	
Longitude: -102.89503	
Photo No.: 1	**Site Location:** Williams County, North Dakota
Site ID: wwia008e	
Date Visit: 5/27/2025	
	
Latitude: 48.467119	
Longitude: -102.895974	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 2	**Site Location:** Williams County, North Dakota
Site ID: wwia008e	
Date Visit: 5/27/2025	
Direction: N	
Latitude: 48.467119	
Longitude: -102.895974	
Photo No.: 3	**Site Location:** Williams County, North Dakota
Site ID: wwia008e	
Date Visit: 5/27/2025	
Direction: E	
Latitude: 48.467119	
Longitude: -102.895974	

PHOTOGRAPHIC LOG
ONEOK Tioga Extension - Wetland Points

Photo No.: 4	**Site Location:** Williams County, North Dakota
Site ID: wwia008e	
Date Visit: 5/27/2025	
Direction: S	
Latitude: 48.467119	
Longitude: -102.895974	
Photo No.: 5	**Site Location:** Williams County, North Dakota
Site ID: wwia008e	
Date Visit: 5/27/2025	
Direction: W	
Latitude: 48.467119	
Longitude: -102.895974	

APPENDIX D THREATENED AND ENDANGERED SPECIES CONSULTATIONS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
Phone: (701) 250-4481 Fax: (701) 355-8513
https://www.fws.gov/office/north-dakota-ecological-services

In Reply Refer To: 02/24/2025 19:58:19 UTC
Project code: 2025-0052403
Project Name: Tioga Extension Pipeline

Subject: Technical Assistance letter for 'Tioga Extension Pipeline' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the North Dakota Determination Key (DKey) for project review and guidance for federally listed species.

Daniel DeJoode:

The U.S. Fish and Wildlife Service (Service) received on **February 24, 2025** your effects determination for the 'Tioga Extension Pipeline' (the Action) using the North Dakota DKey for project review and guidance for federally-listed species within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance of the Service's North Dakota DKey, you made the following effect determination(s) for the proposed Action:

Species	**Listing Status**	**Determination**
Dakota Skipper (*Hesperia dacotae*)	Threatened	May affect
Piping Plover (*Charadrius melodus*)	Threatened	NLAA
Rufa Red Knot (*Calidris canutus rufa*)	Threatened	NLAA
Whooping Crane (*Grus americana*)	Endangered	No effect

Further coordination with the North Dakota Ecological Services Field Office is recommended for those species with a determination of "may affect" listed above. Please contact our office at (701) 250-4481 or your Service point of contact in the North Dakota Ecological Services Field Office to discuss methods to avoid or minimize potential adverse effects to those species.

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

- Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Proposed Endangered
- Western Regal Fritillary *Argynnis idalia occidentalis* Proposed Threatened

Bald and Golden Eagle Protection Act(BGEPA): The following resources are provided to project proponents and consulting agencies as additional information. Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service.

The Service developed the National Bald Eagle Management Guidelines to advise landowners, land managers, and others who share public and private lands with Bald Eagles when and under what circumstances the protective provisions of the BGEPA may apply to their activities. The guidelines should be consulted prior to conducting new or intermittent activity near an eagle nest. This document may be downloaded from the following site: https://www.fws.gov/media/national-bald-eagle-management-guidelines-0

To determine if your proposed activity is likely to take or disturb Golden or Bald Eagles, please call our office at 701-250-4481 for further review.

If the recommendations detailed in the National Bald Eagle Management Guidelines cannot be followed, you may apply for a permit to authorize removal or relocation of an eagle nest in certain instances. The application form is located at http://www.fws.gov/forms/3-200-72.pdf.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Tioga Extension Pipeline

2. Description

The following description was provided for the project 'Tioga Extension Pipeline':

> 7.6 mile, 6 inch diameter new construction of a natural gas liquids pipeline.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@48.447145449999994,-102.9010982058119,14z

QUALIFICATION INTERVIEW

1. Is your project a federal project or have a federal nexus (funded, permitted or other authorization by a federal agency)?

   No

2. Does your project consist solely of interior or exterior rehabilitation and renovations of existing residential, commercial buildings and public facilities?

   Note: These activities may involve exterior painting, replacement of doors, windows, siding or roofing.

   No

3. Does your project consist solely of work done within the existing footprint of a building such as electrical, heating plumbing, basement and foundation repairs?

   No

4. Does your project consist solely of additions onto an existing structure?

   No

5. Does your project consist solely of renting or purchasing existing buildings?

   No

6. Does your project consist solely of demolition of structures within Incorporated City Boundaries?

   No

7. Does your project consist solely of repair or replacement of existing parking lots, sidewalks, roads or other paved or graveled surfaces?

   No

8. Does your project consist solely of repair or replacement or upgrading playground equipment?

   No

9. Is your project a wind farm?

   No

10. Is your project a new construction on an existing residential infill lot within Incorporated City Boundaries?

    No

11. Are you building overhead power lines?

    No

12. Are you constructing a communication tower or other permanent structure?

    No

13. Are there any wetlands in your project area?

    Yes

14. Will the project impact a wetland?

    Note: Common impacts to wetlands include filling, grading, removal of vegetation, building construction and changes in water levels and drainage patterns.

    Yes

15. Is your project located entirely within a developed area?

    Note: A developed area is an area that is already paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping.

    No

16. [Semantic] Does the action area intersect the Dakota Skipper area of influence?

    Automatically answered
    Yes

17. Is the project area on disturbed land (e.g. urban areas, previously cropped areas, non-native haylands, pasture or other grassland that is dominated by non-native species, or in areas where trees or shrubs predominate)?

    No

18. Is the project area on native prairie/grassland?

    Yes

19. Is there suitable Dakota skipper habitat present, either Type A or Type B Dakota Skipper habitat?

    Note: Suitable habitat contains forbs (purple coneflower, violet, asters, purple prairie clover, etc.) along with prairie grasses (little and big blue stem, prairie dropseed, and needlegrasses).

    Yes

20. Will your project involve a broadcast pesticide application including herbicides and insecticides?

    No

21. Does Dakota Skipper occur in the action area?

    If unknown, you can conduct surveys following the 2l2024 USFWS Dakota Skipper Survey Protocol and return to this key when you have results; or assume presence by selecting Yes.

    Yes

22. Will the action occur during the Dakota Skipper flight season (June 10th-July 25th)?

    No

23. Will your action disturb the ground or existing vegetation?

    Note: This includes any off road vehicle access (including use of mat roads), soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, vegetation management (including removal or maintenance using equipment or chemicals, cultivation, development, etc.).

    Yes

24. [Semantic] Does the action area intersect the Whooping Crane area of infuence?

    Automatically answered

    Yes

25. If a whooping crane is spotted within one-mile of construction, will you stop construction and immediately call the USFWS North Dakota Ecological Service Office?

    Yes

26. [Semantic] Does the action area intersect the Piping Plover area of infuence?

    Automatically answered

    Yes

27. Will the project result in changes to river hydrology (i.e. via construction of lock & dams, major waterbody diversion/major (over 1,000,000 gallons/day water withdrawals, etc.)?

    No

28. Is the project a cooling water intake for a power plant regulated under section 316 of the Clean Water Act?

    Note: This applies to facilities that are designed to withdraw at least two million gallons per day of cooling water from waters of the U.S.

    No

29. Is this an instream sand and gravel mining project?

    No

30. Will this project completely cross the Missouri River or Lake Sakakawea?

    Note: This includes project under, over and through the Missouri River or Lake Sakakawea, such as a bridge, buried cable and pipelines including HDD pipelines.

    No

31. Will the project directly impact suitable piping plover nesting habitat?

    Note: Direct impacts include any off road vehicle access including use of mat roads, soil compaction, digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, vegetation management (including removal or maintenance using equipment or chemicals), cultivation, development, etc.)

    No

32. Will work be conducted within ½ mile of suitable piping plover nesting habitat.

    No

33. [Semantic] Does the action area intersect the Rufa Red Knot area of infuence?

    Automatically answered

    Yes

34. Will the project construction or other impacts occur between April 1-May 31 or between August 15-October 31?

    Yes

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Daniel DeJoode
Address: ERM
Address Line 2: 222 S 9th St., Suite 2900
City: Minneapolis
State: MN
Zip: 55402
Email daniel.dejoode@erm.com
Phone: 6128177587

From:	Johnson, Sandra K.
To:	Eddie Zedaker; Schumacher, John D.
Cc:	Miller, Bill P.; Maddy Krumwiede; Ariana Rodriguez
Subject:	RE: ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project
Date:	Tuesday, March 18, 2025 8:04:34 AM
Attachments:	image003.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png image011.png

EXTERNAL MESSAGE

Hi Eddie,
There are no known Bald or Golden Eagle nests within 0.5 mile of the project area.
Let me know if you have any other questions.
Thanks,
Sandy

Sandra Johnson
Conservation Biologist

(701) 328-6382 • sajohnson@nd.gov • gf.nd.gov

NORTH Dakota | Game and Fish
Be Legendary.

From: Eddie Zedaker <eddie.zedaker@erm.com>
Sent: Wednesday, March 12, 2025 10:29 AM
To: Schumacher, John D. <jdschumacher@nd.gov>; Johnson, Sandra K. <sajohnson@nd.gov>
Cc: Miller, Bill P. <Bill.Miller@oneok.com>; Maddy Krumwiede <maddy.krumwiede@erm.com>; Ariana Rodriguez <ariana.rodriguez@erm.com>
Subject: ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

From: Eddie Zedaker
Sent: Wednesday, March 12, 2025 9:57 AM
To: Schumacher, John D. <jdschumacher@nd.gov>; sajohnson@nd.gov
Cc: Miller, Bill P. <Bill.Miller@oneok.com>; Maddy Krumwiede <maddy.krumwiede@erm.com>; Ariana Rodriguez <ariana.rodriguez@erm.com>

Subject: ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Dear Mr. Schumacher and Ms. Johnson,

On behalf of ONEOK Bakken Pipeline, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Tioga Extension Project (Project). The Project involves constructing an approximate 7.6-mile-long, 6-inch-diameter natural gas liquids pipeline extending from the Silver Hill County Line Gas Plant to the ONEOK Tioga Lateral meter station within the Hess Tioga Plant in Williams County, North Dakota. Due to Project schedule, we are respectfully requesting a review of the materials within 30 days.
If you have any questions or need additional information, please contact Maddy Krumwiede of ERM at 612-347-7106 or maddy.krumwiede@erm.com, or Bill Miller of ONEOK at 612-257-3481 or Bill.Miller@oneok.com.

Sincerely,

ERM
Sustainability is our business

Eddie Zedaker
Managing Consultant, Capital Project Delivery

Mobile
(256) 872-5818

erm.com

P.S. I have uploaded the zipped shapefile to the secure transfer link provided by Mr. Schumacher.

NORTH Dakota | Parks & Recreation
Be Legendary.™

March 6, 2025

Bill Miller
ONEOK Inc.
100 West Fifth Street
Tulsa, OK 74103

Re: ONEOK Bakken Pipeline Tioga Extension Project

Dear Bill,

The North Dakota Parks and Recreation Department (NDPRD) has reviewed the above-referenced proposed construction of natural gas pipeline referred to as the Tioga Extension Project located on Willimas, North Dakota.

NDPRD's scope of authority and expertise covers properties that NDPRD owns, leases, or manages; properties protected under Section 6(f) of the Land and Water Conservation Fund (LWCF); rare plants; and ecological communities established through the Natural Heritage Program.

The project does not appear to affect properties NDPRD owns, leases, or manages positively.

The project does not appear to affect any properties protected under Section 6(f) of the LWCF.

A North Dakota Natural Heritage biological conservation database query determines if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, we have no known plant and animal species of concern or significant ecological communities documented within or immediately adjacent to the project site.

We appreciate your commitment to rare plant, animal, and ecological community conservation, management, and inter-agency cooperation. For additional information, please contact Kathy Duttenhefner at 701-328-5370, 701-220-3377 (cell), or kgduttenhefner@nd.gov.

Thank you for the opportunity to comment on the proposed project.

Sincerely,
Kathy Duttenhefner
Kathy Duttenhefner, Chief Natural Resources Division

604 E Boulevard Ave Dept. 750 | Bismarck, ND 58505
PHONE: 701-328-5357 | FAX: 701-328-5363 | EMAIL: parkrec@nd.gov | WEBSITE: www.parkrec.nd.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services

3425 Miriam Avenue
Bismarck, North Dakota 58501

IN REPLY REFER TO:2025-0030085 ONEOK Tioga Extension

April 2, 2025

Mr. Bill Miller
Environmental Project Manager
ONEOK Bakken Pipeline, LLC
100 West 5th Street #LI
Tulsa, Oklahoma 74103

Dear Mr. Miller:

Thank you for the opportunity to provide comment on the proposed ONEOK Bakken-Tioga Extension natural gas pipeline project in Williams County, North Dakota. The project would involve construction of a 6-inch, 7.6-mile-long pipeline from the Silver Hill County Line Gas Plant to the ONEOK lateral meter station within the Hess Tioga Plant. Since the pipeline is a transmission line, it would be under the jurisdiction of the ND Public Service Commission. The U.S. Fish and Wildlife Service (Service) offers the following comments which are discretionary for you to implement in accordance with the Endangered Species Act (ESA) (16 U.S.C. 1531 *et seq*.) and the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250).

We appreciate that ONEOK has designed the project to avoid impacts to listed species and has included proposed conservation measures to provide education for construction staff on whooping crane identification and to report all sightings within 1.0 mile of the project to the Service and to fence Dakota skipper suitable habitat prior to construction. Dakota skipper occupancy surveys and general pollinator surveys may be conducted at your discretion to document species in the project area; if surveys are conducted, a copy of the survey report sent to our office would help us continue to document the status of these species in North Dakota.

Based on the information presented and conservations measure commitments, the FWS does not expect this Project, as currently designed, will result in the incidental take of listed species under Section 9 of the ESA. We would be more than willing to discuss future changes to this project if they occur and work with you to help minimize potential impacts to listed species.

The FWS appreciates the opportunity to work with ONEOK and the ND Public Service Commission on our shared conservation goals. Should you have any questions regarding these comments, please have your staff contact Jerry Reinisch at (701) 425-2133 or contact Luke Toso at (720) 793-6797.

Sincerely,

Christopher Swanson
Field Supervisor
North and South Dakota Ecological Services

ATTACHMENT C

Supplemental Agency Correspondence

USFWS Wetland Management District

From: Williams, Scott A
To: Eddie Zedaker
Subject: Re: [EXTERNAL] ONEOK Tioga Extension
Date: Tuesday, June 24, 2025 10:24:00 AM
Attachments: image001.png
image002.png

EXTERNAL MESSAGE

Hi Eddie,

Looks great, thank you all the coordination on this project. It has been a pleasure working with you as well…

Take care,

S

Scott A. Williams
Wetland District Manager

Crosby Wetland Management District
United States Fish and Wildlife Service
10100 HWY 42 NW
Crosby, ND 58730

701.965.6488 Office
701.339.1450 Cell
701.965.6487 Fax

From: Eddie Zedaker <eddie.zedaker@erm.com>
Sent: Tuesday, June 24, 2025 10:18 AM
To: Williams, Scott A <Scott_A_Williams@fws.gov>
Subject: [EXTERNAL] ONEOK Tioga Extension

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Scott,
We appreciate you taking the time to meet up with our field team to review the wetland

boundaries within the USFWS easement for ONEOK's Tioga Extension pipeline project. Attached are the wetland boundary shapefiles within the USFWS easement that we field delineated within our survey corridor. The shapefile you provided was not much different than what was viewed in the field, but we wanted to make sure you had a field delineated boundary for your records.

It's been a pleasure working with you.
Thanks,

ERM
Sustainability is our business

Eddie Zedaker
Principal Consultant, Engineering

Mobile
(256) 872-5818

erm.com

USFWS North Dakota Field Office

From: Eddie Zedaker
To: Reinisch, Jerry D
Subject: ONEOK Tioga Extension Follow-Up
Date: Tuesday, June 24, 2025 4:24:00 PM
Attachments: image001.png
image002.png
Tioga_Skipper_Habitat.zip

Good Afternoon Jerry,

Thank you for taking the time to discuss the Tioga Extension project with respect to Dakota skipper on June 3, 2025. ONEOK will follow the direction provided in the USFWS response letter dated April 2, 2025 and fence off Dakota skipper habitat prior to construction to avoid impacts and will construct outside of the flight period. Attached is the field data collected by our crew led by Rustin Nordsven for delineated Dakota skipper habitat that will be avoided during construction. If you have any questions, feel free to give me a call.

We appreciate your attention to this project and look forward to working with you in the future.

ERM
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Eddie Zedaker
Principal Consultant, Engineering

Mobile
(256) 872-5818

erm.com

USDA Farm Service Agency

From:	Maddy Krumwiede
To:	Knudtson, Kristen - FPAC-FSA, ND
Cc:	Peterson, Beau - FPAC-FSA, ND; Heitkamp, Jessica - FPAC-FSA, ND; Miller, Bill P.; Eddie Zedaker; Ariana Rodriguez
Subject:	RE: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project
Date:	Friday, July 11, 2025 4:44:00 PM
Attachments:	ONE_Letter_Portrait_Aerial.pdf A2_ONE_TL_Avoidance_Exclusion.pdf image002.png image004.png image005.png

Kristen,

This is a courtesy email to notify you that the Tioga Extension Project has slight route modifications. The proposed modifications include shifts that are conducive to more efficient construction methods while avoiding environmentally sensitive areas. The attached figures provide you maps comparing the original and revised routes. Please note there has been no change in landowners being crossed for this project.

If you have any additional questions, please feel free to contact me.

Thank you,
Maddy

ERM
Sustainability is our business

Maddy Krumwiede
Consulting Director, Capital Project Delivery
She/Her/Hers

222 South 9th Street, Suite 2900
Minneapolis, MN 55402
1-612-347-7106
1-612-554-7169 (mobile)

erm.com

From: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Sent: Wednesday, April 30, 2025 6:01 PM
To: Maddy Krumwiede <maddy.krumwiede@erm.com>
Cc: Peterson, Beau - FPAC-FSA, ND <Beau.Peterson@usda.gov>; Heitkamp, Jessica - FPAC-FSA, ND <jessica.heitkamp@usda.gov>; Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Subject: RE: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Maddie –

After additional review and discussion, it has been determined that FSA has no additional comments on the project as outlined, however reserves the right to review any proposed route changes if they occur.

Kristen

Kristen Knudtson
Deputy State Executive Director
Acting Compliance Program Director
ND FSA State Office

USDA U.S. DEPARTMENT OF AGRICULTURE
ND Farm Service Agency
1025 28th St. S, Fargo ND 58103
p: (701) 893-2216 | c: (701) 990-2579

From: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Sent: Tuesday, April 15, 2025 11:07 AM
To: Peterson, Beau - FPAC-FSA, ND <Beau.Peterson@usda.gov>
Cc: Maddy Krumwiede <maddy.krumwiede@erm.com>; Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Subject: FW: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Beau –

Can you give Maddy a call regarding the environmental review needs for this request? She is looking for some information as to what is needed for the review to send to the National Office.

Her office phone is 612-347-7106.

Thank you!
Kristen

Kristen Knudtson
Deputy State Executive Director
Acting Compliance Program Director
ND FSA State Office

USDA U.S. DEPARTMENT OF AGRICULTURE
ND Farm Service Agency
1025 28th St. S, Fargo ND 58103
p: (701) 893-2216 | c: (701) 990-2579

From: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>

Sent: Wednesday, March 26, 2025 12:26 PM
To: Eddie Zedaker <eddie.zedaker@erm.com>
Cc: Maddy Krumwiede <maddy.krumwiede@erm.com>; bill.miller@oneok.com; Ariana Rodriguez <ariana.rodriguez@erm.com>; Laframboise, Brandi - FPAC-FSA, ND <brandi.laframboise@usda.gov>; Peterson, Beau - FPAC-FSA, ND <Beau.Peterson@usda.gov>; Awender, Karen - FPAC-FSA, ND <karen.awender@usda.gov>; Armstrong, Ashtyn - FPAC-FSA, ND <Ashtyn.Armstrong@usda.gov>; Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Subject: RE: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Eddie –

Thank you for the email below on additional details. Yes, our National Office would like to review the environmental permit as this project does impact our cropland and noncropland acreage which must follow Highly Erodible Land and Wetland compliance.

Kristen

Kristen Knudtson
Deputy State Executive Director
Acting Compliance Program Director
ND FSA State Office

USDA U.S. DEPARTMENT OF AGRICULTURE
ND Farm Service Agency
1025 28th St. S, Fargo ND 58103
p: (701) 893-2216 | c: (701) 990-2579

From: Eddie Zedaker <eddie.zedaker@erm.com>
Sent: Friday, March 21, 2025 12:39 PM
To: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Cc: Maddy Krumwiede <maddy.krumwiede@erm.com>; bill.miller@oneok.com; Ariana Rodriguez <ariana.rodriguez@erm.com>; Laframboise, Brandi - FPAC-FSA, ND <brandi.laframboise@usda.gov>; Peterson, Beau - FPAC-FSA, ND <Beau.Peterson@usda.gov>; Awender, Karen - FPAC-FSA, ND <karen.awender@usda.gov>; Armstrong, Ashtyn - FPAC-FSA, ND <Ashtyn.Armstrong@usda.gov>
Subject: RE: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Kristen,
Thank you for your response.

The proposed project will have no impacts in Section 30 Township 158 North Range 94 West.

Project impacts would be limited to a narrow corridor along the pipeline route. ONEOK studied a broader Project Study Area which is a 1-mile-wide corridor buffered from the pipeline project area to understand any adjacent constraints or opportunities including if any future route

deviations were needed. Section 30 Township 158 North Range 94 West is located within the Study Area, but outside of any planned project impact areas.

If no action is to occur within Section 30, would the FSA still like to see environmental permitting? All documents will be posted on the PSC docket.

Sincerely,

ERM
Sustainability is our business

Eddie Zedaker
Managing Consultant, Capital Project Delivery

Mobile
(256) 872-5818

erm.com

From: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Sent: Wednesday, March 19, 2025 3:22 PM
To: Ariana Rodriguez <ariana.rodriguez@erm.com>
Cc: Maddy Krumwiede <maddy.krumwiede@erm.com>; Eddie Zedaker <eddie.zedaker@erm.com>; bill.miller@oneok.com; Laframboise, Brandi - FPAC-FSA, ND <brandi.laframboise@usda.gov>; Peterson, Beau - FPAC-FSA, ND <Beau.Peterson@usda.gov>; Awender, Karen - FPAC-FSA, ND <karen.awender@usda.gov>; Armstrong, Ashtyn - FPAC-FSA, ND <Ashtyn.Armstrong@usda.gov>; Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Subject: RE: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

EXTERNAL MESSAGE

Ariana –

Thank you for providing the shapefiles to us for this project.

Based on the shapefile you provided, there may be one conservation reserve program (CRP) contract impacted. Your buffer zone of the "study area" crosses into a CRP contract in Section 30 Township 158 North Range 94 West. Can you please describe what activity will be occurring in your "study area" so that we can ensure the soil and grass for this CRP contract is not disturbed?

If the grass and/or soil is impacted, there will be implications on the CRP contract. At this time, I cannot provide you more details on the CRP contract itself without the producer's authorization.

Additionally, the FSA National Office would like to receive a copy of the Environmental Impact Study and any mitigation plan that may have been developed to ensure it meets FSA program requirements.

Thank you.
Kristen

Kristen Knudtson
Deputy State Executive Director
Acting Compliance Program Director
ND FSA State Office

U.S. DEPARTMENT OF AGRICULTURE
ND Farm Service Agency
1025 28th St. S, Fargo ND 58103
p: (701) 893-2216 | c: (701) 990-2579

From: Ariana Rodriguez <ariana.rodriguez@erm.com>
Sent: Thursday, February 20, 2025 5:55 PM
To: Knudtson, Kristen - FPAC-FSA, ND <kristen.knudtson@usda.gov>
Cc: Maddy Krumwiede <maddy.krumwiede@erm.com>; Eddie Zedaker <eddie.zedaker@erm.com>; bill.miller@oneok.com
Subject: [External Email]ONEOK Bakken Pipeline, L.L.C. - Tioga Extension Project

Dear Ms. Knudtson,

On behalf of ONEOK Bakken Pipeline, L.L.C. (ONEOK), please see the attached consultation letter requesting review of ONEOK's Tioga Extension Project (Project). The Project involves constructing an approximate 7.6-mile-long, 6-inch-diameter natural gas liquids pipeline extending from the Silver Hill County Line Gas Plant to the ONEOK Tioga Lateral meter station within the Hess Tioga Plant in Williams County, North Dakota. Due to Project schedule, we are respectfully requesting a review of the materials within 30 days.

If you have any questions or need additional information, please contact Maddy Krumwiede of ERM at 612-347-7106 or maddy.krumwiede@erm.com, or Bill Miller of ONEOK at 612-257-3481 or Bill.Miller@oneok.com.

Sincerely,

Ariana Rodriguez

Sustainability is our business

Consulting Senior Associate, Capital Project Delivery
She/Her/Hers

Minneapolis
810.241.9723

erm.com

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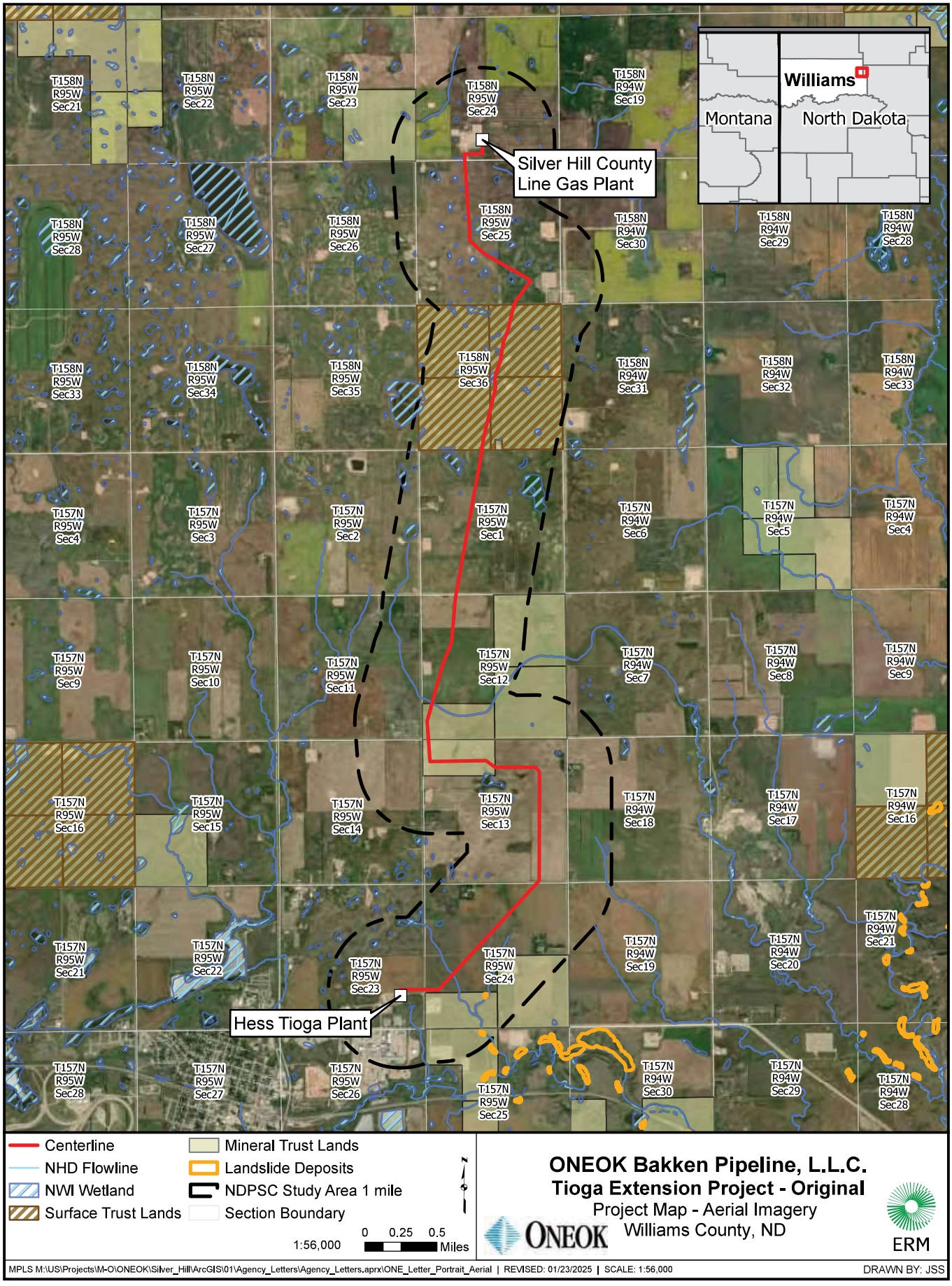
Williams
Montana
North Dakota
Silver Hill County Line Gas Plant
Hess Tioga Plant
T158N R95W Sec21
T158N R95W Sec22
T158N R95W Sec23
T158N R95W Sec24
T158N R94W Sec19
T158N R95W Sec28
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T158N R95W Sec26
T158N R95W Sec25
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T157N R95W Sec26
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T157N R94W Sec30
T157N R94W Sec29
T157N R94W Sec28
Centerline
NHD Flowline
NWI Wetland
Surface Trust Lands
Mineral Trust Lands
Landslide Deposits
NDPSC Study Area 1 mile
Section Boundary
N
1:56,000
0 0.25 0.5 Miles
ONEOK Bakken Pipeline, L.L.C.
Tioga Extension Project - Original
Project Map - Aerial Imagery
Williams County, ND
ONEOK
ERM
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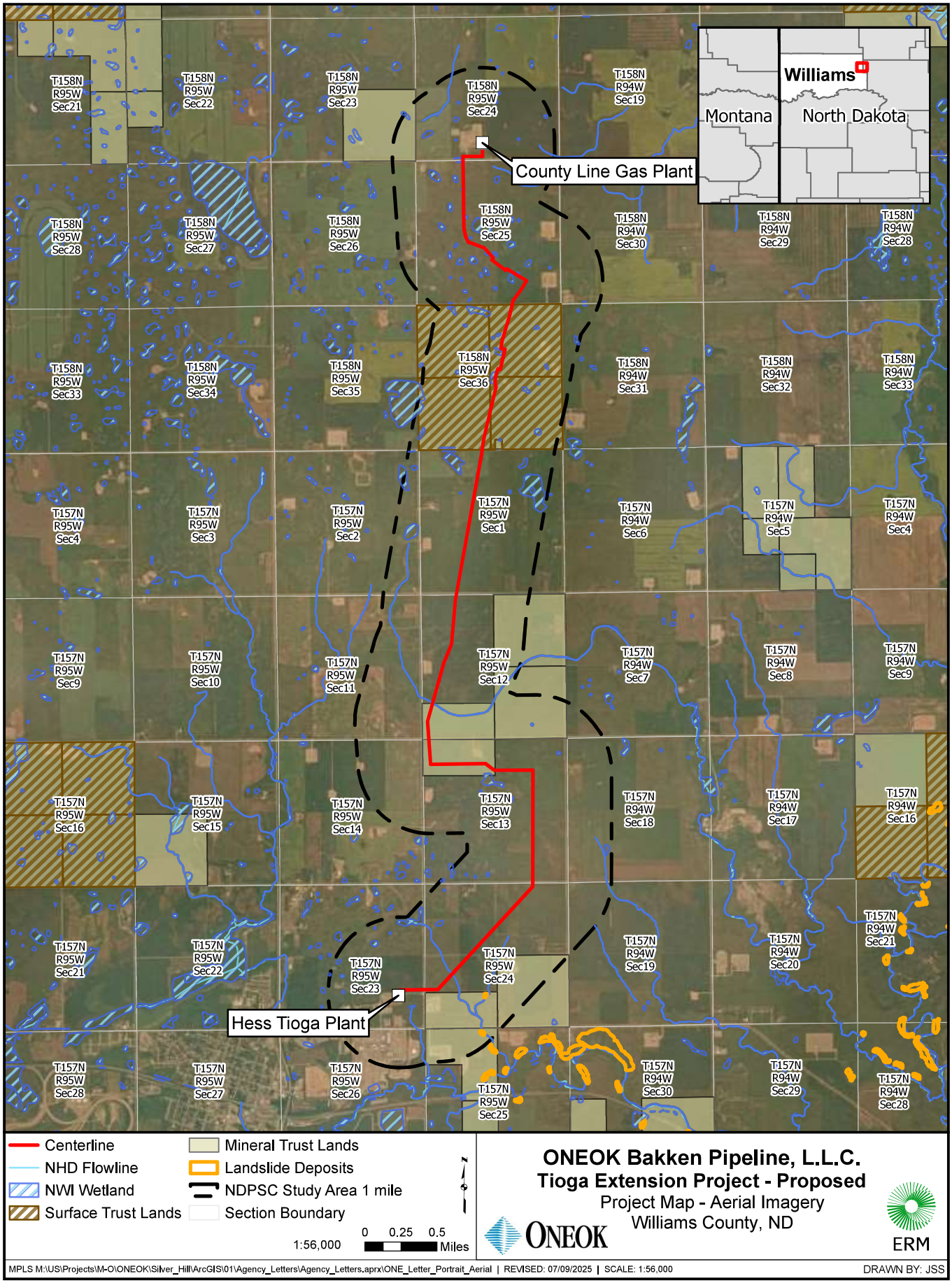
Williams
Montana
North Dakota
County Line Gas Plant
Hess Tioga Plant
T158N R95W Sec21
T158N R95W Sec22
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T158N R94W Sec19
T158N R95W Sec28
T158N R95W Sec27
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T157N R94W Sec29
T157N R94W Sec28
Centerline
NHD Flowline
NWI Wetland
Surface Trust Lands
Mineral Trust Lands
Landslide Deposits
NDPSC Study Area 1 mile
Section Boundary
N
1:56,000
0 0.25 0.5 Miles
ONEOK Bakken Pipeline, L.L.C.
Tioga Extension Project - Proposed
Project Map - Aerial Imagery
Williams County, ND
ONEOK
ERM
MPLS M:\US\Projects\M-O\ONEOK\Silver_Hill\ArcGIS\01\Agency_Letters\Agency_Letters.aprx\ONE_Letter_Portrait_Aerial | REVISED: 07/09/2025 | SCALE: 1:56,000
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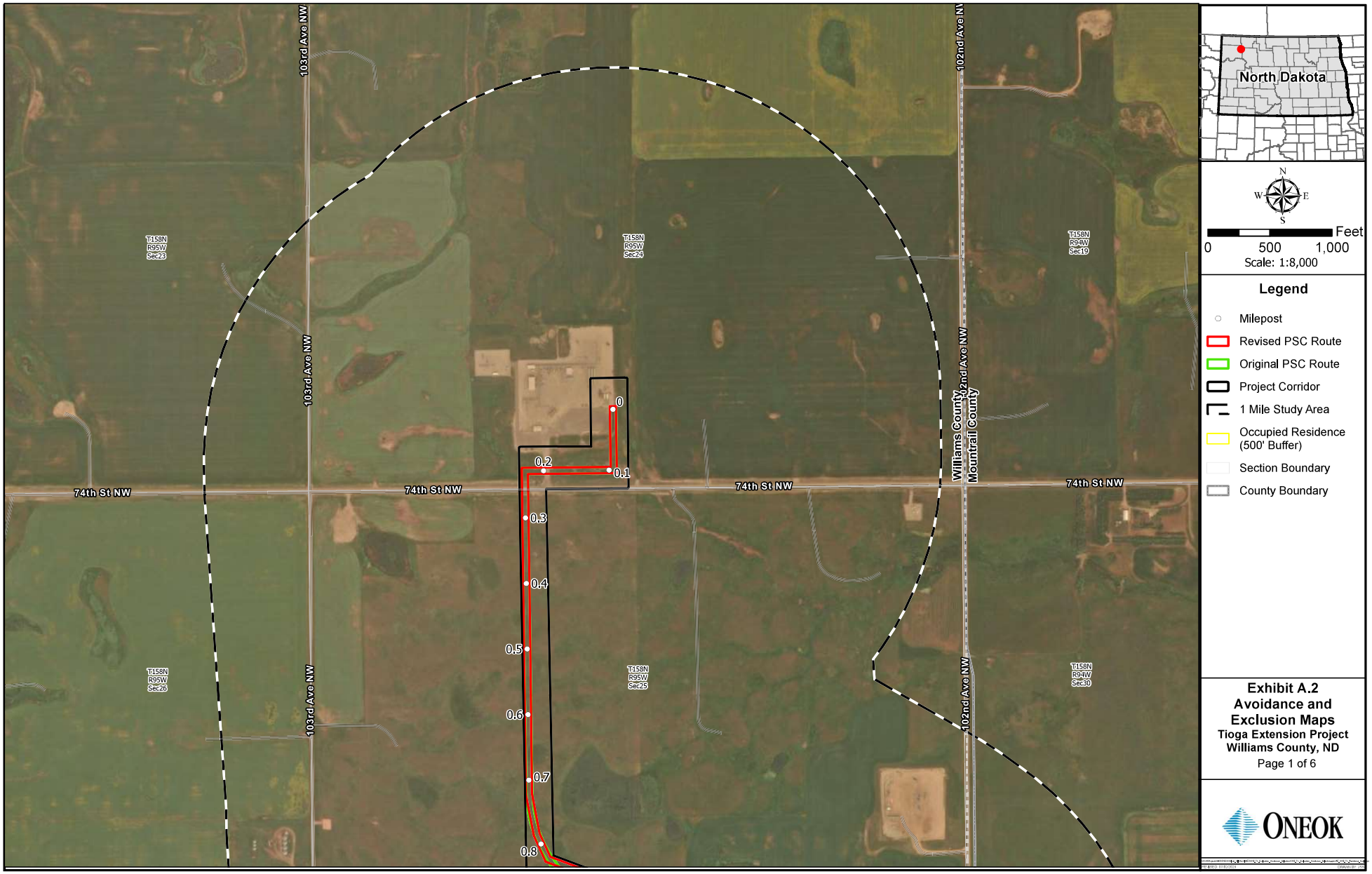


Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 1 of 6

ONEOK

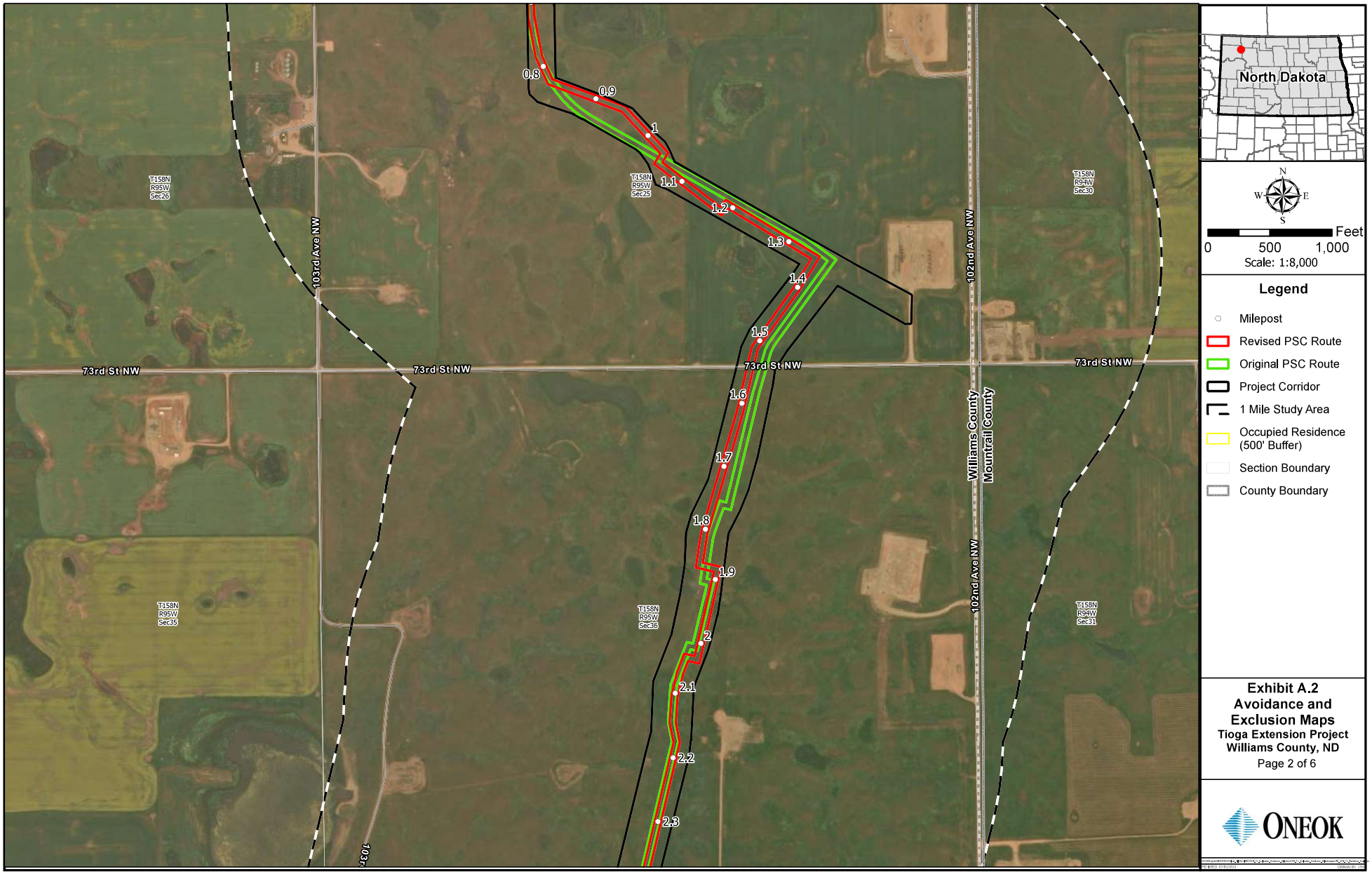
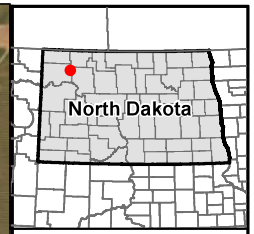


Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 2 of 6

ONEOK



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Legend

- Milepost
- Occupied Residence
- Revised PSC Route
- Original PSC Route
- Project Corridor
- 1 Mile Study Area
- Occupied Residence (500' Buffer)
- Section Boundary
- County Boundary

Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 3 of 6

ONEOK

Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 4 of 6

ONEOK

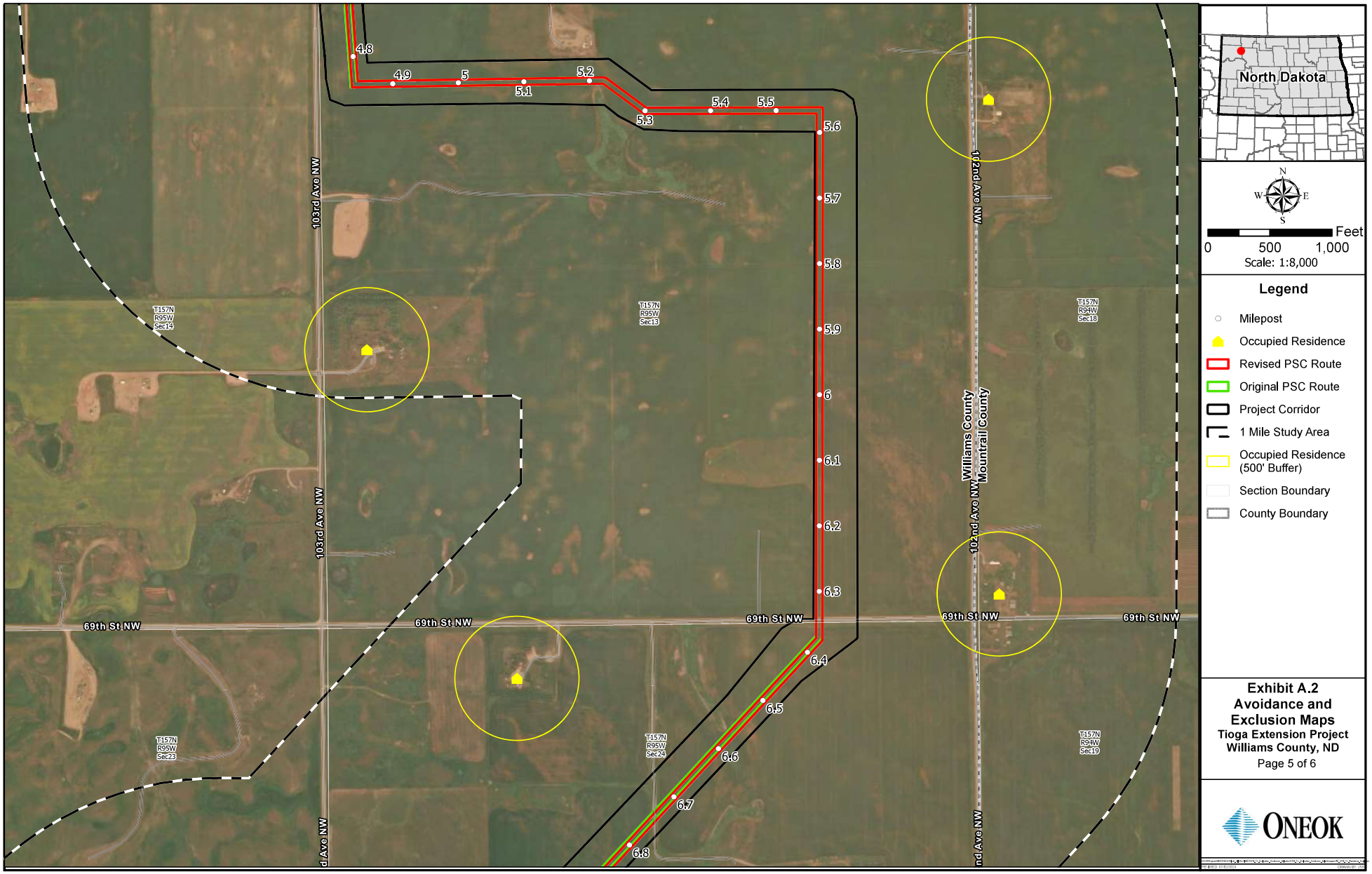
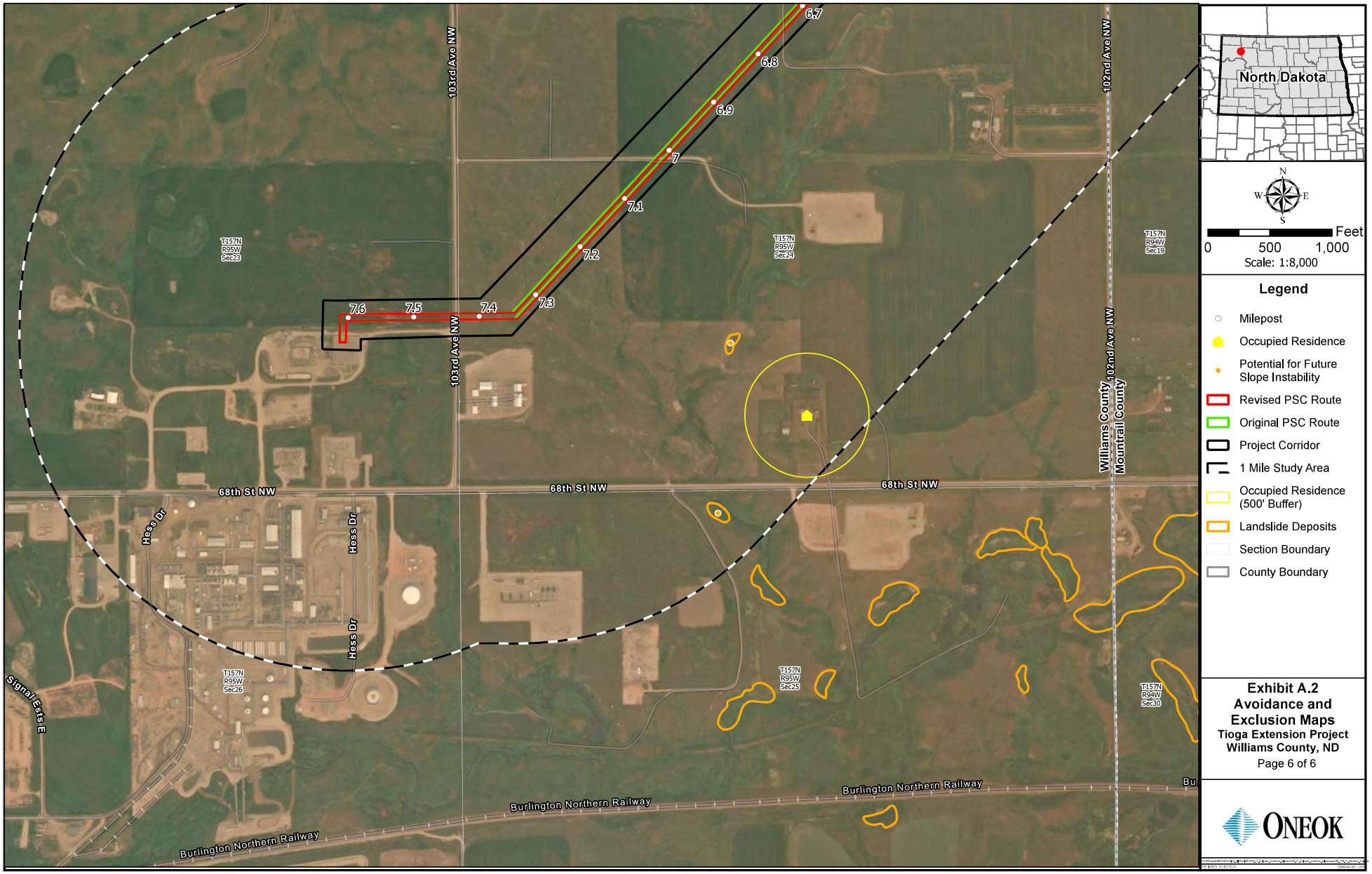


Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 5 of 6

ONEOK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103rd Ave NW
102nd Ave NW
68th St NW
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Williams County
Mountrail County
Signal Ests E
Burlington Northern Railway
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T157N R95W Sec24
T157N R94W Sec19
T157N R95W Sec26
T157N R95W Sec25
T157N R94W Sec30
North Dakota
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Scale: 1:8,000
Legend
Milepost
Occupied Residence
Potential for Future Slope Instability
Revised PSC Route
Original PSC Route
Project Corridor
1 Mile Study Area
Occupied Residence (500' Buffer)
Landslide Deposits
Section Boundary
County Boundary
Exhibit A.2
Avoidance and Exclusion Maps
Tioga Extension Project
Williams County, ND
Page 6 of 6
ONEOK

ATTACHMENT D

Crossing Permits

Tioga Township

Authorization To Bore Township Roads

Date 5-20-25

Tioga Township authorizes:

Oneok

to bore the following township roads

1. 69th St NW
2. 70th St NW
3. 71st ST NW
4. 72nd ST NW
5. 103 Ave

*Condition of roads must be left in acceptable condition upon completion of project.

*Cost is $1000.00 per bore.

Total Cost $5000.00

Clarence Stewart
Tioga Township Representative

Company Representative

October 3, 2007

RULES/REGULATIONS – LINDAHL TOWNSHIP

Due to previous damages we have incurred in our township, we have now decided to set some guidelines:

- Any company wanting to use our right-of-ways needs to contact a board member before they start their project, in order to obtain approval.
  (i.e.: Surveying, construction, etc...)

- Any damages on township property or personal property that are not fixed by the damaging party will be liable for a cost of:
  - $200.00 rod / all township property and personal property
  - $500.00 rod / on section lines

- We will charge $1000.00 per bore to cross any township line by any company for any reason.

Lindahl Township
Supervisor

Ms. Brenda Kutter
7769 106th Ave NW
Mcgregor, ND 58755-9587

INVOICE

Williams County Highway Dept
PO Box 1305
Williston, ND 58802-1305

Questions ? (701) 577-4521

Invoice Date	Invoice Number	Rev.
06/02/2025	2500242	0
Customer P.O. Number		
Reference		

Bill To :

ONEOK
896 25TH ST SE
SIDNEY, MT 59270

Attn: Accounts, Payable
Phone: Fax: **Project:** Undesignated

Qty	Unit	Product#	Description	Account Number	Unit Price	Extended	Tax	Freight
1.00	EA	Road Crossing Permit	Road Crossing Permit # 11-2-07-3188 (CR 12)	211.000.4740	250.0000	250.00	0.00	0.00

NOTES: Due upon receipt. Please remit payment to Williams County Highway Dept. Thank You!

Sub-Total:	250.00
Freight:	0.00
Tax:	0.00
Total Amount:	250.00

Williams COUNTY

PERMIT NO. 11-2-07-3188

COUNTY ROAD CROSSING PERMIT
FEE - $250.00 PER PERMIT

(PLEASE MAKE NO PAYMENT UNTIL YOU ARE NOTIFIED PERMIT IS APPROVED—PLEASE ALLOW 1 TO 2 WEEKS FOR APPROVAL)

The Williams County Board of County Commissioners, or its representative, hereby grants permission to ONEOK Rockies Midstream, L.L.C. (Applicant) whose address is 896 25th Street SE, Sidney, MT 59270 to bore (place or bore) a 6" Steel natural gas liquids (NGL) pipeline through the county road driving surface and across the drainage ditches and right-of-way of County Highway No. County Road 12 74th Street NW located between the following Township and Range sections:

Township 158N Range 95W Section(s) Section 24 SESW to Section 25 NENW

Lindahl

IF BORING IS REQUIRED, ANY APPLICANT, INDIVIDUAL OR COMPANY WHO "OPEN CUTS" OR OTHERWISE TRENCHES ACROSS THE SUBJECT ROAD OR ANY OTHER WILLIAMS COUNTY ROAD, INCLUDING SECTION LINE ROADS WITHIN WILLIAMS COUNTY, SHALL BE CHARGED AND PAY THE COUNTY A FEE OF $50,000.00. IF THIS FEE IS NOT PAID WITHIN TWENTY (20) CALENDAR DAYS AFTER WRITTEN NOTICE BY COUNTY, THE COUNTY SHALL HAVE THE RIGHT TO COLLECT THIS FEE IN ANY MANNER ALLOWED BY LAW, AND APPLICANT, INDIVIDUAL OR COMPANY, AS THE CASE MAY BE, SHALL BE RESPONSIBLE FOR ALL LEGAL FEES AND EXPENSES, COURT COSTS AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, INCURRED BY THE COUNTY IN COLLECTING SUCH FEE, WHETHER BY CIVIL ACTION OR OTHERWISE.

received 5/22/25 ED

Applicant shall be responsible to leave site in same condition as before crossing was made and repair any damages resulting from crossing. Each crossing **MUST** have a separate permit.

Applicant shall promptly remove said facilities from highway right-of-way, or shall relocate or adjust said facilities, at its sole cost and expense when requested to do so by the Board or their representative. The County shall not be held liable for damage to said facilities located within the public right-of-way resulting from reconstruction or maintenance of the highway.

Applicant shall mark crossing site with post and sign on each side of roadway. Signs shall be placed on County right-of-way line.

Please notify County Highway as to when work will start and finish, (701)577-4521. The contractor MUST have a copy of the permit and the cross section on site at all times.

ANY APPLICANT, INDIVIDUAL OR COMPANY DOING ROAD BORES OR PLACING ANY TYPE OF LINES WITHOUT A PERMIT WILL BE CHARGED A FEE OF $1,000.00 THE 1ST TIME THEY ARE WITHOUT A PERMIT, THE 2ND TIME, THE FEE WILL BE $5,000.00.

WHEN REQUESTED BY WILLIAMS COUNTY, THE OWNER OF THE PIPELINE MUST-AT THEIR EXPENSE-LOCATE AND EXPOSE THE UNDERGROUND UTILITY OR PIPELINE IN WILLIAMS COUNTY EASEMENT AREA.

THERE IS TO BE NO DISTURBANCE OF ANY KIND IN THE COUNTY RIGHT-OF-WAY.

Applicant, by signing below, acknowledges, understands, and agrees to the foregoing provisions and conditions.

DocuSigned by:
Tom Giltner
62CA78AA7B3B4EF...
Applicant

Williams County

By: Tom Giltner

Date: 6/2/25

Title: Manager - ROW Acquisitions ND & MT

Phone: 406-630-2664

Date: 05/15/2025

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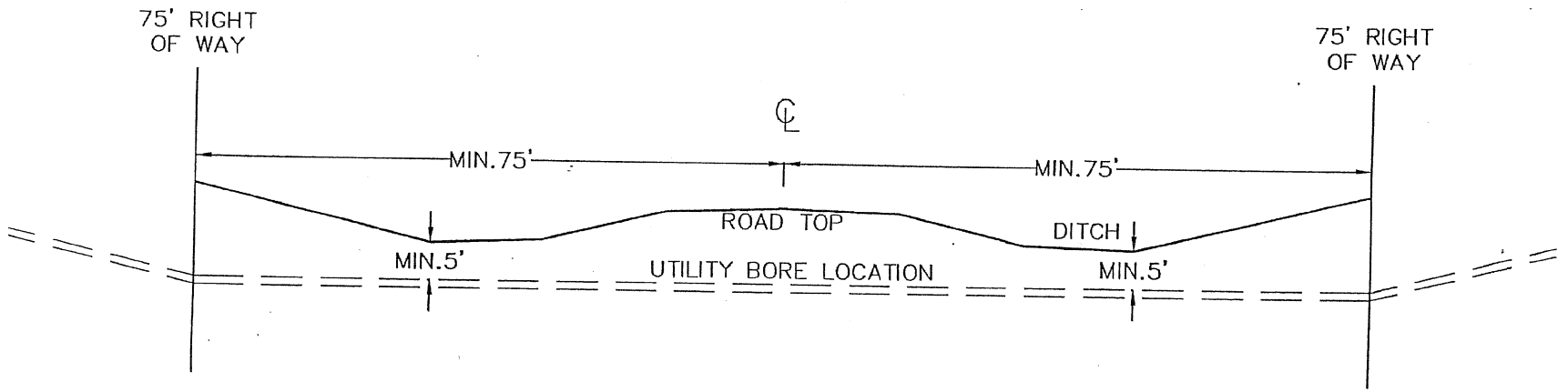

DETAIL NO.	Williams COUNTY	WILLIAMS COUNTY, NORTH DAKOTA	UTILITY CROSSING STANDARD DESIGN	REVISED 6/16/2014	N.T.S

R&T Water District
P.O Box 126 – 6392 114th Ave NW
Ray, ND 58849
701-568-3457 or 701-568-3422
rtwater@nccray.net

This Permit is not valid without the signature of R&T.

Approved by R&T John Lynch

Date 6/10/25

Work to Commence On _____

53.
CROSSING PERMIT
(Please Type or Print Clearly)
This Crossing Permit Request shall be completed in full and submitted at least twenty-one (21) calendar days prior to the date of anticipated work for the intended crossing.

One Call Ticket No. _____ One Call Info Attached (Y/N) _____

Company Name ONEOK Bakken Pipeline, LLC

Company Address 100 West 5th Street, Tulsa, OK 74103

Company Phone No. 918-588-7000 Company Fax No. _____

Person(s) Coordinating for Company Name John Laqua Phone No. 701-770-2166

Contractor Name TBD Phone No. _____

Line Being Crossed North Tioga as built Distribution (2" poly) WM-003055

Location of Work T158N-R95W Section 25: NENW

County Williams City/Town _____

Address _____

Street _____

Between Mile Post _____ and Mile Post _____

Nearest Cross Street approximately 75' South of 74th St NW (CR12) and 1,715' East of 103rd Ave NW

Township 158 North Range 95 West Quarter NENW

Tunneling (Y/N) _____ Boring (Y/N) Y Depth TBD

Type of Structure 6" Steel natural gas liquids (NGL) pipeline

Work Being Done Installaion of underground 6" steel natural gas liquids (NGL) pipeline

d. Your Company shall sand bed R&T's Line when buried if your Company disturbs any bedding.

e. Your Company shall expose R&T's Line to verify depth and location, which excavation shall only be completed using a hydrovac.

f. R&T's Line shall only be exposed for forty-eight (48) hours *and* even less if required by the weather, which determination is in the sole discretion of R&T.

g. Trenches exposing R&T's Line can only expose a maximum of five (5) feet.

h. All work over and above R&T's Line shall be completed and remediated within seven (7) days of completing the crossing.

4. Your Company shall pay for any modifications to R&T's Line that may be necessary or appropriate, as the same is determined in the sole discretion of R&T, including, but not limited to, lowering R&T's Line and using concrete caps.

5. Your Company shall pay for any and all damages to R&T's Line, including all appurtenances thereto. If your Company hits or otherwise damages R&T's Line, your Company shall pay $1,000.00 to R&T for each "hit" to R&T's Line and shall pay all expenses necessary to remedy the damage, including, but not limited to, labor, mileage, water loss, and supplies to repair R&T's Line, as such repairs are determined necessary or appropriate in the sole discretion of R&T. Your Company shall conduct repairs as quickly as possible in order to restore water to the customers of R&T as soon as possible.

6. Your Company shall indemnify, protect and save R&T harmless from any and all claims, demands, actions, and causes of action of whatsoever kind, for damage to or loss or destruction of property, loss of water, or for damage to or death of persons, caused by, or growing out of, or arising in connection with the construction, use, maintenance, removal or presence of the Structure, including indemnifying R&T for any contamination, any clean-up or any environmental claims or actions resulting from the activities of your Company.

7. Your Company, and anyone working for or on behalf of your Company, shall complete all of its work in a workmanlike manner in accordance with good engineering standards with due regard being given to the nature and purpose of R&T's Line.

8. Your Company, and anyone working for or on behalf of your Company, shall install such safety devices, and shall take such safety, protective, and precautionary measures, including protective devices, as required by governmental District, or as R&T shall reasonably require to protect R&T's Line and for the safety and protection of persons and property.

9. Your Company, and anyone working for or on behalf of your Company, shall comply all applicable laws, statutes, ordinances, and regulations, including, but not limited to, chapter 49.23-06 of the North Dakota Century Code.

10. Within thirty (30) days of completing the crossing of R&T's Line, your Company shall locate, survey, and deliver to R&T documentation of the crossing depth of the Structure, location of R&T's Line in relation to the crossing with the Structure, and a survey showing the same unless otherwise agreed to in writing by R&T.

R&T Water District
P.O Box 126 – 6392 114th Ave NW
Ray, ND 58849
701-568-3457 or 701-568-3422
rtwater@nccray.net

This Permit is not valid without the signature of R&T.

Approved by R&T John Lynch

Date 6/10/25

Work to Commence On _____

53.
CROSSING PERMIT
(Please Type or Print Clearly)

This Crossing Permit Request shall be completed in full and submitted at least twenty-one (21) calendar days prior to the date of anticipated work for the intended crossing.

One Call Ticket No. _____ One Call Info Attached (Y/N) _____

Company Name ONEOK Bakken Pipeline, LLC

Company Address 100 West 5th Street, Tulsa, OK 74103

Company Phone No. 918-588-7000 Company Fax No. _____

Person(s) Coordinating for Company Name John Laqua Phone No. 701-770-2166

Contractor Name TBD Phone No. _____

Line Being Crossed North Tioga as built Distribution (2" poly) WM-003054

Location of Work T158N-R95W Section 24: SESW

County Williams City/Town _____

Address _____

Street _____

Between Mile Post _____ and Mile Post _____

Nearest Cross Street approximately 210' north of 74th St NW (CR12) & 65' west of access road.

Township 158 North Range 95 West Quarter SESW

Tunneling (Y/N) _____ Boring (Y/N) Y Depth TBD

Type of Structure 6" Steel natural gas liquids (NGL) pipeline

Work Being Done Installaion of underground 6" steel natural gas liquids (NGL) pipeline

11. If the Structure is installed above R&T's Line (whether above or below the surface) and, due to R&T's operations, it becomes necessary for the Structure to be moved, relocated, raised, or lowered, your Company, upon written request from R&T, shall promptly cause such work to be completed at the sole expense of your Company. R&T shall make reasonable efforts to carry on its operations in such manner as to obviate any such request.

12. Your Company shall be liable to R&T for any information provided herein that is misleading, proves to be untrue or for any obligation that is not fulfilled as provided in this Agreement.

[SIGNATURE PAGE FOR CROSSING PERMIT & AGREEMENT]

Company/Owner ONEOK Bakken Pipeline, LLC Date 05/15/2025

By Tom Giltner, Manager - ROW Acquisitions ND & MT Phone No. 918-588-7000

Contractor TBD Date _____

By _____ Phone No. _____

ACCEPTED AND AGREED TO BY

Date: 05/15/2025

DocuSigned by:
Tom Giltner
62CA78AA7B3B4EF...

R&T WATER DISTRICT

By: _____

Its: _____

R&T Water District
P.O Box 126 – 6392 114th Ave NW
Ray, ND 58849
701-568-3457 or 701-568-3422
rtwater@nccray.net

This Permit is not valid without the signature of R&T.

Approved by R&T _____

Date 6/10/24

Work to Commence On _____

53.

CROSSING PERMIT

(Please Type or Print Clearly)

This Crossing Permit Request shall be completed in full and submitted at least twenty-one (21) calendar days prior to the date of anticipated work for the intended crossing.

One Call Ticket No. _____ One Call Info Attached (Y/N) N

Company Name ONEOK Bakken Pipeline, LLC

Company Address 100 West 5th Street, Tulsa, OK 74103

Company Phone No. 918-588-7000 Company Fax No. _____

Person(s) Coordinating for Company Name John Laqua Phone No. 701-770-2166

Contractor Name TBD Phone No. _____

Line Being Crossed North Tioga as built Distribution (2" poly) WM-002711

Location of Work T157-R95W Section 13: SENE

County Williams City/Town _____

Address _____

Street _____

Between Mile Post _____ and Mile Post _____

Nearest Cross Street approximately 2,650' South of 70th St NW &1,265' West of 102nd Ave NW

Township 157 North Range 95 West Quarter SENE

Tunneling (Y/N) _____ Boring (Y/N) Y Depth TBD

Type of Structure 6" Steel natural gas liquids (NGL) pipeline

Work Being Done Installaion of underground 6" steel natural gas liquids (NGL) pipeline

d. Your Company shall sand bed R&T's Line when buried if your Company disturbs any bedding.

e. Your Company shall expose R&T's Line to verify depth and location, which excavation shall only be completed using a hydrovac.

f. R&T's Line shall only be exposed for forty-eight (48) hours *and* even less if required by the weather, which determination is in the sole discretion of R&T.

g. Trenches exposing R&T's Line can only expose a maximum of five (5) feet.

h. All work over and above R&T's Line shall be completed and remediated within seven (7) days of completing the crossing.

4. Your Company shall pay for any modifications to R&T's Line that may be necessary or appropriate, as the same is determined in the sole discretion of R&T, including, but not limited to, lowering R&T's Line and using concrete caps.

5. Your Company shall pay for any and all damages to R&T's Line, including all appurtenances thereto. If your Company hits or otherwise damages R&T's Line, your Company shall pay $1,000.00 to R&T for each "hit" to R&T's Line and shall pay all expenses necessary to remedy the damage, including, but not limited to, labor, mileage, water loss, and supplies to repair R&T's Line, as such repairs are determined necessary or appropriate in the sole discretion of R&T. Your Company shall conduct repairs as quickly as possible in order to restore water to the customers of R&T as soon as possible.

6. Your Company shall indemnify, protect and save R&T harmless from any and all claims, demands, actions, and causes of action of whatsoever kind, for damage to or loss or destruction of property, loss of water, or for damage to or death of persons, caused by, or growing out of, or arising in connection with the construction, use, maintenance, removal or presence of the Structure, including indemnifying R&T for any contamination, any clean-up or any environmental claims or actions resulting from the activities of your Company.

7. Your Company, and anyone working for or on behalf of your Company, shall complete all of its work in a workmanlike manner in accordance with good engineering standards with due regard being given to the nature and purpose of R&T's Line.

8. Your Company, and anyone working for or on behalf of your Company, shall install such safety devices, and shall take such safety, protective, and precautionary measures, including protective devices, as required by governmental District, or as R&T shall reasonably require to protect R&T's Line and for the safety and protection of persons and property.

9. Your Company, and anyone working for or on behalf of your Company, shall comply all applicable laws, statutes, ordinances, and regulations, including, but not limited to, chapter 49.23-06 of the North Dakota Century Code.

10. Within thirty (30) days of completing the crossing of R&T's Line, your Company shall locate, survey, and deliver to R&T documentation of the crossing depth of the Structure, location of R&T's Line in relation to the crossing with the Structure, and a survey showing the same unless otherwise agreed to in writing by R&T.

R&T Water District
P.O Box 126 – 6392 114th Ave NW
Ray, ND 58849
701-568-3457 or 701-568-3422
rtwater@nccray.net

This Permit is not valid without the signature of R&T.

Approved by R&T John Lynch

Date 06/10/25

Work to Commence On _____

53.

CROSSING PERMIT

(Please Type or Print Clearly)

This Crossing Permit Request shall be completed in full and submitted at least twenty-one (21) calendar days prior to the date of anticipated work for the intended crossing.

One Call Ticket No. _____ One Call Info Attached (Y/N) N

Company Name ONEOK Bakken Pipeline, LLC

Company Address 100 West 5th Street, Tulsa, OK 74103

Company Phone No. 918-588-7000 Company Fax No. _____

Person(s) Coordinating for Company Name John Laqua Phone No. 701-770-2166

Contractor Name TBD Phone No. _____

Line Being Crossed North Tioga as built Distribution (2" poly) WM-002711

Location of Work T157-R95W Section 13: SENE

County Williams City/Town _____

Address _____

Street _____

Between Mile Post _____ and Mile Post _____

Nearest Cross Street approximately 2,650' South of 70th St NW &1,265' West of 102nd Ave NW

Township 157 North Range 95 West Quarter SENE

Tunneling (Y/N) _____ Boring (Y/N) Y Depth TBD

Type of Structure 6" Steel natural gas liquids (NGL) pipeline

Work Being Done Installaion of underground 6" steel natural gas liquids (NGL) pipeline

d. Your Company shall sand bed R&T's Line when buried if your Company disturbs any bedding.

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5. Your Company shall pay for any and all damages to R&T's Line, including all appurtenances thereto. If your Company hits or otherwise damages R&T's Line, your Company shall pay $1,000.00 to R&T for each "hit" to R&T's Line and shall pay all expenses necessary to remedy the damage, including, but not limited to, labor, mileage, water loss, and supplies to repair R&T's Line, as such repairs are determined necessary or appropriate in the sole discretion of R&T. Your Company shall conduct repairs as quickly as possible in order to restore water to the customers of R&T as soon as possible.

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9. Your Company, and anyone working for or on behalf of your Company, shall comply all applicable laws, statutes, ordinances, and regulations, including, but not limited to, chapter 49.23-06 of the North Dakota Century Code.

10. Within thirty (30) days of completing the crossing of R&T's Line, your Company shall locate, survey, and deliver to R&T documentation of the crossing depth of the Structure, location of R&T's Line in relation to the crossing with the Structure, and a survey showing the same unless otherwise agreed to in writing by R&T.