ONEOK BAKKEN PIPELINE, L.L.C.

Demicks Lake Pipeline Project

McKenzie County, North Dakota

North Dakota Public Service Commission

Consolidated Application for Certificate of Corridor Compatibility and Route Permit

November 2018

TABLE OF CONTENTS

REGULATORY CROSS-REFERENCE GUIDE ..... **vi**
ACRONYMS AND ABBREVIATIONS ..... **x**
INTRODUCTION **1**
1.0 SIZE AND TYPE OF FACILITY **2**
1.1 TYPE 2
1.2 SIZE 2
1.3 LENGTH 2
1.4 ABOVEGROUND FACILITIES 2
2.0 DESIGN OF THE FACILITY **3**
2.1 DESIGN OF PROPOSED FACILITY 3
2.2 PURPOSE AND NEED OF THE FACILITY 3
2.3 GENERAL AREA TO BE SERVED 4
2.4 CAPACITY 4
2.5 TECHNOLOGY TO BE DEPLOYED/EMPLOYED 4
2.6 TYPE OF PRODUCT TO BE TRANSMITTED 4
2.7 SOURCE OF PRODUCT TO BE TRANSMITTED 4
2.8 FINAL DESTINATION OF PRODUCT 4
2.9 WIDTH OF RIGHT-OF-WAY 4
2.10 REQUIREMENT FOR AND GENERAL LOCATION OF ANY NEW ASSOCIATED FACILITIES 5
2.11 ESTIMATED DISTANCE BETWEEN SURFACE STRUCTURES FOR PIPELINE FACILITIES 5
2.12 MAXIMUM DESIGN OPERATING PRESSURE AND TEMPERATURE FOR PIPELINE FACILITIES 6
2.13 MAXIMUM DESIGN FLOW RATE FOR PIPELINE FACILITIES 6
2.14 NUMBER AND GENERAL LOCATION FOR COMPRESSOR OR PUMPING STATIONS 6
2.15 ESTIMATED TOTAL COST OF CONSTRUCTION 6
2.16 PREFERRED LOCATION OF FACILITY 6
2.17 PREFERRED LOCATION OF CORRIDOR 7
2.18 DESCRIPTION OF ROW PREPARATION AND CONSTRUCTION AND RECLAMATION PROCEDURES 8
2.19 LANDOWNER NOTIFICATION, EASEMENT ACQUISITION, AND COMPENSATION 8
3.0 SCHEDULE **10**
3.1 OBTAINING CERTIFICATE OF CORRIDOR COMPATIBILITY 10
3.2 OBTAINING ROUTE PERMIT 10
3.3 COMPLETING ROW ACQUISITION 10
3.4 STARTING CONSTRUCTION 10
3.5 COMPLETING CONSTRUCTION 10
3.6 TESTING OPERATIONS 10
3.7 COMMENCING OPERATIONS 10
4.0 ALTERNATIVES **11**
4.1 ALTERNATIVES TO THE PROPOSED FACILITY 11
4.1.1 No Action Alternative 11
4.1.2 Truck Transportation Alternative 13
4.1.3 Rail Transportation Alternative 13
4.2 ROUTE/SEGMENT ALTERNATIVES 13
5.0 ENVIRONMENTAL STUDIES **15**
5.1 CULTURAL RESOURCE INVENTORY 15

5.2 WETLAND AND WATERBODY INVENTORY 16
5.3 WILDLIFE INVENTORY 17
5.3.1 Federally Protected Species Review 17
5.3.2 Migratory Bird Treaty Act 22
5.3.3 Bald and Golden Eagle Protection Act 22
5.3.4 Regional Forester Sensitive Species Surveys 23
5.4 TREE/SAPLING/SHRUB INVENTORY 23
5.5 NOXIOUS WEEDS INVENTORY 24
6.0 AGENCY NOTIFICATIONS AND PERMITTING 26
6.1 U.S. FOREST SERVICE 27
6.1.1 Biological Resources 28
6.1.2 Cultural Resources 28
6.2 U.S. FISH AND WILDLIFE SERVICE 29
6.2.1 Federally Protected Species Review 29
6.2.2 Migratory Bird Treaty Act 29
6.2.3 Bald and Golden Eagle Protection Act 29
6.2.4 Wetland and Grassland Easements 30
6.3 U.S. ARMY CORPS OF ENGINEERS 30
6.4 U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE 31
6.5 U.S. DEPARTMENT OF AGRICULTURE, FARM SERVICE AGENCY 31
6.6 U.S. DEPARTMENT OF DEFENSE 32
6.7 NORTH DAKOTA GAME AND FISH DEPARTMENT 32
6.8 NORTH DAKOTA PARKS AND RECREATION DEPARTMENT 32
6.9 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE 33
6.10 NORTH DAKOTA GEOLOGICAL SURVEY 33
6.11 NORTH DAKOTA DEPARTMENT OF HEALTH 33
6.12 NORTH DAKOTA STATE WATER COMMISSION 34
6.13 NORTH DAKOTA DEPARTMENT OF TRUST LANDS – SCHOOL TRUST LANDS 35
6.14 NORTH DAKOTA DEPARTMENT OF TRUST LANDS – MINERAL TRUST LANDS 36
6.15 WESTERN AREA WATER SUPPLY AUTHORITY 36
6.16 MCKENZIE COUNTY BOARD OF COMMISSIONERS 36
6.17 MCKENZIE COUNTY WATER RESOURCE BOARD 36
6.18 MCKENZIE COUNTY WEED CONTROL BOARD 37
7.0 CRITERIA 38
7.1 EXCLUSION AREAS 38
7.1.1 Federal Resource Review 39
7.1.2 State Resource Review 39
7.1.3 County Resource Review 39
7.1.4 Areas of Critical Habitat 40
7.1.5 Areas where Unique or Rare Species Rare to the State Would Be Irreversibly Damaged 40
7.1.6 Areas within 1,200 Feet of ICBM Facility or 30 Feet of Direct Line of Launch Facility 40
7.2 AVOIDANCE AREAS 40
7.2.1 Federal Resource Review 41
7.2.2 State Resource Review 41
7.2.3 Historical Resources Not Designated as Exclusion/Avoidance Areas 42
7.2.4 Geologically Unstable Areas 42

7.2.5 Areas within 500 Feet of a Residence, School, or Place of Business 42
7.2.6 Reservoirs and Municipal Water Supplies 42
7.2.7 Water Sources for Organized Rural Water Districts 42
7.2.8 Irrigated Land 42
7.2.9 Areas of Recreational Significance but Not Designated Exclusion Areas 42
7.3 SELECTION CRITERIA 42
7.3.1 Agricultural Impacts 43
7.3.2 Sound-Sensitive Land Uses 44
7.3.3 Visual Effect on Adjacent Areas 44
7.3.4 Extractive and Storage Resources 44
7.3.5 Wetlands, Woodlands, and Wooded Areas 44
7.3.6 Radio and TV Reception and Other Communication or Electronic Facilities 45
7.3.7 Human Health and Safety 45
7.3.8 Animal Health and Safety 45
7.3.9 Plant Life 46
7.4 POLICY CRITERIA 46
7.4.1 LOCATION AND DESIGN 46
7.4.2 TRAINING AND UTILIZATION OF IN-STATE LABOR 46
7.4.3 ECONOMIES OF CONSTRUCTION AND OPERATION 46
7.4.4 USE OF CITIZEN COORDINATING COMMITTEES 46
7.4.5 COMMITMENT OF PORTION OF TRANSMITTED PRODUCT FOR USE IN STATE 47
7.4.6 LABOR RELATIONS 47
7.4.7 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT 47
7.4.8 COORDINATION OF FACILITIES 47
7.4.9 MONITORING IMPACTS 47
7.4.10 USING EXISTING AND PROPOSED ROWS AND CORRIDORS 48
7.4.11 OTHER EXISTING OR PROPOSED TRANSMISSION FACILITIES 48
8.0 OTHER FACTORS CONSIDERED 49
8.1 PUBLIC HEALTH, WELFARE, NATURAL RESOURCES, AND THE ENVIRONMENT 49
8.2 TRANSMISSION TECHNOLOGIES AND SYSTEMS DESIGNED TO MINIMIZED ADVERSE ENVIRONMENTAL EFFECTS 49
8.3 BENEFICIAL USES OF WASTE ENERGY FROM A PROPOSED ENERGY CONVERSION FACILITY 49
8.4 UNAVOIDABLE ADVERSE DIRECT AND INDIRECT ENVIRONMENTAL EFFECTS 49
8.5 CORRIDOR OR ROUTE ALTERNATIVES DEVELOPED DURING THE HEARING THAT MINIMIZE ADVERSE EFFECTS 49
8.6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF NATURAL RESOURCES IF DESIGNATED 50
8.7 DIRECT AND INDIRECT ECONOMIC IMPACTS OF THE FACILITY 50
8.8 EXISTING PLANS FOR OTHER DEVELOPMENTS IN THE VICINITY 50
8.9 RECYCLING OF CONVERSION BYPRODUCTS AND EFFLUENTS 51
8.10 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT 51
8.11 ENERGY CONSERVATION THROUGH USE OF A PRIMARY ENERGY SOURCE OR RAW MATERIAL 51
8.12 NON-RELOCATION OF RESIDENTS 51
8.13 DEDICATION OF AN AREA ADJACENT TO THE FACILITY FOR LAND USE SUCH AS RECREATION, AGRICULTURE, OR WILDLIFE MANAGEMENT 51

8.14 SECONDARY USES OF APPROPRIATE ASSOCIATED FACILITIES FOR RECREATION AND THE ENHANCEMENT OF WILDLIFE 51
8.15 PROBLEMS RAISED BY FEDERAL, STATE, AND LOCAL AGENCIES 52
9.0 MITIGATION MEASURES 53
9.1 HUMAN ENVIRONMENT 54
9.2 TERRAIN AND GEOLOGICAL RESOURCES 54
9.3 SOILS 54
9.4 VEGETATION AND WILDLIFE 55
9.5 LAND USE 57
9.6 CULTURAL RESOURCES 57
10.0 DEVELOPMENT 59
10.1 AREAS OF KNOWN GEOLOGIC INSTABILITY 59
10.2 PRESENT AND FUTURE NATURAL RESOURCE DEVELOPMENT IN THE AREA 59
11.0 QUALIFICATIONS OF PREPARERS 60
12.0 BIBLIOGRAPHY 62

TABLES

Table 2.11-1 Location and Description of Aboveground Facilities 5
Table 2.16-1 Location Summary (North Dakota) 6
Table 5.2-1 Summary of Delineated Wetlands and Waterbodies 17
Table 5.3-1 Federally Listed Species in McKenzie County, ND 18
Table 5.5-1 State and County Listed Noxious Weeds 24
Table 6.0-1 Summary of Agency Notifications 26
Table 6.1-1 USFS-Managed Lands Crossed by Demicks Lake Pipeline 28
Table 6.13-1 NDDTL School Trust Lands in Proximity to Demicks Lake Pipeline 35
Table 6.14-1 NDDTL Mineral Trust Lands in Proximity to Demicks Lake Pipeline 36
Table 7.1-1 Exclusion Areas 38
Table 7.2-1 Avoidance Areas 40

FIGURES

Figure 4.1.1-1 North Dakota NGL Production Forecast 12

LIST OF EXHIBITS

Exhibit A: Engineering Documents
Exhibit B: Project Maps
- B.1 Project Overview
- B.2 Avoidance and Exclusion Maps
- B.3 Land Use/Land Cover Maps
- B.4 Selection Criteria (Other) Maps
- B.5 Black and White Map for Publication

Exhibit C: Natural Resource Survey Report
Exhibit D: Agency Consultations
Exhibit E: Landowner Waivers

REGULATORY CROSS-REFERENCE GUIDE

AUTHORITY	DESCRIPTION	SECTION(S)
Chapter 49-22	***CENTURY CODE – Title 49*** ***ENERGY CONVERSION AND TRANSMISSION FACILITY***	
49-22.1-06	Application for a Certificate for a Corridor	
1.a	Description of size and type of facility	1.0, 2.1
1.b	Summary of any studies of environmental impacts	5.0
1.c	Need for the facility	2.2
1.d	Site for energy conversion facility	N/A
1.e	Preferred transmission (pipeline) corridor	2.17, Exhibits B.2-B.4
1.f	Analysis of merits and detriments of facility location	4.1
1.g	Mitigating measures	9.0
1.h	Corridor evaluation pursuant to 49-22-09 and 49-22-05.1	7.0, 7.4.1, 8.0
1.i	Other relevant information	8.0
49-22.1-07	Application for Route Permit	
1.a	Description of size and type of facility	1.0, 2.1
1.b	Description of the location	1.0, 2.16, 2.17
1.c	Route evaluation relative to 49-22-09 and 49-22-05.1	7.0, 8.0
1.d	Mitigating measures	9.0
1.e	Right-of-way (ROW) preparation, construction, and reclamation	2.18
1.f	Statement identifying how: 1. Landowners informed of ROW acquisition 2. How landowners will be compensated	2.19
1.g	Other relevant information	8.0
49-22.1-09	Factors to be considered in evaluating corridor and route applications	
1	Research and investigation into effects of the project on public health, welfare, natural resources, and the environment	5.0, 7.1, 7.2, 7.3, 7.4.3, 7.4.7, 7.4.9, 8.1
2	Effects of transmission technology and design to minimize adverse effects	8.2
3	Potential beneficial uses of waste energy from energy conversion facility	8.3
4	Unavoidable adverse direct and indirect environmental effects	8.4
5	Corridor or route alternatives developed during the hearing which minimize adverse effects	8.5
6	Irreversible and irretrievable commitments of natural resources if designated	8.6
7	Direct and indirect economic impacts of the facility	8.7
8	Existing plans for other developments at or in the vicinity	8.8

AUTHORITY	DESCRIPTION	SECTION(S)
9	Effect of project on scenic areas, historic sites and structures, paleontological and archaeological sites	5.1, 6.7, 7.1
10	Effect of route on unique biological areas	5.2, 5.3, 6.1, 7.1.5
11	Problems raised by federal, state, or local entities	6.0, 8.15, Exhibit D
	ADMINISTRATIVE CODE - ARTICLE 69-06 ENERGY CONVERSION AND TRANSMISSION FACILITY SITING	
69-06-05-01	Application for a Transmission Facility Permit (Corridor Certificate)	
2.a.(1)	Type of facility proposed	1.0
2.a.(2)	Purpose of facility	2.2
2.a.(3)	Technology to be deployed	2.5
2.a.(4)	Type of product to be transmitted	2.6
2.a.(5)	Source of product being transmitted	2.7
2.a.(6)	Final destination of product being transmitted	2.8
2.a.(7)	Size and design detail and any alternative size and design	1.0, 2.1, 4.1, 4.2, Exhibit A
2.a.(7)(a)	The width of ROW	2.9
2.a.(7)(b)	The approximate length of facility	1.3
2.a.(7)(c)	The estimated span length for electric facilities	N/A
2.a.(7)(d)	The anticipated type of structure for electric facilities	N/A
2.a.(7)(e)	The voltage for electric facilities	N/A
2.a.(7)(f)	The requirement for and general location of any new associated facilities	2.10
2.a.(7)(g)	The estimated distance between pipeline surface structures	2.11
2.a.(7)(h)	The pipe size	1.2
2.a.(7)(i)	The maximum design for pipeline operating pressure and temperature	2.12
2.a.(7)(j)	The maximum design pipeline flow rate	2.13
2.a.(7)(k)	The number and general location of compressor or pumping stations	2.14
2.b.	Time schedule	3.0
2.b.(1)	Obtaining the certificate of corridor compatibility	3.1
2.b.(2)	Obtaining the route permit	3.2
2.b.(3)	Completing ROW acquisition	3.3
2.b.(4)	Starting construction	3.4
2.b.(5)	Completing construction	3.5
2.b.(6)	Testing operations	3.6
2.b.(7)	Commencing operations	3.7
2.c.	A copy of each evaluative study or assessment of the environmental impact of the proposed facility submitted to the agencies listed in section 69-06-01-05 and each response received	5.0, 6.0, Exhibits C and D
2.d.	Need for the facility	2.2

AUTHORITY	DESCRIPTION	SECTION(S)
2.e.	Description of alternatives	4.0
2.f.	Corridor width	2.17, 5.0
2.g.	Study area to enable the Commission to evaluate the factors in the Century Code section 49-22-09;	5.0
2.h.	Discussion of factors in Century Code 49-22-09 to aid Commission's evaluation	7.0, 8.0
2.i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of the board resolutions and management directives	7.4
2.j.	Map of criteria that led to route location	Exhibit B.2-B.4
2.k.	Discuss relative value of each criteria and how the location was selected; how operation will affect criteria	7.0
2.l.	Mitigating measures	9.0
2.m.	Qualifications of each person involved in location study	11.0
2.n.	Map identifying criteria that led to the route location and new facilities	Exhibit B.2-B.4
2.o.	8 1/2 X 11 black and white map suitable for newspaper publication	Exhibit B.5
2.p.	Discussion of present and future natural resource development in the area	1.0
2.q.	Maps and geographic information system (GIS) data meeting North Dakota Public Service Commission requirements	Exhibit B, electronic GIS data
69-06-08-02	Transmission Facility Corridor and Route Criteria	--
1	Exclusion areas	7.1
1.a.	Designated or registered national: parks, sites, landmarks, monuments, wilderness	7.1.1
1.b.	Designated or registered state: parks, sites, monuments, archeological sites, nature preserves	7.1.2
1.c.	County parks and recreational areas, municipal parks, parks owned or administered by other governmental subdivisions	7.1.3
1.d.	Areas of critical habitat	7.1.4
1.e.	Areas where unique or rare species would be irreversibly damaged	7.1.5
1.f.	Area within one thousand two hundred feet of Intercontinental Ballistic Missile (ICBM) facility	7.1.6
1.g.	Areas within thirty feet of direct line of ICBM launch facilities	7.1.6
2	Avoidance areas	7.2
2.a.	Designated or registered national: historic districts, wildlife areas, wild, scenic, or recreational rivers, wildlife refuges, grasslands	7.2.1
2.b.	Designated or registered state: wild, scenic, recreational rivers, game refuges, game management areas, forest management lands, grasslands	7.2.2
2.c.	Historical resources which are not specifically designated as exclusion or avoidance areas	7.2.3
2.d.	Areas which are geologically unstable	7.2.4

AUTHORITY	DESCRIPTION	SECTION(S)
2.e.	Within five hundred feet of a residence, school, or place of business	7.2.5
2.f.	Reservoirs and municipal water supplies	7.2.6
2.g.	Water sources for organized rural water districts	7.2.7
2.h.	Irrigated land (does not apply to underground transmission facility)	7.2.8
2.i.	Area of recreational significance but not designated exclusion areas	7.2.9
3	Selection criteria. Impact on:	7.3
3.a.(1)	Agricultural production	7.3.1
3.a.(2)	Family farms and ranches	7.3.1
3.a.(3)	Land economically suitable for irrigation	7.3.1
3.a.(4)	Surface drainage patterns and groundwater flow patterns	7.3.1
3.b.(1)	Sound sensitive land uses	7.3.2
3.b.(2)	Visual effect on adjacent area	7.3.3
3.b.(3)	Extractive and storage resources	7.3.4
3.b.(4)	Wetlands, woodlands, and wooded areas	7.3.5
3.b.(5)	Radio and TV reception and other communication or electronic facilities	7.3.6
3.b.(6)	Human health and safety	7.3.7
3.b.(7)	Animal health and safety	7.3.8
3.b.(8)	Plant life	7.3.9
4	Policy criteria	7.4
4.a.	Location and design	7.4.1
4.b.	Training and utilization of instate labor	7.4.2
4.c.	Economies of construction and operation	7.4.3
4.d.	Use of citizen coordinating committees	7.4.4
4.e.	Commitment of portion of transmitted product for use in state	7.4.5
4.f.	Labor relations	7.4.6
4.g.	Coordination of facilities	7.4.8
4.h.	Monitoring of impacts	7.4.9
4.i.	Using existing and proposed ROWs and corridors	7.4.10
4.j.	Other existing or proposed transmission facilities	7.4.11

ACRONYMS AND ABBREVIATIONS

API	American Petroleum Institute
BA	Biological Assessment
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
bpd	barrels per day
CFR	Code of Federal Regulations
CMRP	Construction Mitigation and Restoration Plan
CRP	Conservation Reserve Program
EA	Environmental Assessment
EI	Environmental Inspector
EO	Executive Order
ESA	Endangered Species Act
ETWS	Extra Temporary Workspace
F	degrees Fahrenheit
FSA	U.S. Department of Agriculture - Farm Service Agency
GIS	geographic information system
HDD	Horizontal Directional Drilling
ICBM	Intercontinental Ballistic Missile
IPaC	Information, Planning, and Conservation System
LMNG	Little Missouri National Grassland
MBTA	Migratory Bird Treaty Act
Merjent	Merjent, Inc.
MMcf/d	Million Cubic Feet per Day
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDA	North Dakota Department of Agriculture
NDDH	North Dakota Department of Health
NDDTL	North Dakota Department of Trust Lands
NDGFD	North Dakota Game and Fish Department
NDGS	North Dakota Geological Survey
NDIC	North Dakota Industrial Commission
NDPDES	North Dakota Pollution Discharge Elimination System
NDPRD	North Dakota Parks and Recreation Department
NDPSC	North Dakota Public Service Commission

NDR	North Dakota Rules
NDSWC	North Dakota State Water Commission
NEPA	National Environmental Policy Act
NGL	Natural Gas Liquid
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
NWR	National Wildlife Refuge
ONEOK	ONEOK Bakken Pipeline, L.L.C.
ORM	ONEOK Rockies Midstream, L.L.C.
OSE	Office of State Engineer
PCN	Pre-Construction Notification
Project	Demicks Lake Pipeline Project
psig	pounds per square inch gauge
RFSS	Regional Forester Sensitive Species
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOD	U.S. Department of Defense
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USNPS	U.S. National Park Service
UWYO	University of Wyoming
WAWSA	Western Area Water Supply Authority
WHPA	Wellhead Protection Area
WNS	White Nose Syndrome
WPA	Waterfowl Production Area
WRP	Wetland Reserve Program

INTRODUCTION

ONEOK Bakken Pipeline, L.L.C. (ONEOK), a wholly owned subsidiary of ONEOK, Inc., owns and operates natural gas liquids (NGLs) assets in North Dakota. ONEOK is proposing the Demicks Lake Pipeline Project (Project). The Project is a new, 20-inch-diameter steel NGL pipeline that would originate at the ONEOK Rockies Midstream, L.L.C.'s (ORM) Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota, and extend to the southwest to terminate in Richland County, Montana at a planned interconnection with a ONEOK affiliate planned pipeline.

The Project would be approximately 77 miles in length, 75 miles of which are located in North Dakota. Approximately 9 miles of the proposed route would cross the Little Missouri National Grassland (LMNG), which is administered through the U.S. Forest Service (USFS). Refer to the maps in Exhibit B for an overview of the Project.

ONEOK submits to the North Dakota Public Service Commission (NDPSC) a single consolidated application for a Certificate of Corridor Compatibility and Route Permit for the Project. The application provides the information required by:

- North Dakota Century Code (NDCC), Energy Conversion and Transmission Facility Siting Act, Chapter 49-22; and
- North Dakota Administrative Code (NDAC), Article 69-06, Energy Conversion and Transmission Facility Siting.

Construction activities are currently proposed to begin in February 2019 and be completed in the fourth quarter of 2019. Restoration activities may extend through 2022, if needed.

1.0 SIZE AND TYPE OF FACILITY

1.1 TYPE

The proposed Project is a Y-grade NGL transmission pipeline. The steel pipeline will meet applicable U.S. Department of Transportation (USDOT) regulations as outlined in 49 Code of Federal Regulations (CFR) Part 195.

1.2 SIZE

The Project pipeline specifications are the following:

- 20-inch outside diameter steel pipe
    - 0.344-inch wall thickness, Grade X-65 (standard)
    - 0.375-inch wall thickness, Grade X-65 (road crossings)
- Maximum operating pressure: 1,480 pounds per square inch gauge (psig)
- Maximum throughput: approximately 40,000 barrels per day (bpd)
- Maximum operating temperature: 120 degrees Fahrenheit (F)
- Normal operating conditions: 90 degrees F at 1,480 psig

1.3 LENGTH

In North Dakota, the Route is approximately 75 miles in length, approximately 9 miles of which would cross the LMNG, which is administered through the USFS. The total length of the Project is approximately 77.1 miles. In North Dakota, approximately 70 percent of the Route is co-located with existing linear infrastructure.

1.4 ABOVEGROUND FACILITIES

In North Dakota, the Project will include seven mainline block valves, one pig launcher facility, and one pig launcher and receiver facility. The block valves will be installed in accordance with applicable USDOT regulations. Block valves allow for the isolation of select pipeline segments for inspection and maintenance purposes or in the event of a system failure. The launcher and receiver facilities will facilitate the introduction of in-line tools for the performance of functions varying from cleaning to integrity monitoring. Refer to Exhibit A for engineering documents.

2.0 DESIGN OF THE FACILITY

2.1 DESIGN OF PROPOSED FACILITY

In North Dakota, the Project design includes approximately 75 miles of 20-inch-diameter steel pipeline and associated valves, launchers, and receivers as described in Section 1.4. Please see Exhibit A for engineering documents.

The pipeline will be manufactured according to American Petroleum Institute (API) Specifications API 5L Seamless Line Pipe and will meet International Organization for Standardization 3183 and applicable USDOT regulations outlined in 49 CFR part 195.

2.2 PURPOSE AND NEED OF THE FACILITY

The purpose of the Project is to provide take-away capacity for Y-grade NGLs (a mixture of ethane, propane, butanes, iso-butane mix, pentanes, and natural gasoline) produced at ORM's Demicks Lake Natural Gas Processing Plant (NDPSC Docket PU-14-764). Construction of the proposed Project would provide firm, reliable service of 40,000 barrels of NGLs per day and would provide the critical link between the Demicks Lake Natural Gas Processing Plant and NGL pipeline system(s) for delivery to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets.

Technological advances in drilling and completion associated with horizontal wells currently employed in the Bakken Shale and Three Forks formations of the Williston Basin has dramatically increased hydrocarbon production in the area. Producers remain active in the region creating demand for natural gas gathering infrastructure. Average daily natural gas production in North Dakota is currently estimated to be approximately 2,100 million cubic feet per day (MMcf/D) (Kringstad, 2018). See Section 4.1.1 for more information.

The increased production of oil and natural gas products continues to be constrained by the available infrastructure take-away capacity. While near term demands associated with increased crude oil production can be readily addressed with the installation of tankage for temporary storage coupled with additional trucking or rail capacity to bring it to market, the associated natural gas production is typically lost to flaring until the required infrastructure is placed into service.

As of July 2016, approximately 10 percent of gas produced was being flared (North Dakota Pipeline Authority, 2017). To continue to meet gas capture goals, infrastructure needs to be added to accommodate active drilling activities in North Dakota. The requisite infrastructure includes gathering systems and gas processing to refine the raw feedstock into commercial products. The function of the gas processing plant is to separate commercial grade methane (i.e., natural gas) from NGLs such as butane, propane, and ethane, and in turn prepare these products for delivery.

A major constraint in transporting NGLs and other hydrocarbons from North Dakota to processing/distribution centers and eventual end users in the United States is the lack of pipeline capacity. To relieve the pipeline constraints, several projects have been planned to address the growing volumes of natural gas, NGLs, and other hydrocarbons. However, pipeline capacity is not expected to keep pace with production, leaving incremental volumes to find alternative transportation methods, primarily rail or other surface transportation alternatives.

2.3 GENERAL AREA TO BE SERVED

The Project will allow for the delivery of additional NGLs from the Bakken and Three Forks production areas to facilities in the in the Mid-Continent and Gulf Coast for additional processing of the raw feedstock into commercial products prior to distribution to various markets to meet the existing need for agriculture and the petrochemical and plastics industries, as well as for refining and home heating throughout the U.S.

2.4 CAPACITY

The Project could transport up to 40,000 bpd.

2.5 TECHNOLOGY TO BE DEPLOYED/EMPLOYED

The Project will be designed, constructed, maintained, and inspected to the USDOT Pipeline and Hazardous Materials Safety Administration regulations utilizing industry standards and company policies. The system will be monitored 24 hours a day, 7 days a week, and 365 days a year by trained controls personnel. Additionally, the system is set up with a monitoring and alarm system that continuously monitors the flow and pressure of the system and readily signifies anything outside normal operating conditions.

2.6 TYPE OF PRODUCT TO BE TRANSMITTED

The Project will transport Y-grade NGLs, which are a mixture of ethane, propane, butanes, iso-butane mix, pentanes, and natural gasoline.

2.7 SOURCE OF PRODUCT TO BE TRANSMITTED

The anticipated sources of the NGLs are formations in the Williston Basin.

2.8 FINAL DESTINATION OF PRODUCT

NGLs will be shipped out of North Dakota via the Project and will connect with other NGL pipeline systems to transport the NGLs to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets.

2.9 WIDTH OF RIGHT-OF-WAY

On private land, the temporary construction ROW would be 75 feet wide, of which 50 feet would remain as permanent ROW. On USFS lands, the temporary construction ROW would be 50 feet wide, of which 20 feet would remain as permanent ROW. Where collocated, the proposed pipeline would generally be installed 20 feet offset from existing pipelines with the workspace located adjacent to the existing pipeline permanent easements.

In addition to the pipeline temporary construction ROW, extra temporary workspace (ETWS) would typically be required adjacent to crossings of roadways, railroads, waterbodies, wetlands, or other utilities, HDD pipe fabrication areas, areas requiring additional trench depth or spoil storage areas, certain

pipe bend locations, locations with soil stability concerns or side slope construction, truck turnarounds or equipment passing lanes, and hydrostatic test water withdrawal and discharge locations and water impoundment structures. Most ETWS for the project would add 25 feet to the width of construction ROW.

ONEOK will generally maintain its permanent easement along the entire length of the Project except as restricted by environmental conditions, foreign lines, and landowner agreements. This ROW will be reclaimed to near its pre-existing use once construction is complete.

2.10 REQUIREMENT FOR AND GENERAL LOCATION OF ANY NEW ASSOCIATED FACILITIES

In North Dakota, the Project will include seven mainline block valves, one pig launcher facility, and one pig launcher and receiver facility. The block valves would be installed in accordance with applicable USDOT regulations. Block valves allow for the isolation of select pipeline segments for inspection and maintenance purposes or in the event of a system failure. The pig launcher and receiver facilities would facilitate the introduction of in-line tools for the performance of functions varying from cleaning to integrity monitoring. Refer to Exhibit A for engineering plans.

2.11 ESTIMATED DISTANCE BETWEEN SURFACE STRUCTURES FOR PIPELINE FACILITIES

A description of surface structures to be developed for the Project is provided in Sections 1.4 and 2.10 of this application. The location of the mainline block valves will be finalized upon evaluation of maintenance and safety requirements but are currently planned at the locations listed in Table 2.11-1 below. Approximate locations of the block valves and launcher/receivers are displayed on the figures in Exhibit B.2 – B.4.

Table 2.11-1
Location and Description of Aboveground Facilities

Type	Description	Section	Township	Range
Trap[1]	Launcher	20	151N	96W
Trap[1]	Launcher/Receiver	35	151N	98W
Mainline valve	20-inch valve	1	150N	99W
Mainline valve	20-inch valve	1	149N	100W
Mainline valve	20-inch valve	8	149N	100W
Mainline valve	20-inch valve	3	148N	102W
Mainline valve	20-inch valve	23	148N	103W
Mainline valve	20-inch valve	7	147N	103W
Mainline valve	20-inch valve	2	146N	104W

[1] Located within existing Plant Facilities

2.12 MAXIMUM DESIGN OPERATING PRESSURE AND TEMPERATURE FOR PIPELINE FACILITIES

The maximum operating pressure for the pipeline is 1,480 psig and the maximum operating temperature is 120 degrees F. Under normal operating conditions the pipeline will operate at a summertime temperature of 90 degrees F and 1,480 psig.

2.13 MAXIMUM DESIGN FLOW RATE FOR PIPELINE FACILITIES

The Project could transport up to 40,000 bpd. Refer to Sections 1.2 and 2.4.

2.14 NUMBER AND GENERAL LOCATION FOR COMPRESSOR OR PUMPING STATIONS

No new compression or pumping stations will be required for this Project.

2.15 ESTIMATED TOTAL COST OF CONSTRUCTION

ONEOK will invest approximately $125 million in North Dakota to develop this Project. Once constructed and in-service, the continued costs of maintenance and operation of the proposed pipeline are relatively minimal.

2.16 PREFERRED LOCATION OF FACILITY

In North Dakota, the Project will be located entirely in McKenzie County, North Dakota, originating at the Demicks Lake Natural Gas Processing Plant in Township 151N, Range 96W, Section 20 (McKenzie County) moving generally south and west, and terminating in Township 19N, Range 60E, Section 3 in Richland County, Montana at a planned interconnection with another NGL pipeline currently under development by a ONEOK affiliate. Approximately 2 miles of the pipeline will be located in Montana. In North Dakota, the proposed Project is approximately 75 miles in length of which 52 miles (approximately 70 percent) will be co-located with existing pipeline corridors. Project location maps that depict the pipeline route are provided in Exhibit B. The Townships, Ranges, and Sections crossed by the Project route in North Dakota are presented in the following table:

Table 2.16-1
Location Summary (North Dakota)

Township	Range	Section(s) Crossed by Route
146 North	104 West	2, 3, 7-11
146 North	105 West	12-15, 22
147 North	103 West	5-7, 18
147 North	104 West	12, 13, 24-26, 35
148 North	102 West	2-6, 9
148 North	103 West	1, 12-14, 23, 26, 27, 32-34
149 North	99 West	4-6

Table 2.16-1 Location Summary (North Dakota)		
Township	**Range**	**Section(s) Crossed by Route**
149 North	100 West	1, 2, 8-11, 17-19
149 North	101 West	23, 24, 26-28, 32, 33
150 North	98 West	6
150 North	99 West	1, 11, 12, 14, 22, 23, 27, 28, 33
151 North	96 West	7, 17, 18, 20
151 North	97 West	12-14, 20, 21, 23, 26-30
151 North	98 West	25, 31-36336

2.17 PREFERRED LOCATION OF CORRIDOR

ONEOK and its affiliates own and operate several assets throughout the region. The operation of these assets is conducted in a manner to maximize the overall value of the NGLs, which benefits regional stakeholders (i.e., producers, royalty owners, and the State) through direct payments and tax revenues. The Project Corridor described in this application provides ONEOK with the opportunity to utilize existing pipeline corridors and minimize landowner and environmental impacts. ONEOK requests that the Corridor described in this application be certificated by the NDPSC.

Selection of the proposed Corridor and Route entailed a program which evaluated several geographic information system (GIS) data layers for the Project area. Information relative to high consequence areas (e.g., populated areas, wetlands, waterbodies, areas of cultural significance or high probability, public lands) and other unfavorable constructability or operational features were evaluated in an attempt to avoid and minimize proximity and potential impacts to these features. Features for favorable constructability or operations, such as existing ROWs (e.g., pipelines, roads, railways, power lines), were also evaluated to maximize co-location.

After selection of a preliminary location for routing the pipeline, ONEOK also developed a one-mile-wide study area for analysis and agency consultation (see Section 6 for more detail). The shortest route that accomplished the desired impact avoidance and minimization while maximizing collocation efforts served as the baseline for developing the proposed study area, Corridor, and Route. This baseline was then evaluated for environmental, engineering, construction, and ROW considerations for further optimization.

ONEOK worked with engineering and environmental firms to develop and refine the Route and Corridor within the study area. Environmental field surveys were conducted within an approximately 300-foot-wide survey corridor, generally centered on the pipeline route, to identify sensitive resources and to further refine the route. The Corridor described in this application follows the proposed Route along a 300-foot-wide corridor where environmental surveys were conducted. Several factors went into consideration in selecting the pipeline route, including:

- Human – choosing a route that minimizes impacts and ensures public safety;
- Environmental – choosing a route that minimizes disturbances to biological and cultural resources; and

- Constructability – considering terrain and obstacles such as roads, waterbodies, and other utilities to achieve safe and efficient construction.

The location of the Project Corridor and Route is depicted on the aerial maps in Exhibits B.2-B.4.

2.18 DESCRIPTION OF ROW PREPARATION AND CONSTRUCTION AND RECLAMATION PROCEDURES

Pipeline construction occurs in a linear fashion and, at any one time during the Project, any of the following activities may occur. The typical sequence of construction activities for the Project is as follows:

- Staking the workspace boundaries and utilities;
- Clearing of construction area;
- Installing temporary erosion and sediment controls;
- Grading and stump removal, if necessary;
- Segregation of topsoil, where necessary;
- Pipe delivery, bending, and welding;
- Trenching;
- Pipe installation;
- Backfilling excavations;
- Cleanup and final grading;
- Soil compaction treatment, where necessary;
- Stone removal, where necessary;
- Final restoration; and
- Upon final stabilization, removal of temporary erosion and sediment controls.

Rough and final grading includes restoring disturbed areas as near as practicable to preconstruction conditions, returning the topsoil where topsoil has been stripped, preparing a seedbed (where applicable) for permanent seeding, installing, or repairing temporary erosion and sediment control measures, repairing/replacing fences, and installing permanent erosion and sediment controls. Pre-existing landowner soil conservation improvements and structures disturbed by pipeline construction will be restored to the approximate pre-construction line and grade.

ONEOK will develop a Revegetation Plan for the Project to provide procedures to be followed during the revegetation of areas disturbed as a result of construction. In areas of cultivated cropland, the land will be returned to its original land use as soon as practical following construction. Additionally, ONEOK will comply with applicable permit conditions and landowner agreements.

2.19 LANDOWNER NOTIFICATION, EASEMENT ACQUISITION, AND COMPENSATION

Prior to conducting field surveys, ONEOK reviewed courthouse records for the purpose of identifying current landowners along the route. ONEOK contacted landowners to introduce the Project and to obtain permission to conduct surveys. ONEOK is in the process of negotiating easement agreements with landowners to give the company the right to construct, operate, and maintain the pipeline along a specified portion or corridor of each landowner's property in return for monetary compensation. ONEOK will obtain a permanent pipeline easement with an additional temporary easement during construction.

When applicable, ONEOK will offer additional compensation for damages resulting from pipeline construction, such as the loss of crops.

The refinement of the route includes adjustments made per landowner request. ONEOK, at all times, negotiates in good faith and necessary easement conditions and restrictions are presented and discussed.

3.0 SCHEDULE

3.1 OBTAINING CERTIFICATE OF CORRIDOR COMPATIBILITY

ONEOK seeks a Certificate of Corridor Compatibility by or before February 15, 2019.

3.2 OBTAINING ROUTE PERMIT

ONEOK seeks a Route Permit by or before February 15, 2019.

3.3 COMPLETING ROW ACQUISITION

ONEOK anticipates completing ROW acquisition in November 2018.

3.4 STARTING CONSTRUCTION

ONEOK plans to begin construction on the Project upon receipt of regulatory approval and applicable permits in February 2019. As noted previously, a portion of the route is located on the LMNG managed by the USFS. ONEOK is working with the USFS on obtaining a Special Use Permit to construct on the LMNG. Based on an August 7, 2018 meeting with NDPSC staff, ONEOK understands that construction of the Project on non-LMNG lands may begin after the NDPSC Order is issued, even if the USFS Special Use Permit is still pending (NDPSC, 2018).

3.5 COMPLETING CONSTRUCTION

Completion of construction is anticipated to occur in the fourth quarter of 2019.

3.6 TESTING OPERATIONS

Testing of the pipeline and facilities is expected to be conducted in the fourth quarter of 2019.

3.7 COMMENCING OPERATIONS

The in-service date for the Project is anticipated to be in the fourth quarter of 2019.

4.0 ALTERNATIVES

4.1 ALTERNATIVES TO THE PROPOSED FACILITY

Construction of the proposed Project will provide firm, reliable service for 40,000 bpd of NGL take-away capacity from the Demicks Lake Natural Gas Processing Plant, which is currently under construction. The products will be delivered to the Mid-Continent and Gulf Coast for additional processing. ONEOK identified and evaluated several Project alternatives; however, none of these alternatives effectively satisfied the Project objective. These alternatives included:

- No Action Alternative;
- Trucking Transportation Alternative; and
- Rail Transportation Alternative.

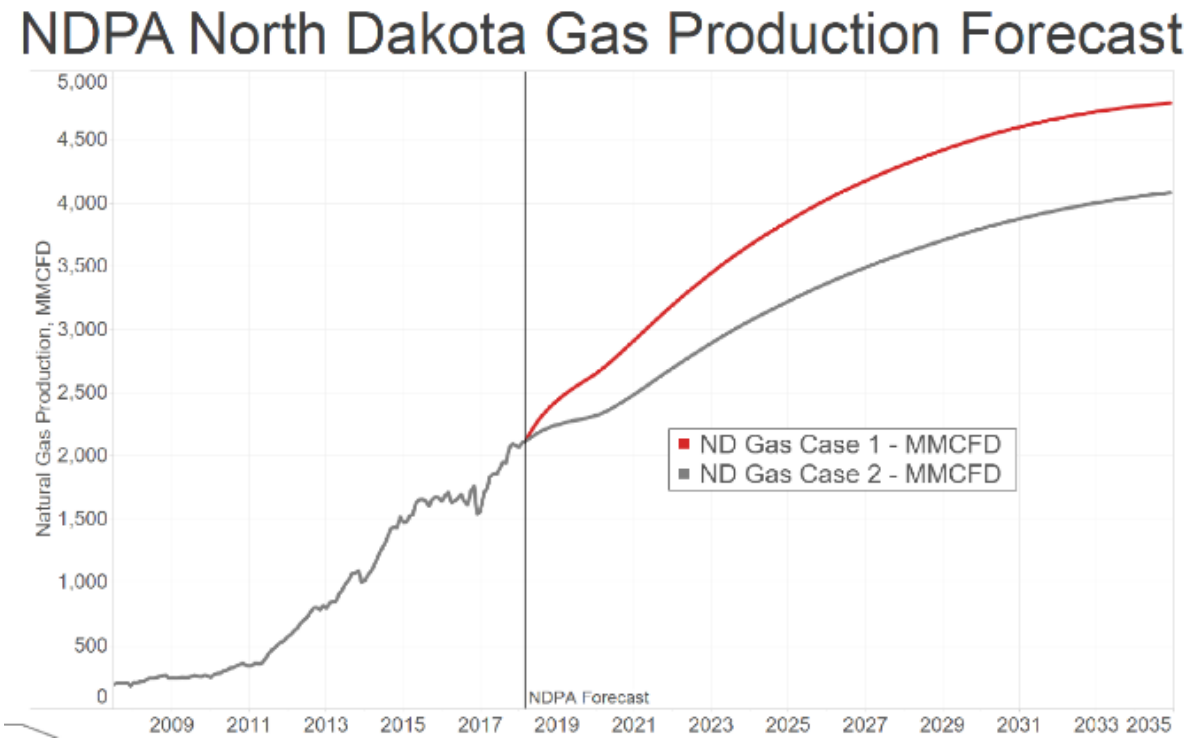
4.1.1 No Action Alternative

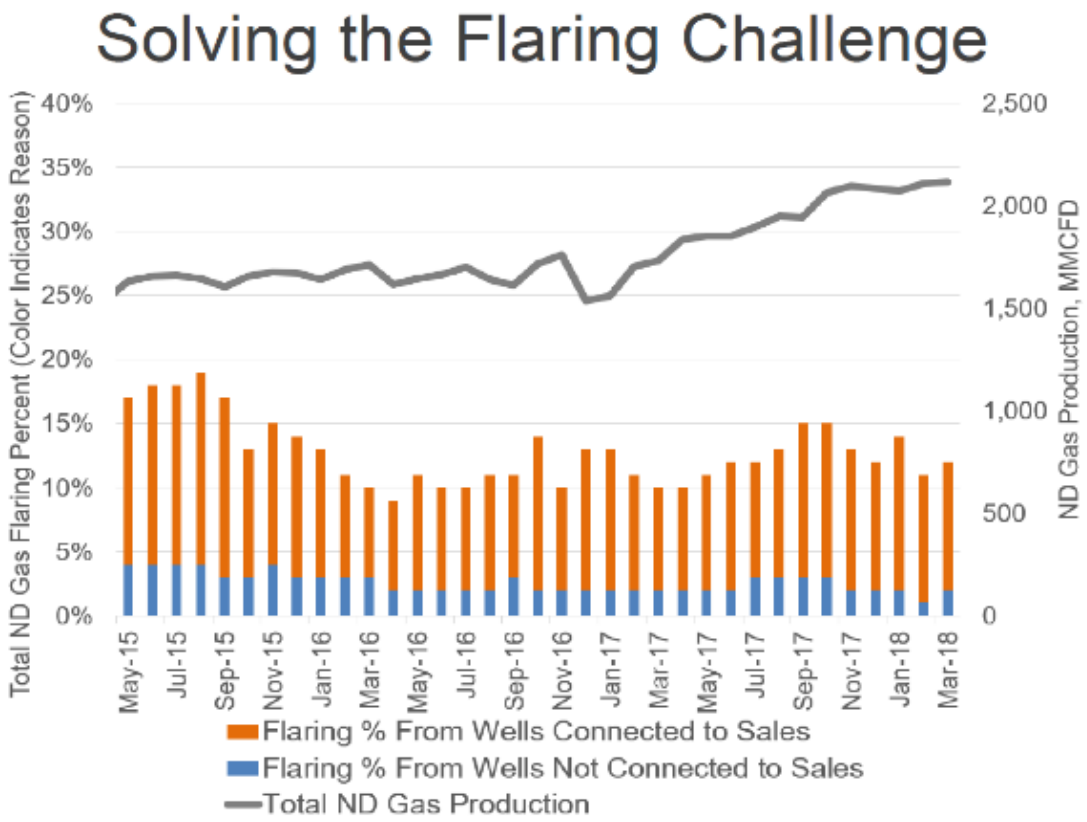
The primary objective of the Project is to provide take-away capacity for the NGLs produced at the Demicks Lake Natural Gas Processing Plant, which is scheduled to be online in the fourth quarter of 2019. Under the No Action alternative, the Project would not be constructed, and the plant could not effectively process gas produced in the region.

Within the region, NGL production from the Williston Basin has increased from 250 MMcf/d in 2011 to almost 2,100 MMcf/d presently and is projected by the North Dakota Industrial Commission (NDIC) to continue to increase through 2035 (see Figure 4.1.1-1). Thus, development of solutions for gas gathering, processing, and take-away infrastructure are needed. Historically, gathering, processing, and pipeline constraints have held back production growth in the Williston Basin region.

A No Action Alternative will leave the region constrained by limited transport capacity for safe and reliable transmission of NGL products to markets. The Demicks Lake Natural Gas Processing Plant is currently under construction and when in-service will be a 400 MMcf/d natural gas processing plant. The No Action Alternative does not meet the commercial needs of ONEOK and does not serve the industry and public at-large. For these reasons, ONEOK rejected the No Action Alternative.

Figure 4.1.1-1 North Dakota NGL Production Forecast





Source: Kringstad, 2018

4.1.2 Truck Transportation Alternative

A Trucking Transportation Alternative was reviewed and rejected due to the volumes of NGLs that will be produced from the Demicks Lake Natural Gas Processing Plant. The maximum daily capacity provided by the proposed Project will be equal to an estimated 40,000 barrels or 1,680,000 gallons of NGLs. The average load for an NGL truck is approximately 10,000 gallons per truck. Thus, it would require 168 trucks per day to be loaded at the Demicks Lake Natural Gas Processing Plant, an average of 7 trucks every hour for 24 hours a day. Similarly, it would require these 168 trucks per day to be unloaded (i.e., transloaded) at a railcar facility terminal. This level of truck activity is not logistically feasible, as it will cause significant amounts of heavy vehicle traffic for the area residents, as well additional wear and tear on the infrastructure. Further, any disruption in the trucking capacity due to seasonal load restrictions on roads, inclement weather, or road repairs would result in a plant shutdown and flaring of gas production. The Trucking Transportation Alternative is additionally constrained by the road network in the rural area of the Project. For these reasons, ONEOK rejected the Trucking Transportation Alternative.

4.1.3 Rail Transportation Alternative

A Rail Transportation Alternative was also evaluated as a surface transportation alternative. However, the lack of active railroad service within reasonable proximity to the Demicks Lake Natural Gas Processing Plant's location limited the viability of this alternative. Upon further analysis, this alternative was determined not feasible due to the associated environmental impacts and financial, logistic, and time constraints necessary to acquire land and construct the requisite rail infrastructure. This alternative would also require a third-party rail operator.

A Rail Transportation Alternative would require the design and construction of rail car loading and offloading facilities, lateral service lines, and ancillary facilities necessary to support the requisite volumes of NGLs, requiring land acquisition and permanent conversion of agricultural land to industrial. Use of rail would require a completely different Project design than that currently proposed for the Project.

While rail tanker cars are a vital part of the short-haul distribution network for NGLs, pipelines are a more reliable, safe, and economical alternative for the large volumes to be transported and long distances to be covered by the Project. As such, the Rail Transportation Alternative is not considered a viable alternative and was rejected.

4.2 ROUTE/SEGMENT ALTERNATIVES

ONEOK has conducted a thorough analysis of the Project Corridor. The purpose of this analysis was to confirm that the proposed Project Corridor is suitable and would cause minimal environmental impacts, thus conforming to the NDPSC siting criteria.

In conjunction with these efforts, ONEOK studied routing alternatives based upon criteria as discussed in Section 2.17. A variety of routes were explored, but later rejected due to a host of feasibility constraints. In support of ONEOK's route selection, the desktop studies of the Project Corridor were refined and augmented with field studies along the entire length of the Project Corridor where landowner permission for surveys was obtained by trained natural and cultural resource specialists.[1] The environmental survey was conducted across a minimum 300-foot-wide area generally centered on the proposed Route. Field

[1] As of November 1, 2018, survey permission from one landowner is pending.

crews performed these comprehensive natural and cultural resource surveys in summer and fall of 2018. The purpose of these field studies was two-fold:

(1) to definitively identify any potential resource issues (e.g., wetlands, waterbodies, protected species, critical habitats, or cultural resources) within the Project Corridor; and

(2) to provide the baseline field data necessary to prescribe alternative routing or mitigation as necessary to minimize environmental impacts.

Based upon desktop and field studies as well as input from regulatory agencies, ONEOK developed its Preferred Route. The Route begins on the eastern end in Township 151N, Range 96W, Section 20 (McKenzie County), moving generally south and west, and terminates in Township 19N, Range 60E, Section 3 in Richland County, Montana. ONEOK has chosen this Project alignment to meet landowner requests and to minimize impacts to environmental features. The Route meets the Project's objectives while conforming to the NDPSC's transmission route siting requirements. Additionally, in selection of the Route, ONEOK co-located approximately 70 percent (52 miles) of the Route in North Dakota.

The results of these field surveys are discussed in the following sections and the full Natural Resources Survey Report is contained in Exhibit C. The Cultural Resources Survey Report is privileged and not included in this application. Refer to Sections 5.1 and 6.9 for a summary of the cultural resource work, results, and consultation with the North Dakota State Historic Preservation Office (SHPO).

5.0 ENVIRONMENTAL STUDIES

ONEOK defined its study area as a one-mile-wide corridor generally centered on the pipeline route and conducted an initial desktop analysis for cultural resources, wetlands and waterbodies, and other sensitive environmental resources. The assessment was conducted utilizing GIS mapping, agency database review, peer-reviewed articles, and internet research. Following the desktop analysis, the appropriate agencies were consulted for cultural and biological resources (see Section 6).

Field studies for the Project focused on a generally 300-foot-wide environmental survey corridor, centered on the pipeline. The survey corridor was widened in select locations to allow for flexibility in pipeline routing or in areas where extra workspace is anticipated to be required. As of November 1, 2018, approximately 97.6 and 99.6 percent of the Project Corridor (as shown on the maps in Exhibits B.2 – B.4) have been surveyed for natural resources and cultural resources, respectively.[2] The Project Corridor is the corridor ONEOK is requesting be certificated by the NDPSC. Some environmental field surveys were performed on areas outside of the Project Corridor. The survey reports (Exhibit C) include details on the full field surveys; however, analysis of environmental resources and impacts in this application is limited to the area within the Project Corridor.

ONEOK contracted specialized consultants to perform cultural, wetland and waterbody, habitat, noxious weeds, and special species assessment surveys for the Project. Additional surveys, including a tree and shrub inventory, and eagle and raptor nest surveys were also initiated and will be supplemented at the pre-construction phase as needed.

5.1 CULTURAL RESOURCE INVENTORY

According to the North Dakota Energy Conversion and Transmission Facility Siting Act, among the "*factors to be considered [by the Commission] in evaluating applications and designation of sites, corridors, and routes,*" is the effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites. The repository in North Dakota for this information is the North Dakota SHPO, which acts as a technical resource during identification and evaluation of areas, sites, and structures and during reviews of Project effects. The NDPSC tasks the Applicant to coordinate identification and effects discussions with the SHPO.

Since April 2018, ONEOK has sponsored desktop and field reviews of a study area that completely encompass the Project Corridor and Route. The review tasks included: canvassing the SHPO previous survey and archaeological and historic structure files and characterizing them in a Class I cultural resource report; documenting archaeological sites and historic structure field inventory of an area that includes the Project Corridor and Route in a Class III cultural resource report; and corresponding with SHPO and other federal agencies about the resources identified and projected avoidance measures, where applicable. The standards of the National Register of Historic Places (NRHP) are used in North Dakota to differentiate those sites for which impacts are considered during Project reviews (i.e., eligible, not evaluated for inclusion on the NRHP) from those for which impacts are not considered.

ONEOK commissioned a Class I cultural resources literature review of records from the SHPO to identify previously completed cultural resource investigations and recorded cultural resources within the Corridor.

[2] Areas that have not been surveyed are displayed on the maps in Exhibit B.4. ONEOK will complete surveys on the remaining parcels pending landowner approvals and favorable weather conditions.

The Class I literature review identified 300 previously recorded cultural resources within one-half mile of the Project route. Of these, 187 are recommended not eligible for inclusion in the NRHP, 4 are eligible for inclusion in the NRHP, and 110 remain unevaluated regarding their NRHP eligibility. A total of 20 previously recorded cultural resources were identified within the Project Corridor.

The Class III Cultural Resource Inventory of the Project Corridor is ongoing. As of October 11, 2018, 50 cultural resources have been recorded within the survey corridor; 27 of these 50 sites were identified within the Route portion of the Project Corridor (Meens, 2018). During the inventory, 32 new cultural resources were recorded, and 18 previously recorded sites were investigated (29 archaeological sites, 17 isolated finds, and 4 site leads). Of the 50 cultural resources encountered, 37 sites are recommended not eligible for inclusion to the NRHP and require no further consideration. One site is recommended eligible and 12 are left unevaluated.

It is recommended that unevaluated sites be allowed a 50-foot buffer around the outside of site boundaries to be avoided by construction activities; however, the eligible site could not be avoided and additional evaluative testing was completed. Testing identified a non-contributing component to the eligibility of the site that would allow the proposed Route to cross the site area; the eligible portions of the site would be avoided. If construction occurs within the avoidance buffers, but outside the site boundary, fencing off the site from the workspace and/or on-site monitoring by a qualified archaeologist is recommended. The isolated finds require no further considerations.

ONEOK is planning to submit the initial Class III cultural resource survey report (Meens, 2018) to the USFS for technical review in November 2018 and request review and comment on the NRHP recommendations (see Section 6.9). Following interagency review, the USFS will submit the Class III inventory report to the SHPO for their 30-day review and concurrence. Supplemental reports detailing survey results on private land will be submitted directly to the SHPO for review.

ONEOK understands that details and locations of cultural resources are considered as privileged; as such, these features are not displayed on the enclosed maps with this application and the Class III survey report is not included with this filing. ONEOK is in active consultation with the USFS and SHPO regarding the Project and will work with both agencies to finalize avoidance and mitigation measures. ONEOK will file copies of future correspondence with the SHPO to the NDPSC to document that the Project will not adversely affect cultural resources.

5.2 WETLAND AND WATERBODY INVENTORY

Wetland and waterbody surveys were conducted within the Project Corridor in summer and fall 2018. Wetland delineations were conducted pursuant to the 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE, 1987), the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE, 2010), the Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al., 1979), and the National Wetland Plant List (Lichvar et al., 2016). Waterbody survey methods followed the protocols set forth in the Regulatory Guidance Letter No. 05-05, Ordinary High-Water Mark Identification (USACE, 2005) and The Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al., 1979).

The results of this survey can be found in the Natural Resource Survey Report provided in Exhibit C. Mapping of wetlands and waterbodies within the surveyed corridor are included in the Selection Criteria maps in Exhibit B.4. A summary of delineated features for the Route is provided in Table 5.2-1 below.

Table 5.2-1 Summary of Delineated Wetlands and Waterbodies			
Component	**Palustrine Emergent Wetland**	**Palustrine Open Water**	**Waterbody**
Number of Delineated Features	30	1	20[1]
Number of features crossed by: Route Centerline	20	1	18
Temporary Impacts (acres):	5.3	<0.1	0.2
Permanent Impacts (acres):	0	0	0

[1] 14 ephemeral, 6 intermittent. Two of the intermittent waterbodies were identified via desktop review in areas where natural resources surveys were not conducted. See Exhibit B.4

ONEOK will implement appropriate minimization and mitigation measures at these features, which may include avoidance (e.g., workspace modification or horizontal directional drilling [HDD]) or use of construction mats and other best management practices (BMPs) to minimize impacts when working in or around wetlands. Refer to the Project maps in Exhibit B.4 for the location of each feature and Section 9 for information regarding additional minimization measures.

5.3 WILDLIFE INVENTORY

Wildlife surveys were conducted within the Project Corridor in conjunction with the wetland and waterbody delineations in summer and fall 2018. The wildlife observed are species commonly associated with agricultural communities. Details regarding the wildlife observed during field surveys are included in the Natural Resources Survey Report included in Exhibit C. Suitable habitat for one federally-listed species (Dakota skipper) was found within the Project Corridor (see Section 5.3.1).

5.3.1 Federally Protected Species Review

A review of the U.S. Fish and Wildlife Service (USFWS) Endangered Species Information, Planning, and Conservation System (IPaC) website (USFWS, 2018a) was conducted to determine the potential for listed species and critical habitat that may be present in McKenzie County, North Dakota. This list was confirmed in discussions with the USFWS North Dakota Field Office (USFWS, 2018b). Field surveys for listed species and a general habitat assessment of the Project Corridor were conducted in the summer of 2018. Details regarding the wildlife observed during field surveys are provided in the Natural Resources Survey Report included in Exhibit C.

Suitable habitat for the Dakota skipper was found within the Project Corridor, and presence/absence surveys conducted during the Dakota skipper flight period identified individuals within the Project Corridor. Individual Dakota skipper were observed along a concentrated, approximately 0.6 mile section of the Project. A Dakota Skipper Individual Survey Report was completed and submitted to the USFS on October 30, 2018. The USFS will submit the report to the USFWS during their Section 7 consultation, as part of ONEOK's application for a Special Use Permit for crossing the LMNG.

Due to concerns with releasing Dakota skipper information to the public, the USFWS has requested that this information not be included with the NDPSC application and that locations of suitable habitat not be

displayed on maps submitted to NDPSC. This report and/or maps can be submitted to NDPSC as confidential/not for public review upon request.

Table 5.3-1 provides a summary of protected species in McKenzie County. A brief description of each species and their preferred habitat is also provided below. A summary of ONEOK's consultation with USFWS with respect to federally-listed threatened and endangered species is included in Section 6.1 and in Exhibit D.

Table 5.3-1
Federally Listed Species in McKenzie County, ND

Scientific Name	Common Name	Status
Canis lupus	Gray wolf	Endangered
Myotis septentrionalis	Northern long-eared bat	Threatened
Sterna antillarum	Interior least tern	Endangered
Charadrius melodus	Piping plover (Northern Great Plains population)	Threatened
Calidris canutus rufa	Rufa red knot	Threatened
Grus americana	Whooping crane	Endangered
Scaphirhynchus albus	Pallid sturgeon	Endangered
Hesperia dacotae	Dakota skipper	Threatened

Gray wolf

A habitat generalist, the gray wolf historically occupied most habitat types in North America. The species shows little preference for one cover type over another and successfully utilize alpine, forest, grassland, shrubland, and woodland habitats across their range (Mech, 1974). Once thought to require wilderness areas with little to no human disturbance, recent range expansions have demonstrated the species' ability to tolerate higher rates of anthropogenic development than previously thought. Given abundant prey and low rates of human-caused mortality, wolves can survive in proximity to human-dominated environments (Fuller, 1989).

Observations of wolves in North Dakota are sporadic; the species is not believed to support a breeding population in the state, and individuals are likely dispersers from adjacent populations (i.e., Minnesota and Manitoba) (Licht and Fritts, 1994). As dispersers, individual wolves are transient and highly mobile. Naturally curious, they may stray close to the Project Corridor, but would likely retreat upon seeing or hearing construction activities. As such, adverse impacts to gray wolves are not expected.

Consultations with the USFWS are ongoing. ONEOK will develop conservation measures, if necessary, to avoid and/or reduce impacts on the gray wolf.

Northern long-eared bat

The northern long-eared bat is a medium-sized bat of the Vespertilionidae family. The species overwinters in small crevices or cracks in hibernacula, such as caves and mines. In summer, the species roosts either singly or in colonies under loose bark or in crevices and hollows in both live trees and snags. A habitat generalist, roost tree selection appears also to be opportunistic, and the species will use a variety of tree sizes and species; however, they appear to prefer trees with a diameter at breast height of at least 3

inches. Less frequently, northern long-eared bats have been observed roosting in man-made structures such as sheds or barns. Although historically less common in the western portion of its range, northern long-eared bats occur throughout North Dakota (USFWS, 2015).

The primary threat to the northern long-eared bat is the spread of white nose syndrome (WNS); in the absence of this disease, it is unlikely the species would be suffering the dramatic population declines seen across its range (USFWS, 2015).

The northern long-eared bat was listed as a federally threatened species in May 2015, with an interim 4(d) rule; the final 4(d) rule was effective as of February 16, 2016. A 4(d) rule may only be applied to species listed as threatened, and is a tool periodically utilized by the USFWS to allow for flexibility in Endangered Species Act (ESA) implementation. The rule allows the USFWS to tailor take restrictions to those that make the most sense for protecting and managing at-risk species and directs the USFWS to issue regulations considered "necessary and advisable to provide for the conservation of threatened species" (USFWS, 2016a).

The USFWS has developed a WNS zone map identifying counties containing hibernacula where bats have been found to exhibit WNS and/or have tested positive for the fungus that causes WNS. These counties have been buffered by approximately 150 miles; within this area, the northern long-eared bat is considered to be at greater risk of population decline. This map was reviewed for this Project Corridor in November 2018 (map date October 1, 2018) (USFWS, 2018c).

Tree clearing will be necessary for this Project; however, the Project Corridor falls outside of the WNS zone. In areas outside of the 150-mile-wide WNS zone, incidental take from lawful activities is not prohibited (USFWS, 2015). Tree clearing on USFS lands will not be conducted during the species' active period (April 1 – September 30). Clearing on non-USFS lands can be conducted at any time of year, per the exemptions of the 4(d) rule. Construction, operation and maintenance activities associated with the Project may affect the northern long-eared bat, but incidental take is not prohibited.

Consultations with the USFWS are ongoing. ONEOK will develop conservation measures, if necessary, to avoid and/or reduce impacts to the northern long-eared bat.

Interior least tern

The smallest of the American terns, the interior population of least terns breed and raise young along sandy, open beaches and islands along major river systems. In North Dakota, the interior least tern utilizes sparsely vegetated sandbars on the Missouri River for nesting, foraging and raising young. The species is found mainly on the Missouri River from Garrison Dam south to Lake Oahe, and on the Missouri and Yellowstone Rivers upstream of Lake Sakakawea. Approximately 100 pairs breed in North Dakota during the summer before flying to coastal areas of Central and South American and the Caribbean Islands (USFWS, 2016b).

Suitable nesting habitat for the least tern is not present in the Project Corridor. As such, impacts to the least tern are not anticipated.

Piping plover

Piping plovers are small shore birds that nests on sandbars in rivers and sandy beaches bordering lakes and reservoirs. 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 U.S. 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 wetlands in the Great Plains for nesting, foraging, sheltering, brood-rearing, and dispersal (USFWS, 2016c; 2018d).

Piping plovers are tracked by the Breeding Bird Survey; only 15 individuals were recorded between 1977 and 2017 (Pardieck et al., 2018). Data from the International Piping Plover Census conducted in 2011 identified 623 adult piping plovers and 255 breeding pairs in North Dakota; no individuals or breeding pairs were identified in McKenzie County (Elliot-Smith et al., 2015). In addition, databases of sightings by private individuals (eBird, 2018; NDBS, 2018; ND-Birds, 2018) were also searched for plover occurrences in the Project Corridor. No piping plover sightings were reported by these sources in McKenzie County.

Wetland and waterbody surveys conducted in 2018 did not identify the presence of suitable wetlands within the proposed Project workspaces (see Exhibit C). As such, no impacts on suitable habitat are anticipated.

Critical habitat has been designated for the piping plover in McKenzie County; however, the Project Corridor does not intersect with designated critical habitat for the species. Consultations with the USFWS are ongoing. ONEOK will develop conservation measures, if necessary, to avoid and/or reduce impacts to the piping plover.

Rufa red knot

The rufa red knot is a large sandpiper 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 northwestern Gulf of Mexico migrate through interior North America during both spring and fall and use stopover sites in the Northern Great Plains. The species relies heavily on exposed substrate at wetland edges for stopover habitat; the suitability of a wetland for red knots depends on water levels and may vary annually (Skagen, 2006; USFWS, 2014a).

The red knot is not a resident of North Dakota; the species is an infrequent migrant during bi-annual migrations (May 15 - June 15 and July 15 - Sept 15). The number of migrating shorebirds documented in the interior can vary dramatically due to high inter-annual availability in water levels and habitat quality at mid-continental wetlands. Construction activities throughout the Project Corridor have the potential to impact individuals, specifically, human presence or noise from construction activities and equipment if construction takes place during the species' migration period. See Section 9.4 for conservation measures which will be implemented to reduce impacts on the rufa red knot.

Whooping crane

Whooping cranes embark on a bi-annual migration from summer nesting and breeding grounds in Wood Buffalo National Park in northern Alberta to the barrier islands and coastal marshes of the Aransas National Wildlife Refuge (NWR) on the Gulf Coast of Texas (USFWS, 2014b). 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 and 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 (USFWS, 2014b).

In North Dakota, the whooping crane is not present year-round; they are only present during the bi-annual migration between winter grounds and summer nesting sites (late April to June 15 and September 15 to November 15). As such, the species cannot be confirmed as present in or absent from the Project Corridor. However, the Project Corridor falls within the 95 percent migration corridor (i.e., the 220-mile band where 95 percent of all whooping crane sightings have occurred), and suitable stopover habitat (i.e., open landscape wetlands and croplands) is present in the vicinity of the Project. Construction activities have the potential to impact individual whooping cranes. Specifically, if construction takes place during the species' migration period, human presence or noise from construction activities and equipment may cause migrating whooping cranes to startle and flush from wetlands or fields and/or to divert from the area.

See Section 9.4 for conservation measures which will be implemented to reduce impacts on the whooping crane.

Pallid sturgeon

The pallid sturgeon inhabits the Missouri and Mississippi Rivers from Montana to Louisiana. Wild pallid sturgeon have been noted in the Missouri River downstream from the Fort Peck Dam in Montana to the headwaters of Lake Sakakawea, North Dakota, and downstream from Garrison Dam, North Dakota to the headwaters of Lake Oahe, South Dakota (USFWS, 2014c). The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and requiring extensive micro habitat diversity. The species is usually found in main-channel habitat with a sand or gravel bottom (USFWS, 1990).

The Project Corridor does not cross the Missouri or Yellowstone Rivers. As such, impacts to pallid sturgeon are not anticipated.

Dakota skipper

The Dakota skipper 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 can be found in both wetlands and uplands, but do 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, and larvae of the Dakota skipper 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 skipper typically occupies both wet-mesic and dry-mesic prairie (USFWS, 2014d).

Surveys to identify suitable Dakota skipper habitat were conducted in June 2018 by qualified surveyors within an environmental survey boundary. Suitable habitat was delineated in a number of areas within the Project Corridor. Presence/absence surveys were conducted during the species' flight period following the USFWS *2018 Dakota Skipper (*Hesperia dacotae*) North Dakota Survey Protocol*. As noted above, a Dakota Skipper Individual Survey Report was submitted to USFS, who will supply the report to the USFWS

as part of their review of the Project. ONEOK has been in communication with USFWS regarding this Project and will keep the NDPSC apprised of ongoing discussions with USFWS related to this species.

Critical habitat has been designated for the Dakota skipper in McKenzie County; however, the Project Corridor does not intersect with designated critical habitat for the species. See Section 6.1 for a summary of consultations with USFWS and Section 9.4 for conservation measures which will be implemented to reduce impacts on the Dakota skipper.

5.3.2 Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. Executive Order (EO) 13186 (66 Federal Register 3853) directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse effects on migratory birds through enhanced collaboration with the USFWS. EO 13186 states that emphasis should be placed on species of concern, priority habitats, and key risk factors, and that particular focus should be given to addressing population-level impacts.

Surveys of the Project Corridor were conducted in the summer of 2018, which confirmed that suitable nesting habitat for migratory birds is present within the Project Corridor or within line-of-site of the Project Corridor. ONEOK has developed a MBTA Plan to outline measures it will implement to avoid, minimize, and reduce possible impacts on migratory birds. Conservation measures will be developed in consideration of statutory authority, regulatory guidance, and through experience with state and federal agencies on past projects in the region.

ONEOK would conduct surveys in spring 2019 to determine if the eight historic sharp-tailed grouse leks which have been documented within one mile of the Project area are active (USFS, 2018a). If active, a line-of-site and Project-level analysis would then be completed in coordination with the USFS to determine the appropriate disturbance buffer and/or timing restriction to prevent disruption of reproductive activities. These surveys would be coordinated with the USFS and would be conducted concurrently with eagle nest surveys.

Prior to initiating pre-clearing activities and construction, ONEOK will also conduct environmental training for company and contractor supervisory personnel. Where constructing the Project outside of the peak nesting season for migratory birds is not feasible, ONEOK will conduct ground surveys to identify migratory bird nests that could be impacted by construction activities. Varying activity restriction buffers around active nests will be utilized as conservation measures for the plan.

A summary of ONEOK's consultation with USFWS with respect to MBTA is included in Section 6.1 and in Exhibit D.

5.3.3 Bald and Golden Eagle Protection Act

Bald and golden eagles are protected by both the MBTA and the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA prohibits the take of a bald or golden eagle adults, juveniles, or chicks including their parts, nests, or eggs without a permit. Take is defined by the BGEPA as to pursue, shoot, shoot at, poison,

wound, kill, capture, trap, collect, molest, or disturb. The BGEPA also addresses impacts resulting from human-induced alterations occurring around previously used nesting sites.

Surveys of the Project Corridor were conducted in the summer of 2018, which confirmed suitable eagle nesting habitat is present within the Project Corridor or within line-of-site of the Project Corridor. Field crews visited three golden eagle (*Aquila chrysaetos*) nest locations (previously documented by USFS) in the Project vicinity. These nests were visited to confirm their presence and determine, if applicable, their condition and activity. Only one of the nests was successfully relocated and found to be in good condition. The general location of the nest is depicted on page 23 of the delineated features mapbook in the Natural Resource survey report (see Exhibit C). No eagles were observed near any of the nest locations at the time of survey.

ONEOK would conduct surveys prior to construction activities to determine whether this nest is active, per USFS survey guidelines. ONEOK would coordinate with the USFS to determine if new eagle nest sites have been identified within 1 mile of the project area. If any nests are active, a line-of-site and project-level analysis would then be completed in coordination with the USFS to determine the appropriate disturbance buffer and/or timing restriction to prevent disruption of reproductive activities.

A summary of ONEOK's consultation with USFWS with respect to BGEPA is included in Section 6.1 and in Exhibit D.

5.3.4 Regional Forester Sensitive Species Surveys

The USFS was contacted for historical or potential occurrences of plant species of concern in the Project area (USFS, 2018b). The USFS identified 14 listed Regional Forester Sensitive Species (RFSS) plant species that occur in the LMNG, including the Project area. Three species, Missouri foxtail cactus, Hooker's Townsendia, and Easter daisy, have been historically documented within 1 mile of the Project area (USFS, 2018b).

Between June 5 and June 19, 2018, ONEOK surveyed USFS lands for RFSS plant species using a 300-foot-wide corridor, generally centered over the proposed Route (USFS, 2018c). Field surveys resulted in the following observations: the Missouri foxtail cactus was found frequently in the environmental survey corridor, Hooker's Townsendia was found at several locations throughout the survey area, and the Easter daisy was observed at a single location and only one individual was found. Suitable habitat for Dakota buckwheat and sand lily was also present within the Project area; however, no individuals were observed during field surveys. Detailed survey information for RFSS species was provided to the USFS in the Project's Biological Evaluation (BE) and in the Forest Service Sensitive Species Survey Report.

ONEOK is in active discussions with USFS regarding avoidance, minimization, and mitigation measures for potential impacts to these species and assumes the USFS may impose certain conditions regarding these species in its Special Use Permit. ONEOK will file a copy of the Special Use Permit with the NDPSC upon receipt.

5.4 TREE/SAPLING/SHRUB INVENTORY

During the natural resource surveys described above, crews noted general areas where trees and shrubs are present, but the crews did not conduct a formal inventory. A formal tree and shrub inventory was initiated in fall 2018 and is ongoing. Additional field work may occur prior to construction as the workspace

is finalized and pending final regulatory authorization of the Project. The inventory will record the pre-construction status of these resources, which would form the baseline for restoration and mitigation reconciliation.

ONEOK anticipates authorization of the Project will require all trees and shrubs that are removed to be replaced at a 2:1 ratio. ONEOK will submit its tree and shrub inventory and proposed mitigation plan upon completion.

5.5 NOXIOUS WEEDS INVENTORY

The Federal Noxious Weed Act of 1974 established a federal program to control the spread of noxious weeds. The U.S. Secretary of Agriculture was given the authority to declare plants "Noxious Weeds" and limit the interstate spread of such plants without a permit. North Dakota law (NDCC § 4.1-47-02) requires every person to do all things necessary and proper to control the spread of noxious weeds and makes it illegal for any person to distribute, sell, or offer for sale within this state a noxious weed.

The North Dakota Department of Agriculture (NDDA) lists 11 species of noxious weeds and invasive species. In addition to the NDDA noxious weed and invasive species list, localized weed boards within each county manage noxious weeds and invasive species and may develop a list of additional weeds for enforcement within their jurisdiction. McKenzie County has designated five additional species as noxious weeds (refer to Table 5.5-1 and Exhibit C).

Table 5.5-1
State and County Listed Noxious Weeds

Common and Scientific Name	State of North Dakota	McKenzie County
Absinth wormwood (*Artemisia absinthium*)	x	x
Baby's breath (*Gypsophila*)		x
Black henbane (*Hyoscyamus niger*)		x
Canada thistle (*Cirsium arvense*)	x	x
Common burdock (*Arctium minus*)		x
Dalmatian toadflax (*Linaria dalmatica*)	x	x
Diffuse knapweed (*Centaurea diffusa*)	x	x
Field bindweed (*Convolvulus arvensis*)		x
Halogeton (*Halogeton glomeratus*)		x
Houndstongue (*Cynoglossum officinale*)		x
Leafy spurge (*Euphorbia esula*)	x	x
Musk thistle (*Carduus nutans*)	x	x
Purple loosestrife (*Lythrum salicaria*)	x	x
Russian knapweed (*Acroptilon repens*)	x	x
Saltcedar (*Tamarix chinensis*)	x	x

Table 5.5-1 State and County Listed Noxious Weeds		
Common and Scientific Name	**State of North Dakota**	**McKenzie County**
Spotted knapweed (*Centaurea maculosa*)	x	x
Yellow starthistle (*Centaurea solstitialis*)		x
Yellow toadflax (*Linaria vulgaris*)	x	x

Field surveys conducted in the summer of 2018 documented 88 areas of noxious weeds within the planned Project Corridor. Of the 88 occurrences, 84 were Canada thistle, three were common burdock, and one was field bindweed. A detailed description of these areas and maps displaying their locations are included in the Natural Resources Survey Report included in Exhibit C.

It is ONEOK's intent to minimize the potential introduction and/or spread of invasive species and noxious weeds along its construction ROW during pipeline construction activities and the revegetation timeframe. However, it is not practicable for ONEOK to eradicate undesirable species that are adjacent to its ROW. ONEOK will minimize the potential for the establishment of undesirable species by minimizing the time duration between final grading and permanent seeding. ONEOK will also require that construction equipment be cleaned before arriving on the construction spread to prevent the introduction of undesirable species to the Project area, as described in the Project's Weed Management Plan and Revegetation Plan, which addresses weed control. The McKenzie County Weed Board requires a Weed Management Plan be prepared and submitted for approval. ONEOK has developed a draft of this plan, which will be finalized and submitted to McKenzie County for review and approval prior to construction.

6.0 AGENCY NOTIFICATIONS AND PERMITTING

In spring and summer 2018, ONEOK initiated consultation and coordination with federal, state, and local agencies requesting review of a one-mile study area surrounding the Project. Letters and/or emails were submitted with accompanying maps of the Project. As noted previously, ONEOK has also been in active discussions with the USFS and USFWS. A summary of these consultations is provided in Table 6.0-1 and further details on each consultation are included in the following sections.

Table 6.0-1
Summary of Agency Notifications[1]

Agency	Applicable Resource/Program	Date Submitted	Response Received
USFS Little Missouri Grasslands – McKenzie Ranger District	Federally Managed Lands; LMNG – Special Use Permit	Special Use Permit Application submitted June 22, 2018	Ongoing Consultation[5]
	NRHP, Cultural Resources Consultation	Report to be submitted to USFS in November 2018	Ongoing Consultation[5]
USFWS North Dakota Field Office[2]	Federally listed threatened and endangered species, USFWS-managed lands, MBTA consultation, and BGEPA consultation	5/22/2018 8/1/2018[3]	Pending / Ongoing Consultation[5]
USACE, Regulatory Office	Crossings of Section 408 Civil Works projects or other USACE-owned or managed lands; any special requirements, restrictions, or specifications regarding constructing pipelines across or under USACE-regulated features; and any permits issued through USACE which may be applicable to the Project to include anticipated permitting timeframes	8/1/2018	8/15/2018
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service-McKenzie County	Identification of impacts to NRCS-administered lands and programs	8/2/2018	8/13/2018
USDA Farm Services Agency (FSA)	Identification of impacts to FSA-administered lands and programs	8/2/2018	8/6/2018
U.S. Department of Defense (USDOD) - Cable Affairs	Identification of intercontinental ballistic missiles and launch facilities locations relative to the route	8/2/2018	8/3/2018
North Dakota Game and Fish Department (NDGFD)	State Conservation Priority Species, Game Refuges, Game Management Areas and Private Land Open to Sportsmen	6/7/2018 8/1/2018[3] 10/25/2018[4]	7/9/2018 8/31/2018 Pending
North Dakota Parks and Recreation Department	North Dakota Natural Heritage Inventory system, State Parks, Recreation areas, Natural areas, and Land and Water Conservation Fund projects	6/7/2018 8/1/2018[4]	8/27/2018
North Dakota SHPO	Natural Register of Historic Places, Cultural Resources Consultation	Report to be submitted to USFS in November 2018	Ongoing Consultation

Table 6.0-1 Summary of Agency Notifications[1]			
Agency	**Applicable Resource/Program**	**Date Submitted**	**Response Received**
North Dakota Geological Survey (NDGS)	Identification of impacts to NDGS-administered lands and programs	8/1/2018	8/21/2018
North Dakota Department of Health (NDDH)	Identification of impacts to NDDH-administered programs	8/1/2018	8/15/2018
North Dakota State Water Commission (NDSWC)	Identification of impacts to rural water supply systems and NDSWC-administered projects	8/1/2018	8/24/2018
North Dakota Department of Trust Lands (NDDTL) – School Trust	Identification of impacts to NDDTL-administered School Trust lands.	8/2/2018	8/6/2018
NDDTL – Mineral Trust	Identification of impacts to NDDTL-administered Mineral Trust lands	8/2/2018	8/14/2018
Western Area Water Supply Authority (WAWSA)	Identification of impacts to rural water supply systems and WAWSA-administered projects	8/1/2018 8/27/2018[6]	Pending Pending
McKenzie County Board of Commissioners	Confirmation of any local ordinances or other resources under McKenzie County jurisdiction applicable to the Project; any permits issued through the Board of Commissioners office which may be applicable to the Project; and a summary of any applicable permit process and anticipated timeframes	8/1/2018	Pending
McKenzie County Water Resource Board	Locations of any county-regulated drains, ditches, and/or other drainage features; relevant special requirements, restrictions, or specifications; relevant local ordinances and/or permits; and a summary of permit process and anticipated timeframes	8/1/2018	Pending
McKenzie County Weed Control Board	Confirmation of current listing of noxious weeds; known locations of noxious and/or invasive weed species along the proposed route; and guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options	8/2/2018	8/2/2018

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1 Full copies of agency consultations are included in Exhibit D.

2 A consultation letter was also submitted to the USFWS Montana Field Office to solicit comments on Montana portion of the route.

3 Follow up consultation letter sent to address reroutes.

4 ONEOK requested bald and golden eagle data from NDGFD on 10/25/2018; response pending.

5 ONEOK is in active consultation with USFWS and USFS regarding the Project.

6 Consultation letter sent on August 1, 2018 was returned as undeliverable. A follow-up email with the consultation letter as an attachment was sent on August 27, 2018

6.1 U.S. FOREST SERVICE

6 CFR Parts 251, 261, and 295 regulate land uses on National Forest System lands. According to these regulations, the installation of a pipeline utility on National Forest System lands is a use which requires a Special Use Permit by the USFS. The Project will cross the LMNG, USFS-managed lands, in the following areas (see maps in Exhibit B for more information):

Table 6.1-1 USFS-Managed Lands Crossed by Demicks Lake Pipeline		
Section(s)	**Township**	**Range**
2, 11	146N	104W
35	147N	104W
5-7	147N	103W
23, 26-27, 32-34	148N	103W

ONEOK submitted an application for a Special Use Permit to the USFS via Standard Form 299 in June 2018. Acceptance and approval of the Special Use Permit by the USFS is pending. ONEOK is currently working with the USFS on the development of an Environmental Assessment (EA) to satisfy the USFS' environmental review obligations under the National Environmental Policy Act (NEPA). ONEOK is actively working with the USFS on this process and will file a copy of the Special Use Permit upon receipt from the USFS. Construction on the LMNG will not begin until authorization from the USFS is received.

6.1.1 Biological Resources

ONEOK has also developed a BE on behalf of the USFS to evaluate impacts to RFSS and USFS Management Indicator Species. A draft BE has been submitted to the USFS and consultations regarding impacts to these species are ongoing.

6.1.2 Cultural Resources

The National Historic Preservation Act (NHPA) requires federal agencies to consider an undertaking's effects on "historic properties," which are defined as cultural resources listed or determined eligible for listing on the NRHP. Section 106 of NHPA and accompanying implementing regulations specified in 36 CFR 800 (Protection of Historic Properties) establish a collaborative consultation/review process and specific sequential procedures that enable federal agencies to identify historic properties that may be directly or indirectly affected by a proposed federal undertaking. ONEOK has been in active consultation with USFS regarding the Project since Spring 2018.

As the lead federal agency for the portion crossing USFS lands, ONEOK is planning to submit the Class III cultural report to USFS in November 2018 for their review. The USFS will submit the report to the SHPO after their review is complete. ONEOK will file with the NDPSC comments from USFS and SHPO regarding the Class III cultural resource report once they are received and will work with USFS to finalize avoidance and mitigation measures for sites on federal land.

On June 1, 2018, ONEOK participated in a conference call with the USFS to discuss the proposed testing plan for one eligible cultural site on federal land, which was approved by the USFS during the call. An Archaeological Resources Protection Act (ARPA) permit application was submitted to USFS on June 12, 2018 to conduct testing at the site and it was approved on September 24, 2018. Supplemental correspondence regarding evaluative testing of one cultural site is pending completion of the fieldwork reporting.

Refer to Section 5.1 for a summary of cultural resource Class III survey work and site testing. ONEOK will file any future written correspondence between ONEOK, USFS and SHPO to the NDPSC.

6.2 U.S. FISH AND WILDLIFE SERVICE

The USFWS administers several programs designed to identify and protect special status plant and animal species, critical habitats, and lands managed by the agency including the MBTA and the BGEPA. Additionally, the USFWS administers NWR and Waterfowl Production Areas (WPAs) as well as wetland and grassland easements throughout North Dakota. ONEOK provided the USFWS with project notification on May 21, 2018, which included a description of the Project and an assessment of its impacts relative to the interests of the USFWS. A follow-up notification was submitted on August 1, 2018, to provide the USFWS with an updated corridor resulting from reroutes.

ONEOK met with the USFWS on July 10, 2018 and August 29, 2018 to discuss items related to the ESA Section 7 consultation, specifically potential Project impacts on protected species, and avoidance, minimization, and mitigation measures to prevent adverse impacts.

ONEOK is preparing a Biological Assessment (BA) on behalf of the USFS to assist with their ESA Section 7 consultation with the USFWS. When finalized, the USFS will submit the BA to the USFWS to initiate ESA Section 7 consultation. Formal written responses have not yet been received; however, ONEOK is working with the USFWS and USFS regarding the Project and will file relevant communication, upon receipt.

6.2.1 Federally Protected Species Review

Project-specific consultations were initiated with the USFWS requesting confirmation regarding the presence or absence of federally protected species and their designated critical habitat. Merjent, Inc. (Merjent) provided assistance with protected species reviews and subsequent correspondence with USFWS. A Project notification letter was submitted to the USFWS in spring 2018. Merjent confirmed the list of species potentially impacted by the Project in a phone call with the USFWS ND Ecological Services Field Office on May 29, 2018. Results of this analysis are discussed in Section 5.3.1 of this application and a record of communication can be found in Exhibit D.

6.2.2 Migratory Bird Treaty Act

Migratory birds are federally protected by the MBTA, which prohibits the taking, killing, possession, and transportation of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. In North Dakota, both native prairie and non-native grasslands provide breeding, nesting, foraging, brood-rearing, and dispersal habitat for many species of migratory birds. As summarized in Section 9, ONEOK will implement a MBTA Plan during construction to protect migratory birds and eagles/raptors.

6.2.3 Bald and Golden Eagle Protection Act

Bald and golden eagles are protected by both the MBTA and the BGEPA. The BGEPA prohibits the take of a bald or golden eagle adults, juveniles, or chicks including their parts, nests, or eggs without a permit. Take is defined by the BGEPA as to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. The BGEPA also addresses impacts resulting from human-induced alterations occurring around previously used nesting sites.

As summarized in Section 9, ONEOK will implement an MBTA Plan during construction to protect migratory bird and eagle/raptors. See Section 5.3.3 for further discussion.

6.2.4 Wetland and Grassland Easements

The USFWS administers NWRs and WPAs, as well as wetland and grassland easements throughout North Dakota. A desktop review of information available in the public domain, including U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps, USGS Protected Areas Database-US dataset, and the USFWS IPaC has been completed for the Project Corridor. Desktop analysis indicates no USFWS managed lands are located within the Project Corridor.

Wetland and grassland easement data is not typically publicly available and must be obtained from USFWS staff. ONEOK has inquired with landowners along the route if their property contains any USFWS easements. To date, ONEOK is not aware of any wetland or grassland easements that will be impacted.

While a formal response from USFWS has not been received as of this filing, ONEOK has initiated Project-specific consultations with the USFWS requesting notification should USFWS managed lands be located within the Project area. A record of this communication can be found in Exhibit D.

6.3 U.S. ARMY CORPS OF ENGINEERS

The USACE regulates impacts to waters of the U.S.[3] under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Based on a review of the wetland and waterbody data collected during field surveys (see Section 5.2 and Exhibit C), the pipeline will cross features that likely fall within the USACE's jurisdiction. ONEOK expects that the Project will be eligible for coverage under the USACE Nationwide Permit (NWP) 12, which authorizes temporary impacts to USACE-jurisdictional waters due to construction of utility lines. Based on a review of anticipated temporary impacts to waters of the U.S., at this time, ONEOK does not anticipate that the Project will meet one of the following seven criteria that trigger the need for a Pre-Construction Notification (PCN) to the USACE:

1. Mechanized land clearing in a forest wetland;
2. A Section 10 permit is required;
3. The crossing length of the utility line in Waters of the U.S. exceeds 500 feet (applied to each crossing individually);
4. The utility line is within a jurisdictional area and runs parallel to a stream bed that is within a jurisdictional area;
5. Discharges that result in the loss (i.e., permanent fill) of greater than 1/10 acre of Waters of the U.S.;
6. Permanent access roads constructed above grade in Waters of the U.S. for a distance of more than 500 feet; or
7. Permanent access roads are constructed in Waters of the U.S. with impervious surfaces.

If a PCN is not required to be submitted, work within jurisdictional waters will be conducted in accordance with the General Conditions of NWP 12. If it is determined a PCN is required, ONEOK will inform the NDPSC and provide a copy of USACE's approval upon receipt.

ONEOK has initiated Project-specific consultations with the USACE requesting notification of Section 408 Civil Works projects or other USACE-owned or managed lands within the study area; any special requirements, restrictions, or specifications regarding constructing pipelines across or under USACE-

[3] As defined in 40 CFR 230.3

regulated features; and any permits issued through USACE which may be applicable to the Project to include anticipated permitting timeframes.

In a response received on August 15, 2018, the USACE stated if the Project cannot be covered by NWP 12, a Standard or Individual Permit, in addition to the issuance of a public notice, would be required. If Section 404 applicability is determined, or if ONEOK cannot determine applicability, ONEOK will be required to submit ENG Form 4345. As noted above and based on the current scope of the Project, ONEOK does not anticipate needing an Individual Permit as the Project should be eligible for coverage under NWP 12. Additionally, the USACE confirmed no 408 Projects are located within the evaluation corridor. A review of the study area did not identify any Section 10 (i.e., navigable) waters and none were identified in the USACE response. A record of this communication can be found in Exhibit D.

6.4 U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) administers the Grassland Reserve Program, Wetland Reserve Program (WRP), as well as the Farm and Ranch Lands Protection Program and the Agricultural Conservation Easement Program.

On August 1, 2018, ONEOK provided Project notification to the NRCS requesting a review of the Project for concerns related to NRCS-administered lands and programs. The NRCS responded on August 13, 2018 and identified three WRP easements in the northwest portion of McKenzie County; all of which are several miles from the Project. NRCS concluded that the Project will not affect NRCS-administered easements. A record of this communication can be found in Exhibit D.

Through landowner communications to-date, ONEOK has identified one crossing of Conservation Stewardship Program (CSP) land. The NRCS has not identified any specific requirements related to CSP land.

6.5 U.S. DEPARTMENT OF AGRICULTURE, FARM SERVICE AGENCY

Lands enrolled in the USDA-FSA-administered Conservation Reserve Program (CRP) are privately owned; however, the FSA has administrative responsibilities to ensure the provisions of CRP are maintained throughout the contract period. The CRP program stipulates that lands enrolled in CRP may not have the vegetative cover disturbed during the Primary Nesting and Brood Rearing Season (April 15 through August 1) unless disturbance of the existing cover is minimal, and a waiver of this provision is granted by the FSA.

On August 1, 2018, ONEOK provided Project notification to the FSA requesting confirmation regarding FSA-administered lands and programs in the Project Corridor. The FSA responded on August 6, 2018, stating they cannot provide specific information, but can provide the names of all FSA participants in the county. Rather than obtain the full list of CRP enrollees from the FSA, ONEOK is working with landowners directly during the easement acquisition process to identify presence of CRP enrolled lands within the Project area. Should CRP land be impacted by the Project within the Primary Nesting and Brood Season noted above, ONEOK will apply for a waiver from FSA. A record of this communication can be found in Exhibit D.

6.6 U.S. DEPARTMENT OF DEFENSE

Review of aerial imagery (University of Wyoming [UWYO], 2018) for each Minot Air Force Base Minuteman Intercontinental Ballistic Missile (ICBM) site suggested the absence of ICBM launch or launch control facilities within 1,200 feet of the Project Corridor. On August 2, 2018, ONEOK provided Project notification to the U.S. Department of Defense (USDOD) requesting confirmation regarding the presence or absence of ICBM facilities within 1,200 feet of the Project Corridor. The USDOD confirmed in their August 3, 2018 response that no USDOD lands are located within the one-mile-wide evaluation corridor. A record of this communication can be found in Exhibit D.

6.7 NORTH DAKOTA GAME AND FISH DEPARTMENT

The North Dakota Game and Fish Department (NDGFD) has oversight of the State's game species. On June 7, 2018, ONEOK provided Project notification to the NDGFD requesting information regarding the presence or absence of State Conservation Priority Species within the Project Corridor. The NDGFD provided a written response dated July 3, 2018.

The NDGFD's response indicated their primary concern is the possible disturbance of native prairie and wooded draws. The NDGFD requested every effort be made to prevent destruction of these areas and disturbed areas be reclaimed to pre-Project conditions. The NDGFD requested appropriate precautions be taken to protect any wetlands that cannot be avoided. Lastly, the NDGFD noted the need for raptor surveys if construction occurs during nesting season, and appropriate construction buffers. A copy of the NDGFD's response is included in Exhibit D.

A follow-up notification letter and revised maps were sent to the NDGFD on August 1, 2018 to address reroutes outside of the previously reported study area. The NDGFD responded to this follow-up letter on August 31, 2018, stating they had no further comments beyond those outlined in their July 3, 2018, response.

On October 25, 2018, ONEOK requested bald and golden eagle nesting data from the NDGFD; a response is pending. Once received, any conditions of the response will be incorporated into ONEOK's construction work plans. Records of this communication are included as Exhibit D.

As outlined in Section 9, ONEOK has already accounted for many of these concerns and has developed, or will develop, plans and procedures to address these items during construction. ONEOK will continue to review work plans and procedures to incorporate NDGFD's recommendations where feasible.

6.8 NORTH DAKOTA PARKS AND RECREATION DEPARTMENT

The North Dakota Parks and Recreation Department (NDPRD) Natural Resource Division's scope of authority and expertise covers recreation and biological resources (rare species and ecological communities, in particular). The NDPRD also maintains a database identifying the locations and recorded occurrences of plant and animal species of special concern. The NDPRD authority includes management of state park lands and Land and Water Conservation funded recreation projects.

On June 7, 2018, Project notification was initiated with the NDPRD seeking confirmation regarding the presence or absence of managed lands, ecological resources, rare species, or their critical habitats within the Project Corridor. A follow-up notification letter and revised maps were sent to the NDGFD on August

1, 2018, to address reroutes outside of the previously reported study area. The NDPRD responded on August 27, 2018, stating that the Project as defined does not affect state park lands or Land and Water Conservation Fund project sites, both of which are managed by the NDPRD. The agency did identify several species of concern in or adjacent to the Project area. The NDPRD stated they defer any additional information regarding those species to the USFWS and/or NDGFD. A record of this communication can be found in Exhibit D.

6.9 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE

According to the North Dakota Energy Conversion and Transmission Facility Siting Act, among the "*factors to be considered [by the Commission] in evaluating applications and designation of sites, corridors, and routes,"* is the effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites. The repository in North Dakota for this information is the SHPO, which acts as a technical resource during identification and evaluation of areas, sites, and structures and during reviews of Project effects. The NDPSC tasks the Applicant to coordinate identification and effects discussions with the SHPO.

On June 1, 2018, ONEOK participated in a conference call with the SHPO and USFS to develop a testing plan for one eligible site on USFS land, which was approved by the USFS. ONEOK participated in a conference call with the SHPO to develop testing plans for four unevaluated sites on July 26, 2018. The plans were submitted to the SHPO and they concurred with the plans on July 27, 2018. Since the Class III cultural report includes survey results on USFS, the USFS will submit the inventory report to the SHPO after their interagency review. ONEOK will file with the NDPSC comments from SHPO regarding the Class III cultural resource report once they are received and will work with SHPO to finalize avoidance and mitigation measures on private lands. Class III inventory across private land in North Dakota is still on-going and additional testing was conducted at four sites. Results of these cultural resources investigations will be provided in separate reports to North Dakota SHPO in early 2019. ONEOK will file any future written correspondence between ONEOK and SHPO to the NDPSC.

6.10 NORTH DAKOTA GEOLOGICAL SURVEY

On August 1, 2018, Project notification was initiated with the North Dakota Geological Survey (NDGS) to solicit comments on the Project. A response from the NDGS was received on August 21, 2018. The NDGS noted that the proposed pipeline route does not cross any areas previously mapped as landslides; however, they did note several areas of concern that could have the potential for future slope instability. These areas were found at stream crossings or alongside slopes of relatively high topographic relief along the proposed pipeline route. A record of this communication can be found in Exhibit D.

6.11 NORTH DAKOTA DEPARTMENT OF HEALTH

The North Dakota Pollution Discharge Elimination System (NDPDES) is the regulatory program that regulates water discharges such as construction stormwater, trench dewatering, and hydrostatic discharge permits. ONEOK will procure the following NDPDES permits from the North Dakota Department of Health (NDDH) as described below.

Construction Stormwater: The NDDH, through their NDPDES construction stormwater program, authorizes the discharge of stormwater associated with construction activities under their general permit North Dakota Rules (NDR)10-0000. Per the Energy Policy Act of 2005 and the remand of the U.S.

Environmental Protection Agency's rule by the Ninth Circuit Court of Appeals, this Project is exempt from requiring permit coverage under NDR10-0000. However, ONEOK will develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to prevent pollutant runoff from the construction site to waters of the State.

Hydrostatic Test Water Discharges: The NDDH also provides authorization to discharge water from hydrostatic testing of pipe and dewatering activities during construction under the NDPDES general permit NDG07-0000. ONEOK will apply for permit coverage and comply with the requirements of NDG07-0000 for hydrostatic test discharge and dewatering activities associated with the Project. Coverage under the permit is generally granted no more than 30 days after submittal of an application. ONEOK will file a copy of this permit with the NDPSC upon receipt.

The NDDH also administers the North Dakota Source Water Protection Program, which was developed in response to the 1996 Safe Drinking Water Act amendments. The program identifies wellhead protection areas (WHPA) for groundwater-dependent public water systems or a source water protection area for surface water-dependent public water systems. Based on review of the NDDH Wellhead Protection and Source Water Protection Areas datasets (NDDH, 2018), the nearest protection area is a community WHPA, Watford Residence Suites, located approximately 1.2 miles southeast of the Project and 1.8 miles northeast of Watford City. This WHPA is listed as "moderately susceptible".

On August 1, 2018, Project notification was initiated with the NDDH seeking confirmation regarding NDDH-administered programs in the Project Corridor. The NDDH responded on August 15, 2018, stating the department owns no land in or adjacent to the proposed improvements, does not have any projects scheduled in the area, and believes the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

Additional comments from the NDDH were that a Construction Storm Water Permit should be obtained, if deemed necessary, and ONEOK should ensure any local stormwater management requirements are met. The NDDH requested ONEOK ensure care is taken during construction activity near any water of the State to minimize adverse effects on a water body and to prevent spills of oil and grease from equipment maintenance and/or the handling of fuels on the site from reaching receiving waters. The NDDH also stated impacts to human health and the environment should be minimized wherever possible.

The NDDH noted the proposed Project overlies the Cherry Creek, Tobacco Garden, Keene, and Bonnie Peer glacial drift aquifers; the Cherry Creek and Tobacco Garden aquifers are designated sensitive groundwater areas. Also, several domestic and stock water supply wells are located in the vicinity of the proposed Project route. Care should be taken to avoid spills of any materials that may have an adverse effect on groundwater quality and all spills must be immediately reported to NDDH and appropriate remedial actions performed.

A record of this communication can be found in Exhibit D.

6.12 NORTH DAKOTA STATE WATER COMMISSION

Appropriation of water from the State's water resources is permitted by the NDSWC. Typically, ONEOK will truck in water for hydrostatic testing of the pipe and/or dust control, rather than appropriating water from a nearby surface or groundwater source. As such, ONEOK does not expect that the Project will require a permit from the NDSWC. Should the scope of the Project change and a permit be required,

ONEOK will apply for permit coverage through the NDSWC at that time. If a permit is obtained for water appropriation, it will be filed with the NDPSC upon receipt.

On August 1, 2018, Project notification was initiated with the NDSWC seeking confirmation regarding NDSWC-administered sovereign lands, water supply systems, projects, and other programs within the Project Corridor. A response from the NDSWC was received on August 24, 2018. The NDSWC stated that their initial review indicated the Project would not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the Project, a Temporary Water Use permit will be required.

NDSWC also provided guidance on appropriate actions if observation wells are encountered during construction, as well as contact information for the local floodplain administrator. Based on ONEOK's experience, floodplain permits are not typically required for underground utilities within floodplains; however, ONEOK will confirm this with the local floodplain administrator.

NDSWC also provided contact information for their Office of State Engineer (OSE) Engineering and Permitting Section and requested ONEOK notify the OSE of the Project's impacts to water resources such as streams and rivers, agricultural drains, wetlands, dams, or other water features to determine if a permit may be required. ONEOK does not anticipate any permanent impacts or alterations of any water features, and thus assumes a permit from OSE will not be required. ONEOK will provide details of impacts to water features to OSE to confirm permitting requirements. If changes to the Project occur resulting in the need for a permit from OSE, ONEOK will file a copy of the permit with NDPSC.

A record of this NDSWC communication can be found in Exhibit D.

6.13 NORTH DAKOTA DEPARTMENT OF TRUST LANDS – SCHOOL TRUST LANDS

On August 2, 2018, ONEOK provided Project notification to the North Dakota Department of Trust Lands (NDDTL) Surface Management Division requesting comments regarding the presence of State School Trust Lands within the Project Corridor. A preliminary review of the Surface Trust Land dataset (NDGIS, 2018a) concluded no School Trust Lands intersect the Project Corridor. In a response received by ONEOK on August 13, 2018, the NDDTL stated that any proposed projects crossing NDDTL property would need to apply for a Rights of Way permit. The NDDTL confirmed the presence of School Trust Lands within the study area; however, none of these parcels are directly crossed by the Project.

Table 6.13-1
NDDTL School Trust Lands in Proximity to Demicks Lake Pipeline

County	Township	Range	Section
McKenzie	147	104	36
McKenzie	149	100	16
McKenzie	151	96	16
McKenzie	151	99	36

6.14 NORTH DAKOTA DEPARTMENT OF TRUST LANDS – MINERAL TRUST LANDS

On August 2, 2018, ONEOK provided Project notification to the NDDTL Minerals Management Division requesting comments regarding the presence or absence of State Mineral Trust Lands within the Project Corridor. A preliminary review of the NDDH Mineral Trust Land dataset (NDGIS, 2018b) identified State Mineral Trust Lands located within the Project Corridor. The NDDTL Minerals Management Division responded on August 14, 2018 and concurred with ONEOK's findings. The following State Lands with mineral interests are directly crossed by the Route. Records of communication with the NDDTL can be found in Exhibit D.

Table 6.14-1
NDDTL Mineral Trust Lands in Proximity to Demicks Lake Pipeline

County	Township	Range	Section
McKenzie	147	104	36
McKenzie	149	100	16
McKenzie	151	96	16
McKenzie	151	99	36

6.15 WESTERN AREA WATER SUPPLY AUTHORITY

On August 2, 2018, Project notification was initiated with the Western Area Water Supply Authority (WAWSA) seeking information related to rural water supply systems and WAWSA-administered projects. The original consultation letter was returned as undeliverable and a follow-up was sent via mail and email on August 27, 2018. A WAWSA representative confirmed receipt of the follow-up correspondence; however, a formal response is pending. A record of this communication can be found in Exhibit D.

6.16 MCKENZIE COUNTY BOARD OF COMMISSIONERS

On August 2, 2018, Project notification was initiated with the McKenzie County Board of Commissioners seeking information regarding any local ordinances, permits, or other resources under the Board's jurisdiction which may be applicable to the Project, as well as a summary of any permit processes and anticipated timeframes, if applicable. A response from the Board of Commissioners is pending. A record of this communication can be found in Exhibit D.

6.17 MCKENZIE COUNTY WATER RESOURCE BOARD

On August 2, 2018, Project notification was initiated with the McKenzie County Water Resource Board seeking comment on the following topics:

- Locations of any county-regulated drains, ditches, and/or other drainage features;
- Any special requirements, restrictions, or specifications regarding constructing pipelines across or under county-regulated drainage features;
- Any local ordinances related to drainage; and
- Any applicable permits with a summary of the permit process and anticipated timeframes.

A response from the Water Resource Board is pending. A record of this communication can be found in Exhibit D.

6.18 MCKENZIE COUNTY WEED CONTROL BOARD

On August 2, 2018, Project notification was initiated with the McKenzie County Weed Control Board seeking comment on the following topics:

- Confirmation that the list of noxious weeds obtained by ONEOK is correct and current;
- Known locations of noxious and/or invasive weed species along the proposed route; and
- Guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options.

ONEOK received a response from the Weed Control Board on August 3, 2018 which stated ONEOK would be required to complete and submit a McKenzie County Weed Management Form. ONEOK will complete and submit the form to McKenzie County for review and approval prior to construction. A record of this communication can be found in Exhibit D.

7.0 CRITERIA

The information presented in this section was developed to demonstrate conformance with the NDPSC's siting criteria for transmission facilities. ONEOK has conducted a thorough inventory of the Project Corridor and evaluated the resources within it to assess the compatibility of the Project with the NDPSC's siting criteria. The following sections identify and discuss the presence or absence of siting criteria within the Project Corridor and Route. Where siting criteria are identified, the location of each is shown on the maps in Exhibits B.2-B.4.

7.1 EXCLUSION AREAS

Exclusion areas are geographic areas that must be excluded in the consideration of a route for a transmission facility. A buffer zone of a reasonable width must also be included to protect the area. The following table and text identify and discuss exclusion areas within the Project Corridor.

Table 7.1-1
Exclusion Areas
NDPSC Certificate of Corridor Compatibility and Route Permit

Exclusion Area	Located within Study Area	Located within the Project Corridor	Crossed by Route	Administering Agency
National Parks	No	No	No	U.S. National Park Service (USNPS)
National Memorial Parks	No	No	No	USNPS
National Historic Sites and Landmarks	No	No	No	USNPS
National Natural Landmarks	No	No	No	USNPS
National Wilderness Areas	No	No	No	USNPS; USFS
National Monuments	No	No	No	USNPS
State Parks	No	No	No	NDPR
State Historic Sites	No	No	No	State Historical Board
State Monuments	No	No	No	State Historical Board
State Historical Markers	No	No	No	State Historical Society
State Archaeological Sites	Yes	Yes	No	State Historical Board
State Nature Preserves	No	No	No	State Park Service
County Parks and Recreation Areas, Municipal Parks, and Parks under Other Governmental Jurisdiction	No	No	No	Various
Areas Critical to the Life Stages of Threatened or Endangered Animal or Plant Species	See Sections 5.3 and 6.2			USFWS
Areas Where Animal or Plant Species Unique or Rare to the State Would be Irreversibly Damaged	No	No	No	Various
Areas within 1,200 feet of an ICBM facility	No	No	No	USDOD

Table 7.1-1 Exclusion Areas NDPSC Certificate of Corridor Compatibility and Route Permit				
Exclusion Area	**Located within Study Area**	**Located within the Project Corridor**	**Crossed by Route**	**Administering Agency**
Areas within 30 feet of direct line of ICBM launch facility	No	No	No	USDOD

7.1.1 Federal Resource Review

Review of digital data (U.S. National Park Service [NPS], July 2018) available from USNPS, the USFS, and the USFWS shows that there are no national parks, national memorial parks, national historic sites and landmarks, national wilderness areas, or national monuments located within the Project Corridor or Route. Therefore, there will be no direct impacts to national parks, sites, monuments, or wilderness. The nearest federally managed park land is the Theodore Roosevelt National Park (North Unit) located approximately 5 miles south and east of the Project.

While ONEOK designed the Route to avoid previously recorded NRHP-eligible cultural sites identified during in its Class I Literature review, field surveys for the Project discovered previously unknown cultural sites within the Corridor and along the Route (see Sections 5.1 and 6.1.2). Of these newly identified sites, one NRHP-eligible site was discovered which could not be avoided and evaluative testing was completed in consultation with the North Dakota SHPO. The testing identified a non-contributing component to the eligibility of the site that would allow the proposed Route to cross the site area; avoiding impacts to the eligible portions of the site.

ONEOK is planning to submit its Class III Cultural Resources Report to the USFS in November 2018, who will then submit it to the North Dakota SHPO for review. After the report is submitted to SHPO, ONEOK will work with the SHPO to avoid impacts to NRHP-eligible cultural sites and will file its concurrence letter from SHPO when available. As such, impacts to exclusion areas will be avoided.

7.1.2 State Resource Review

Review of digital data (NDPRD, 2018) available from the NDPRD indicates that there are no designated or registered state parks, sites, monuments, or nature preserves within the Project Corridor or Route. Little Missouri State Park is the nearest such area and is located approximately 30 miles southeast of the Project. Therefore, there will be no direct impacts to state parks, sites, monuments, or nature preserves.

7.1.3 County Resource Review

Review of publicly available data shows that there are no county parks and recreational areas, municipal parks, or parks owned or administered by other governmental subdivisions within the Project Corridor or crossed by the Route. The nearest such areas are located in the vicinity of Watford City approximately 2 miles southeast of the Project. Therefore, no direct impacts are anticipated.

7.1.4 Areas of Critical Habitat

No USFWS-designated critical habitat was identified during desktop analysis of the Project Corridor. The nearest USFWS-designated piping plover critical habitat is located approximately 12 miles northeast of the Project area along the Missouri River. The nearest known Dakota skipper designated critical habitat is located 12 miles northeast of the Project.

As described in Section 5.3, ONEOK commissioned natural resource surveys of the Corridor. The scope of the surveys included documentation of the presence or absence of federally listed and state listed species of concern or evidence of suitable habitats for these species. The results of these field studies are detailed in Section 5.3.1, and planned mitigation measures are discussed in Section 9 of this document. Consultations with USFWS are ongoing and formal correspondence regarding federally-listed species will be provided when received.

7.1.5 Areas where Unique or Rare Species Rare to the State Would Be Irreversibly Damaged

Based upon field surveys and agency consultations, the proposed Project will not result in irreversible impacts that are detrimental to plant and animal species or their habitats that are unique or rare to the State. The implementation of the proposed construction plans (see Section 9) and full compliance with environmental permits will fully mitigate the potential for irreversible damage.

7.1.6 Areas within 1,200 Feet of ICBM Facility or 30 Feet of Direct Line of Launch Facility

Based upon information compiled by the UWYO regarding current and historic missile site locations (UWYO, 2018), which was comprised of both tabular data describing these sites and supported with additional aerial imagery for each Minot Air Force Base Minuteman ICBM site, ONEOK has confirmed the absence of ICBM launch or launch control facilities located within 1,200 feet of the Route. This was confirmed through consultation with the USDOD as described in Section 6.6.

7.2 AVOIDANCE AREAS

Avoidance areas are geographic areas that may not be considered in the routing of a transmission facility unless it is shown there is no reasonable alternative under the circumstances. A route may contain avoidance areas; however, avoidance areas may not encompass more than 50 percent of the Project Corridor width at any point, unless there is no reasonable alternative. The following table and text identify and discuss avoidance areas within the Project Corridor.

Table 7.2-1
Avoidance Areas
NDPSC Certificate of Corridor Compatibility and Route Permit

Avoidance Area	Located within Study Area	Located within Project Corridor	Impacted by Route	Administering Agency
National Historic Districts	No	No	No	State Historic Society
National Wildlife Areas	No	No	No	USFWS

Table 7.2-1 Avoidance Areas NDPSC Certificate of Corridor Compatibility and Route Permit				
Avoidance Area	**Located within Study Area**	**Located within Project Corridor**	**Impacted by Route**	**Administering Agency**
National Wild, Scenic, or Recreational Rivers	No	No	No	Heritage Conservation Recreation Service, State
NWRs	No	No	No	USFWS
National Grasslands	Yes	Yes	Yes	USFS
State Wild, Scenic, or Recreational Rivers	Yes	Yes	No	State of North Dakota Legislative Assembly
State Game Refuges	No	No	No	NDGFD
State Game Management and Management Areas	No	No	No	NDGFD
State Forests	No	No	No	State Forest Service
State Forest Management Lands	No	No	No	State Forest Service
State Grasslands	No	No	No	State Park Service
Historical Resources not specifically designated as Exclusion or Avoidance Areas	See Sections 5.1 and 6.1.2			SHPO
Geologically Unstable Areas	Yes	Yes	No	State Geological Survey
Within 500 Feet of a Residences, School, or Place of Business	Yes	Yes	No	Landowner
Reservoirs	No	No	No	USACE; NDSWC
Municipal Water Supplies	No	No	No	NDSWC
Water Sources for Organized Rural Water Districts	No	No	No	NDSWC
Irrigated Land[1]	N/A	N/A	N/A	NDSWC
Areas of Recreational Significance not designated as exclusion areas	No	No	No	Various

[1] Irrigated land does not apply to underground transmission facilities.

7.2.1 Federal Resource Review

ONEOK conducted a comprehensive review of publicly available information and field studies of the Project Corridor. This review confirmed the absence of designated or registered historic districts, refuges, and wild, scenic, or recreational rivers within the Project Corridor.

The Project crosses lands managed by the USFS as a portion of the LMNG. ONEOK selected the crossing area to be within a previously established pipeline corridor for the majority of the route and a Special Use Permit with the USFS is currently pending.

7.2.2 State Resource Review

ONEOK conducted a review of publicly available resources and concluded no designated or registered game refuges, game management areas, management areas, forests, forest management lands, or grasslands are within the Project Corridor.

7.2.3 Historical Resources Not Designated as Exclusion/Avoidance Areas

See Section 5.1 for a discussion of historical resource desktop and field studies conducted for completion of Class I and Class III cultural resource reports and see Sections 6.1.2 and 6.9 for a discussion of agency consultations conducted with the SHPO regarding the Project.

7.2.4 Geologically Unstable Areas

A desktop review of the NDGS landslide mapping data was completed. Review of landslide deposit data from the NDGS confirmed no landslide deposit are crossed by the route; however, one landslide deposit area was noted within the Project Corridor near milepost 60.1 (see Exhibit B.2).

North Dakota has not experienced an earthquake of sufficient magnitude to damage steel welded pipe or structural steel structures in recorded history. Sinkholes are known to occur in the region, but these are related to subsurface mining activities as opposed to limestone dissolution. According to review of NDPSC abandoned mine data, no mining activities are located within the Project Corridor.

7.2.5 Areas within 500 Feet of a Residence, School, or Place of Business

Based on a review of aerial photography as well as discussions with landowners, ONEOK has identified five structures which have been confirmed as occupied residences or businesses within 500 feet of the route. ONEOK has obtained a landowner waiver for one of these structures (Exhibit E) and will be filing the remaining waivers as they are obtained.

7.2.6 Reservoirs and Municipal Water Supplies

ONEOK has confirmed the absence of reservoirs or municipal source water protection areas for community water supply sources within the Project Corridor.

7.2.7 Water Sources for Organized Rural Water Districts

ONEOK has confirmed the absence of known water sources for organized rural water districts within the Project Corridor. A response from WAWSA is pending and will be included in Exhibit D when received (see Section 6.15).

7.2.8 Irrigated Land

Irrigated land does not apply to underground transmission facilities.

7.2.9 Areas of Recreational Significance but Not Designated Exclusion Areas

ONEOK has confirmed the absence of areas of recreational significance within the Project Corridor.

7.3 SELECTION CRITERIA

The State of North Dakota Rules Section 69-06-08-02.3 (NDR, 2018) specifies selection criteria considered in designating a pipeline corridor or route. These criteria are used to determine whether adverse effects

from the location, construction, and maintenance of the facility will be at an acceptable minimum or whether these effects will be managed and maintained at an acceptable minimum.

The selection criteria that were considered for the Project include:

- Agricultural Production;
- Family Farms and Ranches;
- Land Suitable for Irrigation;
- Surface Drainage and Groundwater Flow Patterns;
- Sound Sensitive Areas;
- Visual Effects;
- Extractive and Storage Resources;
- Wetlands, Woodlands, and Wooded Areas;
- Communication or Electric Control Facilities;
- Human Health and Safety;
- Animal Health and Safety; and
- Plant Life.

Potential impacts and measures to avoid and minimize these impacts, as they relate to each of the selection criteria, are discussed in the following subsections.

7.3.1 Agricultural Impacts

Agricultural Production: The Route would temporarily affect approximately 724 acres of private land in North Dakota, of which approximately 339 acres are located on privately owned cropland (USGS, 2014). The majority of the land crossed can be characterized as either agricultural or natural vegetative cover. Once the construction is complete, the land will be restored to its pre-construction contours and land use. ONEOK will provide settlements to landowners for crop loss resulting from Project construction.

Family Farms and Ranches: The Route would temporarily affect approximately 724 acres of private land in North Dakota, of which approximately 331 are comprised of privately-owned farms and/or ranches.[4] Once construction is complete, the land will be restored to its pre-construction contours and land use. ONEOK will negotiate easements with all affected landowners. The Project will have no permanent impacts to lifestyle or farm/ranch operations once construction is completed.

The location of pipeline markers is defined under 49 CFR part 195 for pipelines. ONEOK works with local landowners and county officials to ensure that pipeline markers are located where required but also in an acceptable location for these parties. These markers are to be placed in full view so that they are not accidentally damaged by nor cause damage to landowner or county equipment.

Lands Suitable for Irrigation: This section is not applicable to buried pipelines (NDAC 69-06-08-02(2)(h)).

Surface Drainage: Standard pipeline construction techniques to be employed would not modify existing surface drainage patterns. Care will be taken throughout the construction process to minimize environmental impacts, including modification of drainage patterns. During restoration, those areas that were disturbed during construction will be restored, the local topography will be restored to its original contours, vegetation will be re-established and impacts will be minimal and temporary. BMPs will be

[4] Approximately by sum of grassland/herbaceous and hay/pasture land use types (USGS, 2014)

implemented in accordance with the Project-specific SWPPP, which will be modeled after the NDDH Construction Storm Water General Permit requirements. Permanent impacts to surface drainage will be minimized to the maximum extent possible.

Ground Water: Well data has been recorded by the State Water Commission for the Project Area. Well data indicates that groundwater is generally located at least 80 feet below the surface. The required tie-in excavations for the proposed Project are not anticipated to reach these depths as such no impact to ground water is anticipated. If groundwater is encountered during construction activities, it will be dewatered in accordance with ONEOK's construction plans (see Section 9) and applicable state and/or local permits.

7.3.2 Sound-Sensitive Land Uses

Temporary increases in ambient sound will occur in the areas immediately surrounding active construction. The majority of the Project is located in a rural setting away from major population centers. Construction will take place over a period of approximately 9 months; however, no one area will have ongoing daily activity, as construction will progress from one area of the route into the next. Construction activities at any given point along the Project are generally limited to daylight hours. The use of heavy equipment or trucks will be the primary noise generating activity during construction and excavation. The level of impact may vary by equipment type, duration of construction activity, and the distance between the noise source and the receptor. Once constructed and in-service, normal pipeline operations are not audible. Construction and operation of the Project is expected to comply with applicable noise requirements and local ordinances.

7.3.3 Visual Effect on Adjacent Areas

The proposed pipeline would include seven mainline block valves, one pig launcher facility, and one pig launcher and receiver facility. The valves are typically enclosed with fences which are padlocked shut against vandalism and accidental activation. The location will be clearly marked with a small placard that details ownership and contact information. The visual piping and equipment will be finished and maintained with a tan or white painted surface. These features are common throughout the landscape and are not obtrusive. The pig launcher and launcher/receiver facility will both be located in existing ONEOK facilities that are already developed and will cause only minor incremental visual impacts. No other permanent aboveground features are proposed as a part of the Project.

7.3.4 Extractive and Storage Resources

This Project will not affect any known extractive or storage resources. Impacts on future extractive development would not constitute a substantial loss of resource availability because of the narrow, linear nature of the pipeline ROW relative to the expanse of areas with resource potential.

7.3.5 Wetlands, Woodlands, and Wooded Areas

A comprehensive desktop review of published data, including aerial photography and NWI data, was conducted to assess the presence or absence of wetlands, woodlands, and wooded areas. The review of the proposed Project Corridor confirmed the presence of these resources. In addition, ONEOK commissioned field surveys to further identify and record the locations of these resources along the Route. The results of these field studies will be used to implement construction measures to avoid or

minimize impacts to wetlands, woodlands, and wooded areas. Land use and land cover information is shown in Exhibit B.3. The proposed mitigation is detailed in Section 9 of this document and detailed survey results can be found in Exhibit C.

7.3.6 Radio and TV Reception and Other Communication or Electronic Facilities

Based on review of publicly available information, no radio and TV reception and other communication or electronic facilities are located within the Project Corridor; however, some of these facilities are located with the one-mile study area (see Exhibit B.4). The proposed Project is a buried, underground utility. No impacts on television or radio reception or communication or electronic control facilities are anticipated to occur as a result of the Project.

7.3.7 Human Health and Safety

During construction, residences and businesses in proximity to construction activities will be exposed to short-term increases in construction-related noise and dust. The construction ROW, access roads, and spoil piles near residential and commercial areas will be watered down as needed to control fugitive dust emissions during construction. Following construction, measures to stabilize and revegetate the ROW will be taken promptly to minimize further dust emissions. Heavy construction equipment required for pipeline installation will generate unavoidable short-term increases in sound levels. Increases in noise levels due to equipment operation will be limited to the period of active construction and will primarily be avoided during night-time hours (10pm – 7am). Twenty-four-hour construction activities are generally limited to completing tasks that commenced during the day and where ceasing to complete could jeopardize the installation. This largely applies to some phases of HDDs, various bores, and occasional aboveground facility construction.

The USDOT's pipeline standards are published in Part 195 of Title 49 of the CFR. The regulations are intended to ensure adequate protection of the public and to prevent accidents and failures. Part 195 addresses petroleum pipeline safety issues, specifying material selection and qualification, minimum design requirements, and protection from internal, external, and atmospheric corrosion.

Actual installation of the pipeline and all construction and testing records will be subject to inspection. All pipe installed along the Project will be externally coated with a fusion bonded epoxy to resist corrosion. Once installed, internal inspections will be conducted on the pipeline at regular intervals using in-line inspection technology. The pipeline will undergo hydrostatic testing above maximum allowable operating pressure to ensure its integrity and will be placed into service only after successful completion and commissioning to verify compliance with all construction standards and requirements.

ONEOK will ensure that a public education and outreach program is developed to promote public awareness of pipelines and pipeline safety in accordance with USDOT requirements. Proper signage and warnings at road and highway crossings, railroad crossings, navigable rivers, and other locations will alert the public to the presence of underground lines and to provide information, contact numbers, and emergency data.

7.3.8 Animal Health and Safety

ONEOK will avoid, minimize, and mitigate impacts to protected species to the maximum extent practicable. ONEOK is continuing to consult with agencies regarding protected species (see Sections 5.3.1,

6.1.1 and 6.2). Impacts to the majority of animal species will be short-term and temporary, and the construction workspace will be restored to its pre-construction conditions following installation of the pipe.

7.3.9 Plant Life

Field surveys conducted for the Project did not identify any critical habitat within the Project Corridor (see Exhibit C). However, field surveys did identify sensitive plant species in various locations within the Project Corridor (see Exhibit C). All areas disturbed by construction of the Project will be revegetated in accordance with applicable agency standards and landowner requests. In addition, ONEOK will complete tree and shrub mitigation per NDPSC guidelines.

ONEOK is consulting with the USFS regarding impacts to RFSS plant species on USFS lands. ONEOK will continue to work with the agency to avoid and minimize impacts to these species to the maximum extent practicable (see Sections 5.3.4 and 6.1.1).

7.4 POLICY CRITERIA

7.4.1 LOCATION AND DESIGN

The Project facilities are being sited in accordance with the North Dakota Energy Conversion and Transmission Facility Siting Act (NDCC chapter 49-22). Efforts to avoid and minimize environmental and human impacts are ongoing. Additionally, discussions with landowners regarding placement of the pipeline on respective tracts are taking place.

Facilities will be constructed and operated according to all applicable regulations. The Project will meet or exceed state and federal safety requirements and will be designed in accordance with 49 CFR part 195. All persons and firms providing service to ONEOK are required to conduct their work in compliance with environmental conditions, permit authorizations, and applicable regulations and will be held accountable for their actions.

7.4.2 TRAINING AND UTILIZATION OF IN-STATE LABOR

Construction of the Project will require at least 300 workers in North Dakota.

7.4.3 ECONOMIES OF CONSTRUCTION AND OPERATION

The Demicks Lake Pipeline project will be an additional North Dakota asset for ONEOK. In 2017, ONEOK paid ad valorem tax in excess of $375,000. Once constructed and in-service, the continued costs of maintenance and operation of the proposed pipeline are minimal.

7.4.4 USE OF CITIZEN COORDINATING COMMITTEES

ONEOK, Inc. has established and maintains a good relationship with the local residents through its long-term regional presence operating various assets in the area. Through these relationships, ONEOK, Inc. has maintained several grassroots communication channels to inform local residents regarding the developments associated with the Project. ONEOK, Inc. will continue to maintain contact with local

government officials. Through this contact, Project-related information will be exchanged and should concerns arise, ONEOK, Inc. will work with officials to resolve those issues.

7.4.5 COMMITMENT OF PORTION OF TRANSMITTED PRODUCT FOR USE IN STATE

The proposed Project will interconnect with ORM's Demicks Lake Natural Gas Processing Plant. The products handled, transferred, and shipped at the Demicks Lake Natural Gas Processing Plant and through the Project pipeline will be delivered to markets located out of the state.

7.4.6 LABOR RELATIONS

ONEOK maintains positive labor relations with its staff and contract work force and does not anticipate encountering any adverse labor relations on this Project. ONEOK is an equal opportunity employer committed to diversity and inclusion. Additionally, the labor market in the region is generally supportive of the oil and gas industry.

7.4.7 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

ONEOK is committed to protecting the environment during all phases of construction of the Project. Before construction, environmental field surveys of the pipeline route were conducted to identify wetlands, streams, threatened and endangered species and their habitat, cultural resources, agricultural or forested areas, and special land-use designations. In consultation with state and federal agencies, ONEOK developed mitigation plans to protect these sensitive areas during and after construction. Once the pipeline is operational, ongoing monitoring and maintenance activities will be implemented to ensure the safe operation of the pipeline.

7.4.8 COORDINATION OF FACILITIES

ORM owns and operates the Garden Creek I and II Natural Gas Processing Plants, Bear Creek Natural Gas Processing Plant, Lonesome Creek Natural Gas Processing Plant, Stateline I and II Natural Gas Processing Plant, Grasslands Natural Gas Processing Plant, as well as the Demicks Lake Natural Gas Processing Plant in North Dakota. Coordination of the proposed Project is anticipated to be seamless, as the proposed Project will provide critical take-away transport of NGLs allowing all Plants owned by a ONEOK affiliate and other third parties connected to ONEOK's pipelines to operate at full capacity.

7.4.9 MONITORING IMPACTS

ONEOK has established and maintained positive landowner and community relationships throughout the region through its open communication and commitment to corporate citizenship standards that are based on integrity. ONEOK monitors landowner concerns through its ROW department and responds to all reasonable requests. In a similar manner, ONEOK monitors community concerns and responds to all reasonable concerns brought to its attention by local community leaders. ONEOK will select a contractor for construction of the Project and will coordinate the oversight responsibilities for construction activities with this contractor throughout the Project. Environmental responsibilities will be coordinated in the same manner.

During operation, pipeline control personnel provide 24-hour electronic surveillance of ONEOK pipeline operations. In addition, ONEOK uses a number of inspection methods and processes to mitigate corrosion and minimize the potential for third-party damage to the pipelines. These include regular ROW patrols, inspections of cathodic protection equipment, and coordination with the North Dakota One-Call Center to mark the pipeline or to be present during excavation to ensure the public's safety and the integrity of the pipeline.

ONEOK designs, constructs, operates, and maintains its pipeline systems to ensure safety and reliability. If a leak were detected, the company is able to stop the flow of product remotely from its control center. ONEOK continues to establish and maintain contact with appropriate fire, police, and other public officials. This communication establishes the responsibility and resources of each government organization that may respond to a pipeline emergency. ONEOK also acquaints officials with the abilities of the pipeline operator when responding to an emergency. In all cases, emergency responders are directed to protect people first, then the environment next, and then property.

7.4.10USING EXISTING AND PROPOSED ROWS AND CORRIDORS

ONEOK selected the Project alignment to maximize the use of existing utility corridors. Of the 75-miles of the Route in North Dakota, approximately 70 percent (52 miles) of the Project is co-located with existing pipeline corridors.

7.4.11OTHER EXISTING OR PROPOSED TRANSMISSION FACILITIES

ONEOK, Inc. is one of the largest publicly traded master limited partnerships and is a leader in the gathering, processing, storage, and transportation of natural gas and NGLs in the U.S. The company operates NGLs systems connecting NGL supply in the Rocky Mountain and Mid-Continent regions with key market centers. In addition, the company owns and operates:

- 7,100 miles of NGL gathering pipelines;
- 4,370 miles of NGL distribution pipelines;
- 26 billion cubic feet of storage capacity;
- 7 NGL fractionators;
- 8 NGL product terminals; and
- 840,000 bpd of net NGL fractionation capacity.

ONEOK, Inc. has owned and operated natural gas pipelines since 1906.

8.0 OTHER FACTORS CONSIDERED

8.1 PUBLIC HEALTH, WELFARE, NATURAL RESOURCES, AND THE ENVIRONMENT

Refer to Sections 5.0, 7.1, 7.2, 7.3, 7.4.3, 7.4.7, and 7.4.9.

8.2 TRANSMISSION TECHNOLOGIES AND SYSTEMS DESIGNED TO MINIMIZED ADVERSE ENVIRONMENTAL EFFECTS

The Project design is consistent with existing pipeline technologies. A variety of measures will be taken to avoid, minimize, or mitigate impacts to sensitive resources, including implementing trenchless construction (i.e., HDD, bores), narrowing ROW widths, rerouting, and route deviations, etc. Trenchless techniques avoid the need for open cut trenches, thereby minimizing environmental impacts and eliminating ground-level surface hazards in sensitive areas along the route. BMPs will be used to minimize impacts from clearing, trenching, and reclamation of the construction ROW. Potential impacts to environmentally sensitive areas will be either avoided through rerouting, HDD/bore, or by protecting sites during construction.

ONEOK's Construction Mitigation and Restoration Plan (CMRP) will prescribe construction techniques and mitigation measures that will be employed to minimize the effects of construction on environmental resources. Mitigation measures are also discussed in Section 9 of this application. The Project does not include new energy conversion or transmission technologies that are expressly designed to minimize adverse environmental effects.

8.3 BENEFICIAL USES OF WASTE ENERGY FROM A PROPOSED ENERGY CONVERSION FACILITY

The Project does not involve new energy conversion facilities; as such, the potential for beneficial uses of waste energy from a proposed energy conversion facility does not apply to the Project.

8.4 UNAVOIDABLE ADVERSE DIRECT AND INDIRECT ENVIRONMENTAL EFFECTS

Unavoidable adverse direct and indirect environment effects will be temporary, short-term, and will be minimized to the extent practicable. The Project will be co-located and run parallel to existing infrastructure (e.g., pipelines, utility corridors, railway, etc.) to the extent possible. ONEOK will implement measures to mitigate potential impacts to resources such as vegetation, wildlife, agricultural, transportation, and noise levels. Refer to Section 9 for a complete description of mitigation measures.

8.5 CORRIDOR OR ROUTE ALTERNATIVES DEVELOPED DURING THE HEARING THAT MINIMIZE ADVERSE EFFECTS

A description of the alternatives analyzed in the design of the Project is presented in Section 4 of this application. The Project Corridor and Route have been designed based on landowner engagement, stakeholder outreach, civil surveys, environmental surveys, and constructability analysis, among other

considerations. Reroutes of varying lengths and for a variety of reasons have been made to minimize adverse effects to sensitive areas. ONEOK will continue to adjust the Route based on additional constructability concerns and necessary feature avoidance. ONEOK will participate in the hearing process and will address any alternatives developed during the process, as applicable.

8.6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF NATURAL RESOURCES IF DESIGNATED

The Project was designed to co-locate the pipeline within existing linear infrastructure (i.e., pipeline, utility, road, and railroad corridor) to the extent practicable. This design minimizes irreversible or irretrievable commitments of natural resources due to conversion of greenfield to industrial uses and optimizing existing fragmentation. Generally, all areas impacted by pipeline construction (except for aboveground facilities) will return to previous land use. Long-term vegetation impacts will result from converting wooded areas to herbaceous/scrub shrub areas to comply with federal pipeline regulations, ensure safety and integrity of the pipeline, and facilitate routing aerial inspections.

The Project will not result in an irreversible and irretrievable commitment of natural resources.

8.7 DIRECT AND INDIRECT ECONOMIC IMPACTS OF THE FACILITY

Estimated total spending for construction of the Project is $125 million. This estimate includes construction of the pipeline, engineering, and real estate services, easement payments, mitigation payments, and other support services. Construction outputs for the Project include employment, labor income, and production spending. The Project is expected to employ at least 300 workers for construction of the Project. These economic impacts will be realized during construction in 2019 and throughout operations and maintenance annually starting in 2019.

North Dakota imposes taxes on sales, use, gross receipts and lodging, and individual income. Local governments may impose taxes on the same tax bases; however, most unincorporated areas do not impose local option sales taxes. The Project will contribute directly and indirectly to tax bases at the state and local levels.

Construction of this Project would provide firm, reliable service for an additional 40,000 bpd of NGL and provide a critical transportation link between the Demicks Lake Natural Gas Processing Plant and ONEOK's NGL transmission system for delivery to facilities in the Mid-Continent and Gulf Coast for additional processing prior to distribution to various markets.

8.8 EXISTING PLANS FOR OTHER DEVELOPMENTS IN THE VICINITY

ONEOK, Inc. the parent company of ONEOK Bakken Pipeline, L.L.C., is the largest independent operator of natural gas gathering and processing facilities in the Williston Basin, with a natural gas gathering system of more than 38,000 miles and more than 3 million net acres where production is dedicated to its systems. ONEOK's 10-year plan describes the company's plans for future development in the region.

In addition to the Project, ONEOK is aware of several other current or foreseeable projects in McKenzie County, North Dakota, undergoing NEPA review, or applications are being developed to meet state permitting requirements. These projects include three new NGL pipelines, two crude oil gathering lines, one fiber optic cable, two pipeline conversion projects (minimal new construction), three natural gas

processing plants or plant expansions, and one residential subdivision outside of Watford City. In addition, according to the NDIC – Oil and Gas Division (NDIC 2018), there are 27 active drilling rigs in McKenzie County, and there are 7 pending well pad or well pad/expansions proposed on the LMNG.

Based on a review of the scope and location of present and foreseeable projects, ONEOK has concluded that this Project is not in conflict with any known or proposed developments planned in the area.

8.9 RECYCLING OF CONVERSION BYPRODUCTS AND EFFLUENTS

Recycling of conversion byproducts and effluents is not applicable to this type of project.

8.10 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

ONEOK is committed to conducting its business in compliance with all applicable environmental laws and regulations. These laws, regulations, and standards are designed to safeguard the environment, human health, wildlife, and natural resources.

ONEOK will conduct its activities with the objectives of providing a healthful and safe workplace for its employees and preventing accidents and environmental incidents. All persons and firms providing service to ONEOK are required to conduct their work in compliance with environmental conditions, permit authorizations, and applicable regulations and will be held accountable for their actions in that regard.

8.11 ENERGY CONSERVATION THROUGH USE OF A PRIMARY ENERGY SOURCE OR RAW MATERIAL

ONEOK is committed to energy conservation through management of energy costs and energy usage in the operations of the Project.

8.12 NON-RELOCATION OF RESIDENTS

No residents will be relocated as a result of the Project.

8.13 DEDICATION OF AN AREA ADJACENT TO THE FACILITY FOR LAND USE SUCH AS RECREATION, AGRICULTURE, OR WILDLIFE MANAGEMENT

ONEOK does not own property adjacent to the proposed Project suitable for recreation, agricultural, or wildlife management purposes. The current land use of properties adjacent to the Project is primarily agricultural/range land (see Exhibit B.3).

The Project will result in the development of a buried pipeline and other industrial type ancillary facilities. No land is being acquired for the Project. Therefore, no areas are proposed for dedication.

8.14 SECONDARY USES OF APPROPRIATE ASSOCIATED FACILITIES FOR RECREATION AND THE ENHANCEMENT OF WILDLIFE

The Project will result in the development of a buried pipeline and other industrial type ancillary facilities. As such, these developments are not typically suitable for recreational or wildlife application.

8.15 PROBLEMS RAISED BY FEDERAL, STATE, AND LOCAL AGENCIES

ONEOK provided Project-specific notification to various federal, state, and local agencies; through this notification process, these agencies have the opportunity to identify possible sensitive environmental resources within the study area and any related agency concerns. Section 6 of this application summarizes the consultations that have taken place to date. ONEOK is actively working with federal, state, and local agencies and will address problems that are raised. A complete record of these agency communications is provided in Exhibit D.

9.0 MITIGATION MEASURES

ONEOK has developed, or is in the process of developing, several Project control documents that will be utilized during construction activities to minimize and mitigate impacts to environmental resources. These plans will be incorporated into contract documents and enforced by ONEOK:

- CMRP
    - Comprehensive control document that describes general mitigation measures related to erosion and sedimentation, stream/wetland crossings, highway/rail crossings, dewatering and hydrostatic testing, and revegetation.
- MBTA Plan
    - Describes measures to be taken to ensure no impacts occur to federally protected migratory birds and eagles/raptors or their habitat.
- SWPPP
    - Outlines construction stormwater management and erosion/sediment controls.
- SPCC
    - Outlines spill prevention and BMPs and provides details on spill response and notification procedures in the event of a spill.
- HDD Inadvertent Release Control and Mitigation Contingency Plan
    - Provides measures to minimize the potential for release of drilling mud during HDD operations. Establishes procedures and responsibilities for containment/cleanup in the event of an inadvertent release.
- Unanticipated Discoveries Plan
    - Provides response measures to be followed in the event of a discovery of cultural resources or human remains.
- Revegetation Plan
    - Describes revegetation and permanent restoration of disturbed ROW. Appropriate seed mixes will be incorporated into this plan. This plan also addresses control of noxious and invasive weeds.
- Weed Management Plan
    - Outlines methods to control state- and county-listed noxious weeds. This plan will be submitted to the McKenzie County Weed Management District for review and approval prior to commencing construction.
- Dust Control Plan
    - Outlines methods of controlling fugitive dust emissions caused by construction activities/soil exposure.

The plans, as they relate to specific resources, are referenced in the following sections. In addition to these plans, the Project will be subject to permits from various federal, state, and local agencies (environmental permits are discussed in Section 6). To further ensure compliance with permits, plans, obligations, and commitments, ONEOK will employ one or more Environmental Inspectors (EIs) during the Project. The EI(s) will be responsible for monitoring construction activities and will provide daily reports to ONEOK staff.

9.1 HUMAN ENVIRONMENT

ONEOK will require its construction contractor to clean up, on a daily basis, all personal litter, bottles, and paper deposited by ROW preparation and construction crews. Waste and scrap that is the product of pipeline construction will be removed and properly disposed of in accordance with applicable regulations before construction is completed. To the maximum extent practicable, ONEOK will minimize noise and dust resulting from construction near residential areas.

Paved roads and railroad crossings will be bored; therefore, use of these facilities will not be disrupted as a result of the Project. Gravel roads will be open cut or bored. Open cutting a road will temporarily close it to traffic; however, the road network throughout the Project Area is sufficient that suitable alternative routes are readily available to prevent any significant delays in traffic. Furthermore, the trench can be plated to allow for traffic crossing when construction is not active (i.e., after the end of the work day).

ONEOK will obtain applicable permits prior to conducting road crossings. Temporary signs will be posted at each crossing as appropriate to alert motorists to construction activity. Paved roads and railroads will be bored, which will minimize interference with traffic flow caused by construction activities.

As noted above, ONEOK has developed, or is in the process of developing, several Project control plans, which will be utilized during construction activities to minimize and mitigation impacts.

9.2 TERRAIN AND GEOLOGICAL RESOURCES

ONEOK will, to the maximum extent practicable, restore the area affected by pipeline construction to its pre-construction condition. Restoration will be compatible with the safe operation, maintenance, and inspection of the pipeline. Measures such as slope breakers, erosion control blankets, and re-vegetation will be employed to maintain the stability of slopes along the ROW. No crown of backfill material will be left over the trench in wetlands.

9.3 SOILS

Pipeline construction activities such as clearing, grading, trench excavation, and backfilling, as well as the movement of construction equipment along the ROW, may result in impacts on soil resources (see Exhibit C for a list of soils in the Project area). Clearing removes protective cover and exposes soil to the effects of wind and precipitation, which may increase the potential for soil erosion and movement of sediments into sensitive environmental areas. Grading and equipment traffic may compact soil, reducing porosity and percolation rates, which could result in increased runoff potential. Trench excavation and backfilling could lead to a mixing of topsoil and subsoil and may introduce rocks to the soil surface from deeper soil horizons.

ONEOK will minimize or avoid these impacts to soils by implementing the mitigation measures described in its CMRP. The CMRP will be included in contract documents and enforced as such throughout the duration of the Project. Temporary erosion and sedimentation control measures may include installation of silt fence, straw bales, slope breakers, trench breakers, erosion control fabric, and mulch.

To minimize potential impacts to soil productivity, topsoil will be segregated during trench excavation in agricultural land, unsaturated wetlands, and if applicable, other areas where soil productivity is an important consideration. Unless otherwise requested by the landowner, topsoil in cropland will be

removed to a maximum depth of 12 inches from the trench and spoil storage area and stored separately from the trench spoil. After the trench is backfilled, topsoil will be returned to its approximate original location in the soil horizon.

Compaction of agricultural soils will be minimized by restricting construction activities during periods of prolonged rainfall. Where unacceptable levels of compaction occur in agricultural lands, a chisel plow or other deep tillage equipment will be utilized to loosen the soil during restoration.

ONEOK will retain EIs to monitor the contractor's compliance with applicable requirements to protect soil resources during construction of the Project.

Recognizing the unique terrain and soils within portions of the Project Corridor, ONEOK may commission additional studies to assist in Project planning. Pending final construction design, geotechnical investigations will be initiated at certain HDD locations to assist in planning the set-up, profile, and completion of boring efforts and to minimize risk for unexpected conditions during construction. Additionally, ONEOK is planning to commission a baseline analysis of the soils throughout the Project area by a professional soil scientist and restoration contractor. The purpose of these studies is to identify existing soil conditions across the entire Project length, highlight problem areas, plan construction controls, and design restoration measures in a more site-specific manner. The results of these studies will be incorporated into the final Project plans and specifications.

9.4 VEGETATION AND WILDLIFE

ONEOK will clear the ROW to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the pipeline. In areas that require permanent revegetation, ONEOK will specify appropriate seed mixes, application rates, and seeding dates, taking into account recommendations of appropriate state and federal agencies and landowner requests. In non-agricultural areas, vegetation cleared from extra workspace will be allowed to revegetate after construction depending on arrangements with the landowner. Consequently, significant changes in cover types are not anticipated.

ONEOK will take appropriate precautions to protect livestock and crops from being affected by construction. Operation of the proposed pipeline is not anticipated to significantly affect terrestrial wildlife, fisheries resources, or other aquatic species. Shelter belts and trees will be protected and restored by ONEOK to the extent practicable in a manner compatible with the safe operation, maintenance, and inspection of the pipeline.

Noxious Weeds: The Project Corridor intersects 165 noxious weed patches (see Exhibit C). To mitigate the spread of noxious weeds, equipment leaving infested areas will be visually inspected prior to leaving the area, and vegetation and soils will be cleaned from vehicles and equipment. The vehicles and equipment will be cleaned to remove remaining soils and vegetation prior to entering uninfected tracts. ONEOK will also comply with its Noxious Weed Plan, which will be submitted to the McKenzie County Weed Board for review and approval prior to commencing construction.

Trees and shrubs: ONEOK will comply with the NDPSC's tree and shrub mitigation specifications. A formal tree and shrub inventory was initiated in fall 2018 and is ongoing. Additional field work may occur prior to construction as the workspace is finalized and pending final regulatory authorization of the Project. The clearing or removal of trees or shrubs will be done selectively and minimally, in a manner that minimizes

the disturbance to woody vegetation and in compliance with NDPSC's specifications. The replacement of trees and shrubs will be based upon actual impacts due to construction, will meet the 2:1 ratio specified, and will be fully documented.

Wetlands and Waterbodies: ONEOK will minimize impacts to wetland and waterbodies by minimizing workspace through these features and by utilizing low-impact crossing methods, such as HDD, where appropriate. Furthermore, ONEOK will conduct all regulated crossings in compliance with the USACE NWP 12. After completion of waterbody crossings, ONEOK will revegetate disturbed stream banks in accordance with the CMRP, Revegetation Plan, and requirements of applicable state or federal permits. During construction in unsaturated wetlands, topsoil will be segregated from the trench line to preserve natural sources of seed and rootstock. After the trench is backfilled, the topsoil will be replaced to facilitate the natural revegetation process. Features will be returned to their pre-construction condition and contours.

Whooping crane: If a whooping crane is sighted within the construction corridor, or if the USFWS notifies ONEOK of a whooping crane sighting within one mile of the construction ROW, ONEOK would suspend construction activities, and work would not resume until the birds have left the area. Any whooping crane sightings would be immediately reported to the USFWS and the NDGFD. As part of pre-construction activities, ONEOK would conduct environmental training with contractors and construction crews, providing them information on proper identification of the species and correct procedures regarding a sighting. In addition, to avoid long-term impacts on whooping crane migratory stopover habitat, wetlands (if identified) that are crossed by the Project would be restored to pre-construction contours. With these conservation measures in place, Project activities are not anticipated to have adverse impacts on the whooping crane.

Consultations with the USFWS are ongoing. ONEOK will develop further conservation measures, if necessary, to avoid and/or reduce impacts to the whooping crane.

Rufa red knot: If red knots are sighted during construction or if the USFWS notifies ONEOK of a red knot sighting within 1 mile of construction activities, ONEOK would suspend construction activities, and work would not resume until the birds have left the area. Any sightings within the construction corridor would be immediately reported to the USFWS. As part of pre-construction activities, ONEOK would conduct environmental training with contractors and construction crews, providing them information on proper identification of the species and correct procedures regarding a sighting. In addition, to avoid long-term impacts on the red knot's migratory stopover habitat, wetlands (if identified) crossed by the Project would be restored to pre-construction contours. With these conservation measures in place, Project activities are not anticipated to have adverse impacts on the rufa red knot.

Consultations with the USFWS are ongoing. ONEOK will develop further conservation measures, if necessary, to avoid and/or reduce impacts to the rufa red knot.

Dakota skipper: Suitable habitat for the Dakota skipper is present in the Project Corridor. Consultations with the USFWS are ongoing, and ONEOK is working to develop avoidance, minimization, and mitigation measures to reduce impacts on Dakota skipper.

Bald and Golden Eagles: To mitigate potential adverse effects on nesting and breeding eagles, the USFS generally recommends maintaining a nest buffer of at least 0.5 mile for golden eagles nesting in the area, and a buffer of 1 mile for active bald eagle nests. ONEOK will work with the USFS and USFWS as necessary if an active eagle nest is identified within 1 mile of the proposed pipeline route.

Migratory Bird Treaty Act: The commonly observed timeframe for avian migration in North Dakota is February 1st to July 15th. Construction activities for the proposed Project are planned to begin in February 2019. Based on the Project's schedule, construction activities are anticipated to occur during the recognized migration/breeding season. ONEOK will develop and implement a mitigation plan which may include conducting surveys for nesting birds prior to the commencement of ground disturbing activities and implementing avoidance and monitoring measures of any active nests.

The NDGFD raised specific concerns during the agency notification process (see Section 6.7). ONEOK is reviewing the Project plans and specifications and, to the extent feasible, will adjust Project execution with the objective of meeting the following goals:

- Clearing of wooded draws and native prairie will be minimized to the maximum extent possible and all disturbed areas will be returned to pre-Project conditions.
- Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patters, and above-ground structures should not be placed in wetland areas. Unavoidable destruction or degradation of wetlands should be mitigated in kind.
- ONEOK will conduct additional raptor surveys prior to construction and will implement appropriate buffers around active eagle nests.

9.5 LAND USE

ONEOK will obtain and comply with applicable county permits and zoning and land use regulations. Permits may include, but are not limited to, grade and fill permits, ditch crossing permits, road and utility permits, and conditional use permits. ONEOK will retain one or more EIs to monitor compliance with environmental conditions of county permits.

ONEOK will repair surface drains and drainage tiles disturbed during ROW preparation, construction, and maintenance activities. ONEOK will repair private roads and farm lanes damaged when moving equipment or when obtaining access to the ROW. ONEOK will repair or replace fences and gates removed or damaged as a result of ROW preparation, construction, or maintenance activities.

The Project will be installed at a minimum depth of 48 inches from the surface contour to minimize the potential for environmental damage resulting from deep tillage activities unless modified to accommodate special construction issues at the site. Upon installation of the pipeline, all Project locations will be returned to their original pre-construction contours and land use to the extent feasible.

9.6 CULTURAL RESOURCES

Consideration for impacts to cultural resources have occurred throughout the course of the Project. Avoidance is the preferred method of treatment for historic properties. In the event that a historic property cannot be avoided, ONEOK will consult with the SHPO to mitigate adverse effects and implement appropriate treatment plans.

As discussed in Section 5.1, ONEOK conducted Class III inventory surveys throughout the Project Corridor and plans to submit its Class III cultural resource report to USFS for an interagency review in November 2018. The USFS will submit the Class III inventory report on behalf of ONEOK to the SHPO for their review and concurrence. Following agency review of the report, ONEOK will work with the USFS and SHPO to

clarify NRHP recommendations and finalize avoidance and mitigation measures. ONEOK will file relevant future correspondence with USFS and SHPO to the NDPSC upon receipt.

There is always the potential during construction to encounter previously unknown cultural resources or human remains. As such, ONEOK will develop a Project-specific Unanticipated Discoveries Plan, which will describe the actions to be taken in the event a previously unrecorded paleontological or cultural resource site is discovered during construction activities, specifically calling for work to stop until the appropriate authority can be contacted. This plan will be incorporated into contract documents and implemented throughout the Project.

10.0 DEVELOPMENT

10.1 AREAS OF KNOWN GEOLOGIC INSTABILITY

Desktop analysis identified one area containing landslide deposits within the Project Corridor near milepost 60.1; however, this deposit does not intersect the Route (see Exhibit B.2). Mitigation will be implemented through minimizing impacts with construction techniques and restoring the area to its original condition. This will be accomplished through preserving topsoil and continued monitoring of the area through restoration until the site reaches final stabilization per applicable permit(s) requirements. As discussed in Section 9.3, ONEOK is planning to commissioned additional geotechnical and soil studies for this Project. The findings of these studies will be incorporated into final Project plans and specifications.

10.2 PRESENT AND FUTURE NATURAL RESOURCE DEVELOPMENT IN THE AREA

A small percentage of North Dakota is held in public ownership. Of the 45 million acres of land in the state, less than 3 million are owned in fee title by state and federal land management agencies. Most of these agencies work in cooperation with private producers in managing these lands. For example, the NDGFD leases certain tracts of wildlife management areas for grazing, haying, and food plots. The USFS manages for multiple uses and the sustained yield of renewable resources such as water, forage, wildlife, and recreation, as well as industry such as oil and gas development.

As discussed in Section 7.1.1, there are no national parks, national memorial parks, national historic sites and landmarks, national wilderness areas, or national monuments located within the Project Corridor. There are no designated or registered state parks, sites, monuments, or nature preserves along the Project Corridor. There are no county parks, recreational areas, municipal parks, or parks owned or administered by other governmental subdivisions crossed by the route. As such, there will be no direct impacts to national parks, sites, monuments, or wilderness.

As discussed in Section 7.2.1, there are no federally-managed wildlife areas; wild, scenic, or recreational rivers; or wildlife refuges within the study area, Project Corridor, or Route. The Project does cross the LMNG managed by USFS. Within the LMNG, with the exception of approximately 2 miles, ONEOK has collocated the Project adjacent to a previously disturbed pipeline corridor. As noted previously, ONEOK is currently seeking the appropriate permits from USFS for installation of the pipeline. ONEOK will comply with all conditions of the USFS permit and will file the permit with the NDPSC upon receipt.

The land use along the pipeline route is primarily in agricultural production with a significant number of oil wells and other pipeline systems and associated infrastructure in the area. As the pipeline is a buried utility, surface land use will return to preexisting conditions once the pipeline is installed.

Other known development projects in the vicinity of the Project are discussed in Section 8.8 of this application. ONEOK is not aware of any federal, state, or local natural resource development plans within the Project Corridor or study area.

11.0 QUALIFICATIONS OF PREPARERS

Eddie Zedaker
Environmental Engineer
ONEOK, Inc.

Degree: B.S. Biosystems Engineering, Auburn University

Mr. Zedaker is an Environmental Project Manager with 7 years of environmental planning experience in a wide range of development projects. He has both performed and managed the assessment, siting, permitting, and construction of a wide range of federal, state, and municipal infrastructure projects throughout the mid-west and southeast regions. Mr. Zedaker manages ONEOK's third party environmental and cultural resource consultants and serves as a coordinator for environmental and other necessary project permits.

Blake Holland
Project Manager
ONEOK, Inc.

Degree: B.S. Mechanical Engineering, University of Oklahoma

Mr. Holland has been managing pipeline related projects in various regions which ONEOK operates in over the past 5 years. As project manager for the Demicks Lake Pipeline, Mr. Holland manages and coordinates activities of the project team to execute the Project. Mr. Holland is responsible for oversight of the entire planning, siting, construction, and restoration process. He is tasked with meeting the commercial objectives and schedule of the project while maintaining strict compliance with all federal, state, and local regulations.

Paul Hartzheim, M.S.
Senior Environmental Analyst
Merjent, Inc.

Degree(s): M.S. Water Resources Science, B.S. Environmental Science, University of Minnesota-Twin Cities

Mr. Hartzheim is a Senior Analyst and Project Manager with 12 years of environmental consulting experience serving the pipeline and renewables industries. He has served as Project Manager, Deputy Project Manager, and resource specialist on numerous projects in over 20 states. Mr. Hartzheim's responsibilities have included preparation of federal, state, and local permit applications, State Public Utility Commission filings, construction and industrial SWPPPs, National Pollutant Discharge Elimination System applications, Soil Erosion and Sediment Control Plans, Environmental Mitigation Plans; and coordination of state and federal agency consultations. Mr. Hartzheim has also assisted in data collection, interpretation and analysis, developing and conducting environmental training modules, and coordinating and managing field survey efforts and EIs.

Maddy Krumwiede, PMP
Senior Environmental Analyst/Project Manager
Merjent, Inc.

Degree(s): M.B.A, North Dakota State University; B.S. Civil Engineering, North Dakota State University

Ms. Krumwiede is a Project Manager and Senior Analyst with Merjent and has excelled in her 8 years of experience in the water resources and environmental regulation fields. Her experience in the environmental field includes project management, interpretation and analysis of project-related data/maps to evaluate permit needs and form strategies during the planning stages of projects, coordinating environmental field surveys, conducting environmental training, performing compliance inspections, and EI coordination. Ms. Krumwiede has a variety of permitting experience including preparation of federal, state, and local permit applications, National Pollutant Discharge Elimination System applications and SWPPPs, preparation of Environmental Assessments, and coordination with local, state, and federal units of government.

Lucas Bicknell, M.S.
Environmental Analyst
Merjent, Inc.

Degree(s): M.S. Environmental and Conservation Science, North Dakota State University; B.S. Zoology: Wildlife and Fisheries Management, North Dakota State University

Mr. Bicknell is an Environmental Analyst with Merjent with 5 years of experience in the water resources and environmental regulation fields. His experience in the environmental field includes project management, interpretation and analysis of regulations, coordinating environmental field surveys and inspections, conducting environmental training and compliance inspections. Mr. Bicknell has permitting experience in 38 states at the federal, state, and local levels to include construction and industrial National Pollutant Discharge Elimination System applications and SWPPPs, Aboveground Storage Tank and Spill Prevention, Control, and Countermeasure regulations, and coordination with local, state, and federal units of government.

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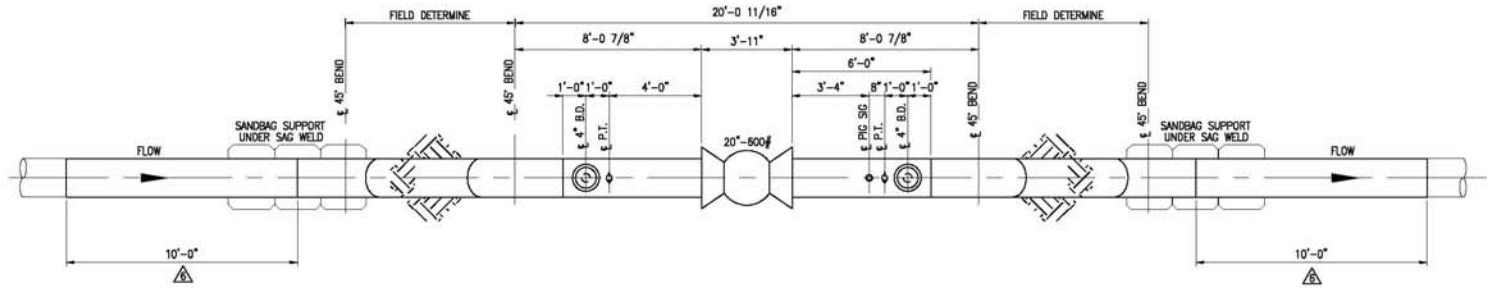
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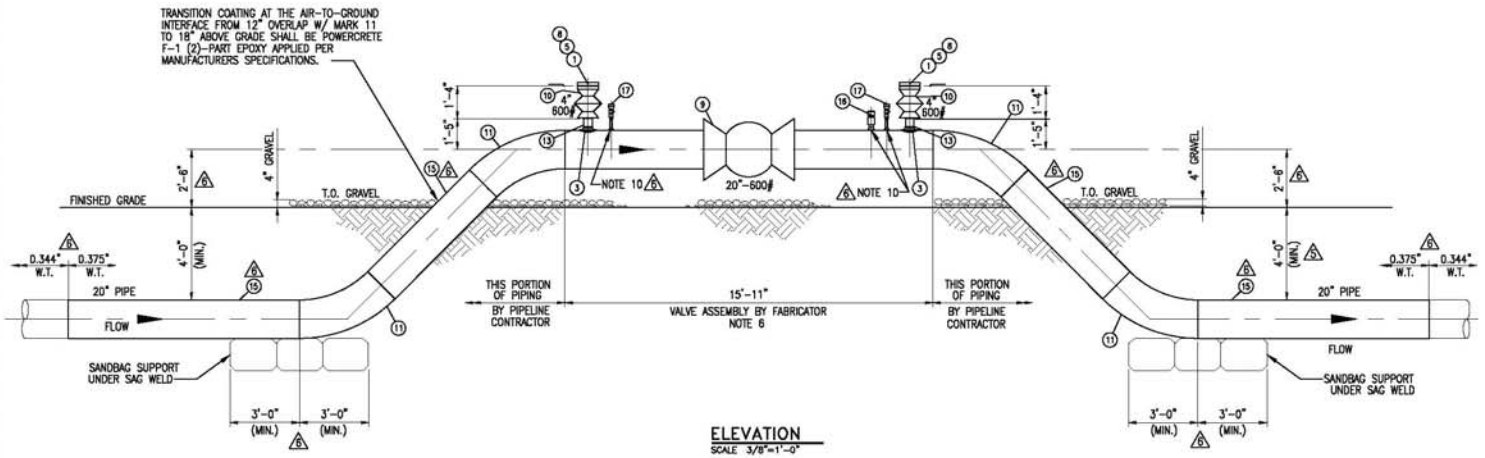
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Exhibit A

Engineering Documents



PLAN
SCALE 3/8"=1'-0"



ELEVATION
SCALE 3/8"=1'-0"

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	2	4"	FLANGE, 4", BLIND, RF, ANSI 600, ASME B16.5, ASTM A105	
			INTENTIONALLY LEFT BLANK	
3	2	20"x4"	REINFORCING WELD SADDLE, (0.375") STD W.T. BARE, CS, MSS-SP-75, WPHY-65	
4			INTENTIONALLY LEFT BLANK	
5	16	4"	7/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [2 SETS]	6 1/4"
6			INTENTIONALLY LEFT BLANK	
7			INTENTIONALLY LEFT BLANK	
8	2	4"	GASKET, 1/8" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, 1/8" CENTERING RING, FLEXITALLIC STYLE CG OR EQUAL, ASME B 16.20	
9	1	20"	20-INCH VALVE, BALL, ANSI 600, WE/WE, SEE DWG. STD-M-5000 & STD-M-5001(MOTOR OPERATOR), NACE MR0175, FOR NGL SERVICE, WITH ONE 6'-0" LG., 0.375" WT, ERW, API 5L GR. X65, PSL2 PIPE PUP, PRE-WELDED ON INLET END, AND ONE 5'-0" LG., 0.375" WT, ERW, API 5L GR. X65, PSL2 PIPE PUP, PRE-WELDED ON OUTLET END; GROVE B-5 OR EQUAL; SELF RELIEVING SEATS: NYLON SEATS; VITON GLT O-RINGS; 3/4" SEAL WELD BODY BLEED VALVE; API 6D, ASTM A 350-GRADE LF2 CLASS 1 (FORGED)	3'-11"
10	2	4"	VALVE, PLUG, ANSI 600, API 6D, REGULAR PATTERN, RF X WE TO MATCH SCH 40 WALL THK, ERW, API 5L-GRADE X65, PSL2 PIPE, NACE API 6D, ASTM A 350-GRADE LF2 CLASS 1, VITON GLT, -50° F FOR NGL SERVICE	1'-5"
11	4	20"	ELL, 30, 45 DEG, INDUCTION BEND, STEEL, 20", SCH STD (0.375"), API 5L-GR X-65, ERW, BARE, PSL2	5'-6 9/16"
12			INTENTIONALLY LEFT BLANK	
13	1	4"	PIPE, STEEL, 4", SCH 40 (0.237"), API 5L-GR X65, PSL2, ERW, BARE LBS/FT 10.79	8"
14			INTENTIONALLY LEFT BLANK	
15		20"	PIPE, STEEL, 20" O.D. X 0.375" WT, API 5L, X-65, SCH 20, ERW, PEAB, PSL2, LBS/FT 78.8, COATED 14-16 MIL FBE	28'-6"
16	1	2"	PIG SIG V FLAG ELECTRICAL INDICATOR WITH THREAD-O-RING, ASTM A333 GR. 6	
17	2	1/2"	PRESSURE TRANSMITTER, SEE DWG: STD-M-5002	

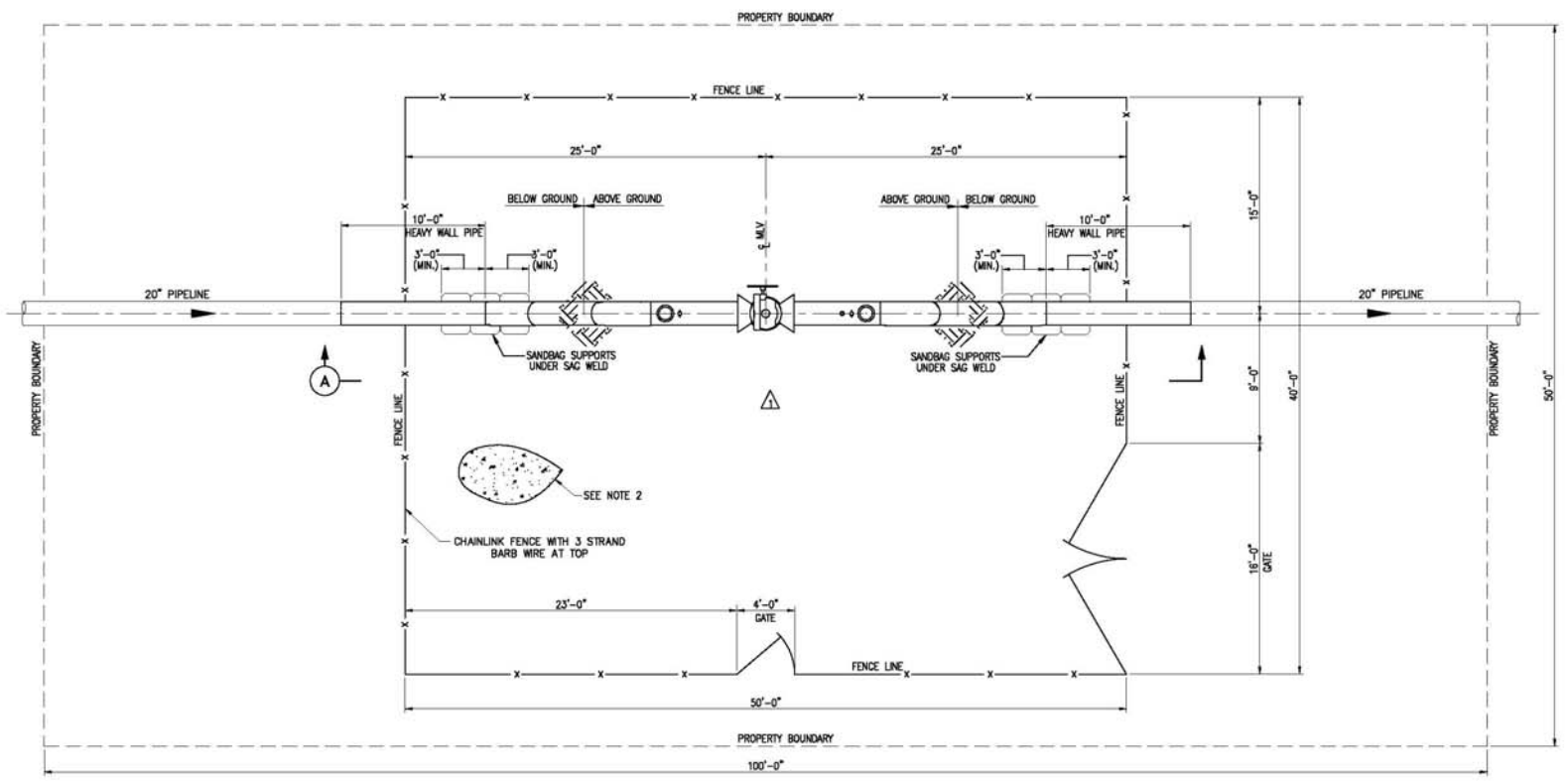
GENERAL NOTES:

1.) WELDING PROCEDURES & WELDERS TO BE QUALIFIED PER API 1104.
2.) PIPE WELDING SHALL BE IN ACCORDANCE WITH DOT TITLE 49 PART 195 & ASME B31.4
3.) 100% OF ALL PIPING BUTT WELDS SHALL BE RADIOGRAPHED PER API 1104.
4.) ALL FILLET WELDS SHALL BE EXAMINED USING DYE PENETRANT OR MAGNETIC PARTICLE METHODS.
5.) FABRICATION AND ASSEMBLY TO BE IN ACCORDANCE WITH DOT TITLE 49 PART 195 OF MINIMUM FEDERAL STANDARDS.
6.) ALL PRESSURE PIPING AND COMPONENTS SHALL BE HYDROSTATICALLY TESTED PER B31.4 AND DOT TITLE 49 PART 195 FOR (4) HOURS.
   a.) ALL TEST EQUIPMENT (DEAD WEIGHT TESTER OR CERTIFIED DIGITAL PRESSURE GAUGE, PRESSURE & TEMPERATURE RECORDERS) SHALL HAVE BEEN CALIBRATED WITHIN TWELVE (12) MONTHS PRIOR TO THE HYDROTEST.
   b.) DEAD WEIGHT TESTER OR CERTIFIED DIGITAL PRESSURE GAUGE ARE TO BE USED, WITH PRESSURE & TEMPERATURE READINGS EVERY 1/4 HR.
   c.) ALL VALVES ARE TO BE 1/2 OPEN DURING HYDROTESTING.
7.) SURFACE PREPARATION AND EXTERNAL COATING SHALL BE PER ONEOK SPECS.
8.) NATURAL GRADE ELEVATION IS ASSUMED TO BE AT 100'-0".
9.) CONTRACTOR TO VERIFY ALL COORDINATES AND DIMENSIONS PRIOR TO CONSTRUCTION.
10.) A105 GR. B / A333 GR. 6 (36KSI YS) TO X65 (65 KSI YS) WELD-QUALIFIED < X42 TO X65 WPS REQUIRED.

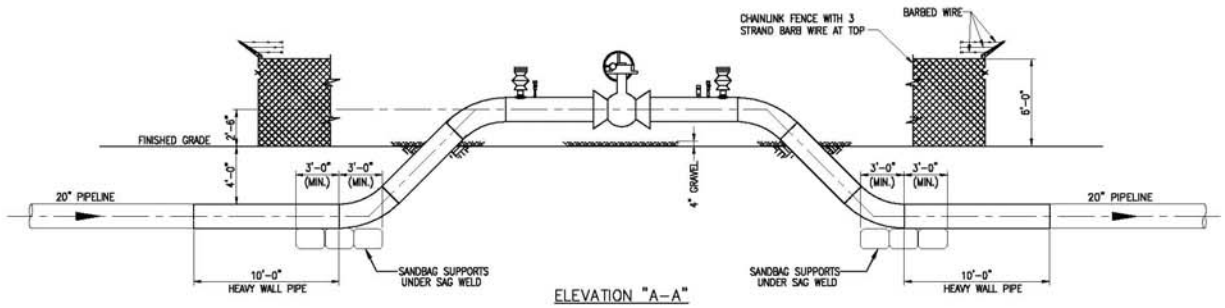
DESIGN BASIS
MOP: 1440 @ 100° F
DESIGN FACTOR: 0.72
MINIMUM HYDROSTATIC TEST PRESSURE: 1800 (1.25 x MOP)
FABRICATION HYDROSTATIC TEST PRESSURE FOR VALVE ASSEMBLY: 2160 (1.5 x MOP)
CODE – ANSI ASME B31.4, PIPELINE DOT TITLE 49, PART 195

ONEOK

TYPICAL 20" MAINLINE BLOCK VALVE PIPING DETAILS



PLAN



ELEVATION "A-A"

NOTES:

1. ALL FENCE MATERIAL TO BE ZINC COATED (GALV.) 9 GAUGE STEEL.
2. 1" CRUSHED LIMESTONE OR 1" CRUSHED SCORIA.

ONEOK

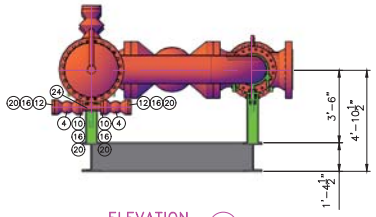
TYPICAL 20" VALVE SITE
FENCE LAYOUT AND DETAILS

STEEL BILL OF MATERIAL

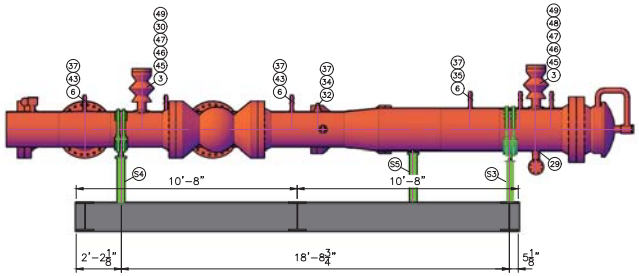
MARK	QTY	LONG ANNOTATION	LENGTH	WEIGHT
S1	3	W16X77	7'-8"	1770.99
S2	2	W16X77	21'-4"	3285.34
TOTAL WEIGHT: 5056.33				

SUPPORT BILL OF MATERIAL

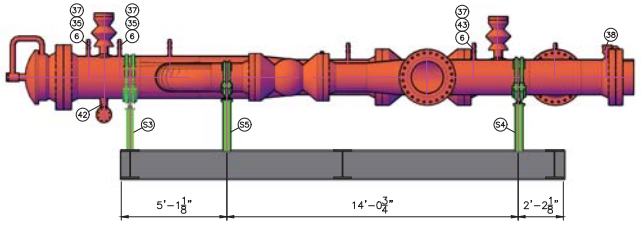
MARK	QTY	MODEL	LENGTH TO CENTERLINE OF PIPE	STYLE
S3	1	EZ-LINE 2024-B-24"	3'-6"	PIPE SUPPORT
S4	2	EZ-LINE 2024-B-20"	3'-6"	PIPE SUPPORT
S5	1	EZ-LINE 1218-B-16"	3'-6"	PIPE SUPPORT



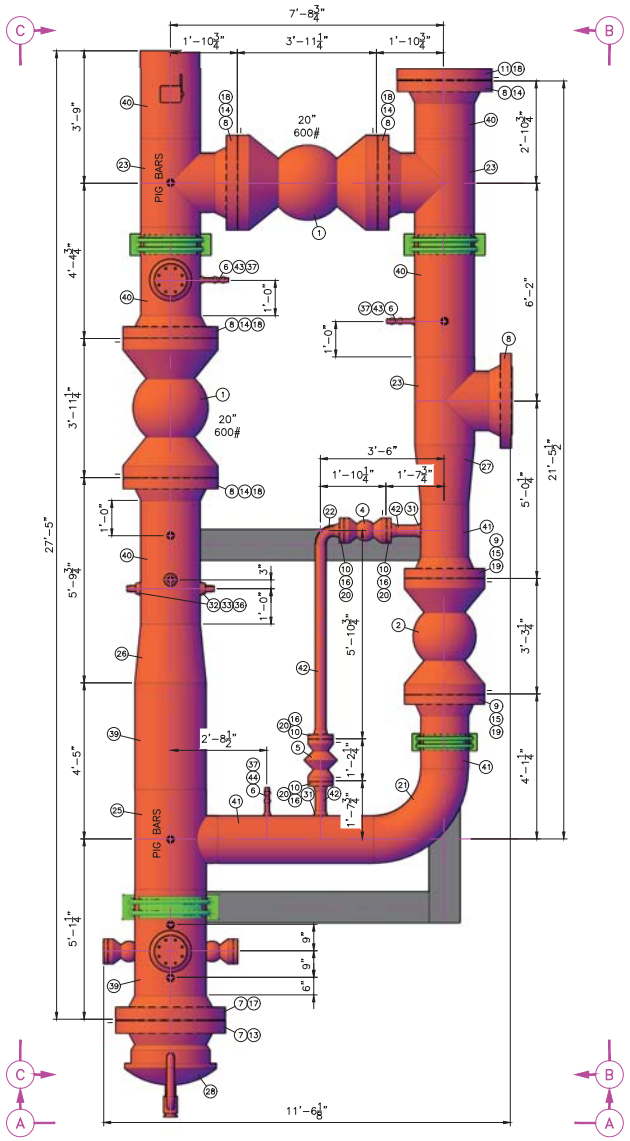
ELEVATION A
SCALE 1/2"=1'-0"



ELEVATION B
SCALE 1/2"=1'-0"

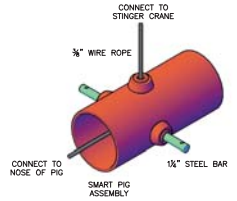


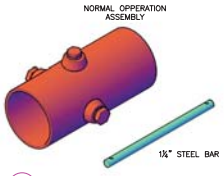
ELEVATION C
SCALE 1/2"=1'-0"



PIPING BILL OF MATERIAL

MARK	SIZE	QTY	DESCRIPTION	LENGTH
1	20"	2	VALVE, BALL, RFFE, ANSI 600 SEE DWG. STD-M-5000 & STD-M-5001(MOTOR OPERATOR)	3'-11"
2	16"	1	VALVE, BALL, RFFE, ANSI 600 SEE DWG. STD-M-5000 & STD-M-5001(MOTOR OPERATOR)	3'-3"
3	4"	2	VALVE, PLUG, RF×WE, ANSI 600	1'-5"
4	3"	3	VALVE, BALL, RFFE, ANSI 600, w/ VITON OR FLOUROCARBON SEALS	1'-2"
5	3"	1	VALVE, PLUG, RFFE, ANSI 600	1'-2"
6	1"	9	VALVE, BALL, SW/THRD, 3000#, w/ VITON OR FLOUROCARBON SEALS	2 3/16"
7	24"	2	FLANGE, ANSI 600, RF WELD NECK, SCH XH, F-60, MSS-SP-44	
8	20"	6	FLANGE, ANSI 600, RF WELD NECK, SCH STD, F-60, MSS-SP-44	
9	16"	2	FLANGE, ANSI 600, RF WELD NECK, SCH STD, F-52, MSS-SP-44	
10	3"	6	FLANGE, ANSI 600, RF WELD NECK, SCH STD, ASTM A-105	
11	20"	1	FLANGE, ANSI 600, RF BLIND, SCH STD, F-60, MSS-SP-44	
12	3"	2	FLANGE, ANSI 600, RF BLIND, SCH STD, ASTM A-105	
13	24"	1	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
14	20"	5	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
15	16"	2	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
16	3"	8	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
17	24"	24	1 7/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [1 SET]	13 1/2"
18	20"	120	1 5/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [5 SETS]	12 1/2"
19	16"	40	1 1/2" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [2 SETS]	10 1/2"
20	3"	64	3/4" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [8 SETS]	5"
21	16"	1	ELBOW, 90, LR, SCH STD, SML, GRADE Y-52, MSS-SP-75	
22	3"	1	ELBOW, 90, LR, SCH STD, SML, GRADE B	
23	20"	3	TEE, STR, SCH STD, SML, GRADE Y-60, MSS-SP-75 (1 w/ PIG BARS)	
24	3"	1	TEE, STR, SCH STD, SML, GRADE B	
25	24"x16"	1	TEE, RED, 24" SCH XH x 16" SCH STD, SML, GRADE Y-60, MSS-SP-75 (W/ PIG BARS)	
26	24"x20"	1	REDUCER, CONC, 24" SCH XH x 20" SCH STD, SML, GRADE Y-60, MSS-SP-75	
27	20"x16"	1	REDUCER, CONC, SCH STD, SML, GRADE Y-60, MSS-SP-75	
28	24"	1	CLOSURE, ANSI 600, HORIZONTAL, XH BORE, WELD IN, WITH VITON O-RINGS MFG.: TWINLOCK OR TDW D2000	
29	24"x3"	1	WELDOLET, SCH XH, ASTM A-105	
30	20"x4"	1	REINFORCING WELD SADDLE, A234 GR WPB, MSS-SP-75 WPHY-60	
31	16"x3"	2	WELDOLET, SCH XH, ASTM A-105	
32	20"x1 1/2"	3	THREADOLET, 3000#, ASTM A-105	
33	1 1/2"x1 1/4"	2	BUSHING, RED, THRD, 3000#, ASTM A-105	
34	1 1/2"x1"	1	BUSHING, RED, THRD, 3000#, ASTM A-105	
35	24"x1"	3	NIPOLET, SCH XXH, SML, GRADE B	4"
36	1 1/4"	2	PLUG, HEX HEAD, THRD, 3000#	
37	1"	10	PLUG, HEX HEAD, THRD, 3000#	
38	20"x2"	1	KIDD PIG SIG, SCRAPER PASSAGE INDICATOR SEE DWG: STD-M-5000 FOR MANUAL OPERATIONS SEE DWG: STD-M-5001 FOR ELECTRONIC OPERATIONS	
39	24"	1	24.000"x0.500", API 5L, GRADE X-60, SCH XH, ERW, PE&B, LBS/FT 125.61	6'-0"
40	20"	1	20.000"x0.375", API 5L, GRADE X-60, SCH 20, ERW, PE&B, LBS/FT 78.60	13'-2"
41	16"	1	16.000"x0.375", API 5L, GRADE X-52, SCH 30, ERW, PE&B, LBS/FT 62.58	7'-4 3/4"
42	3"	1	3.500"x0.216", API 5L, GRADE B, SCH 40, ERW, PE&B, LBS/FT 7.58	6'-8"
43	20"x1"	5	NIPOLET, SCH XXH, SML, GRADE B	4"
44	16"x1"	1	NIPOLET, SCH XXH, SML, GRADE B	4"
45	4"	2	FLANGE, ANSI 600, RF BLIND, SCH STD, ASTM A-105	
46	4"	2	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
47	4"	16	7/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [2 SETS]	6"
48	24"x4"	1	REINFORCING WELD SADDLE, A234 GR WPB, MSS-SP-75 WPHY-60	
49	4"	2	4.500"x0.237", API 5L, GRADE B, SCH 40, ERW, PE&B, LBS/FT 10.79	6"





DETAIL A
SCALE N.T.S.

MK	DATE	REVISIONS	BY	AP.	MK	DATE	REVISIONS	BY	AP.
1	2/21/18	GENERAL REVISIONS	MBC	TDS	8				
2	3/13/18	NARROWED TRAP & SKID	MBC	TDS	9				
3	3/14/18	GENERAL REVISIONS PER NOTES	MBC	TDS	10				
4					11				
5					12				
6					13				
7					14				

NOTICE

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DWG. NO.	REFERENCE DRAWINGS

ONEOK

STANDARD
20"-600# TRAP w/ RIGHT HAND BYPASS
DIMENSIONS & BOM

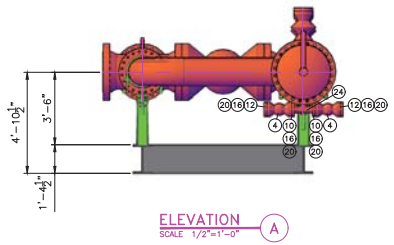
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DR.:	MBC		DWG. NO.: STD-P-2018 REV. 3
CH.:	TDS	SCALE: AS NOTED	
AP.:		CAD#: STDP2015	

STEEL BILL OF MATERIAL

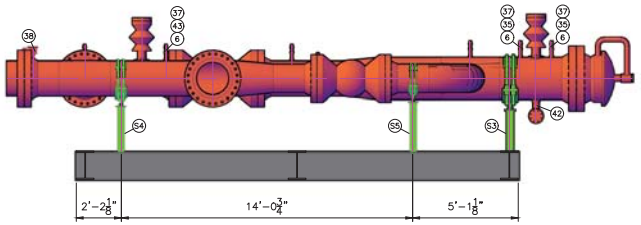
MARK	QTY	LONG ANNOTATION	LENGTH	WEIGHT
S1	3	W16X77	7'-8"	1770.99
S2	2	W16X77	21'-4"	3285.34
TOTAL WEIGHT: 5056.33				

SUPPORT BILL OF MATERIAL

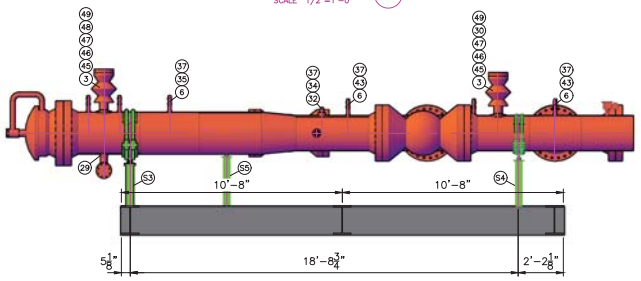
MARK	QTY	MODEL	LENGTH TO CENTERLINE OF PIPE	STYLE
S3	1	EZ-LINE 2024-B-24"	3'-6"	PIPE SUPPORT
S4	2	EZ-LINE 2024-B-20"	3'-6"	PIPE SUPPORT
S5	1	EZ-LINE 1218-B-16"	3'-6"	PIPE SUPPORT



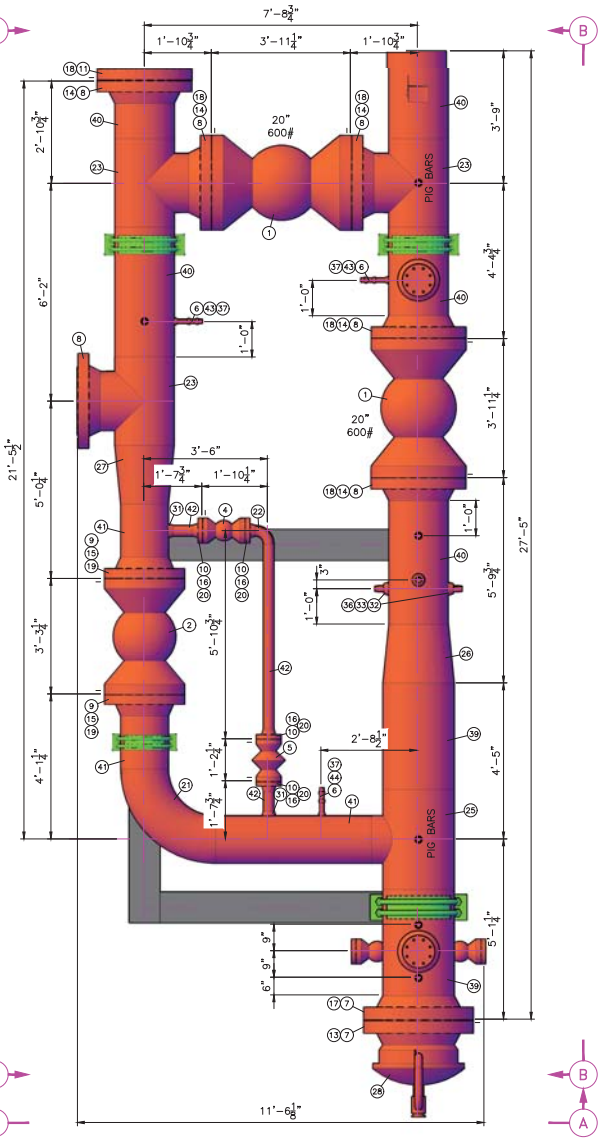
ELEVATION A
SCALE 1/2"=1'-0"



ELEVATION B
SCALE 1/2"=1'-0"

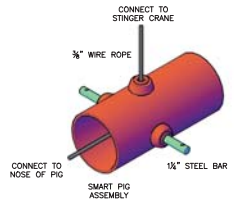


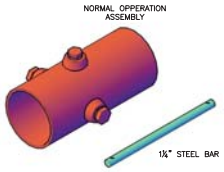
ELEVATION C
SCALE 1/2"=1'-0"



PIPING BILL OF MATERIAL

MARK	SIZE	QTY	DESCRIPTION	LENGTH
1	20"	2	VALVE, BALL, RFFE, ANSI 600 SEE DWG. STD-M-5000 & STD-M-5001(MOTOR OPERATOR)	3'-11"
2	16"	1	VALVE, BALL, RFFE, ANSI 600 SEE DWG. STD-M-5000 & STD-M-5001(MOTOR OPERATOR)	3'-3"
3	4"	2	VALVE, PLUG, RF-WE, ANSI 600	1'-5"
4	3"	3	VALVE, BALL, RFFE, ANSI 600, w/ VITON OR FLOUROCARBON SEALS	1'-2"
5	3"	1	VALVE, PLUG, RFFE, ANSI 600	1'-2"
6	1"	9	VALVE, BALL, SW/THRD, 3000#, w/ VITON OR FLOUROCARBON SEALS	2 3/16"
7	24"	2	FLANGE, ANSI 600, RF WELD NECK, SCH XH, F-60, MSS-SP-44	
8	20"	6	FLANGE, ANSI 600, RF WELD NECK, SCH STD, F-60, MSS-SP-44	
9	16"	2	FLANGE, ANSI 600, RF WELD NECK, SCH STD, F-52, MSS-SP-44	
10	3"	6	FLANGE, ANSI 600, RF WELD NECK, SCH STD, ASTM A-105	
11	20"	1	FLANGE, ANSI 600, RF BLIND, SCH STD, F-60, MSS-SP-44	
12	3"	2	FLANGE, ANSI 600, RF BLIND, SCH STD, ASTM A-105	
13	24"	1	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
14	20"	5	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
15	16"	2	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
16	3"	8	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
17	24"	24	1 7/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [1 SET]	13 1/2"
18	20"	120	1 5/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [5 SETS]	12 1/2"
19	16"	40	1 1/2" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [2 SETS]	10 1/2"
20	3"	64	3/4" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [8 SETS]	5"
21	16"	1	ELBOW, 90, LR, SCH STD, SML, GRADE Y-52, MSS-SP-75	
22	3"	1	ELBOW, 90, LR, SCH STD, SML, GRADE B	
23	20"	3	TEE, STR, SCH STD, SML, GRADE Y-60, MSS-SP-75 (1 w/ PIG BARS)	
24	3"	1	TEE, STR, SCH STD, SML, GRADE B	
25	24"x16"	1	TEE, RED, 24" SCH XH x 16" SCH STD, SML, GRADE Y-60, MSS-SP-75 (W/ PIG BARS)	
26	24"x20"	1	REDUCER, CONC, 24" SCH XH x 20" SCH STD, SML, GRADE Y-60, MSS-SP-75	
27	20"x16"	1	REDUCER, CONC, SCH STD, SML, GRADE Y-60, MSS-SP-75	
28	24"	1	CLOSURE, ANSI 600, HORIZONTAL, XH BORE, WELD IN, WITH VITON O-RINGS MFG.: TWINLOCK OR TDW D2000	
29	24"x3"	1	WELDOLET, SCH XH, ASTM A-105	
30	20"x4"	1	REINFORCING WELD SADDLE, A234 GR WPB, MSS-SP-75 WPHY-60	
31	16"x3"	2	WELDOLET, SCH XH, ASTM A-105	
32	20"x1 1/2"	3	THREADOLET, 3000#, ASTM A-105	
33	1 1/2"x1 1/4"	2	BUSHING, RED, THRD, 3000#, ASTM A-105	
34	1 1/2"x1"	1	BUSHING, RED, THRD, 3000#, ASTM A-105	
35	24"x1"	3	NIPOLET, SCH XXH, SML, GRADE B	4"
36	1 1/4"	2	PLUG, HEX HEAD, THRD, 3000#	
37	1"	10	PLUG, HEX HEAD, THRD, 3000#	
38	20"x2"	1	KIDD PIG SIG, SCRAPER PASSAGE INDICATOR SEE DWG: STD-M-5000 FOR MANUAL OPERATIONS SEE DWG: STD-M-5001 FOR ELECTRONIC OPERATIONS	
39	24"	1	24.000"x0.500", API 5L, GRADE X-60, SCH XH, ERW, PE&B, LBS/FT 125.61	6'-0"
40	20"	1	20.000"x0.375", API 5L, GRADE X-60, SCH 20, ERW, PE&B, LBS/FT 78.60	13'-2"
41	16"	1	16.000"x0.375", API 5L, GRADE X-52, SCH 30, ERW, PE&B, LBS/FT 62.58	7'-4 3/4"
42	3"	1	3.500"x0.216", API 5L, GRADE B, SCH 40, ERW, PE&B, LBS/FT 7.58	6'-8"
43	20"x1"	5	NIPOLET, SCH XXH, SML, GRADE B	4"
44	16"x1"	1	NIPOLET, SCH XXH, SML, GRADE B	4"
45	4"	2	FLANGE, ANSI 600, RF BLIND, SCH STD, ASTM A-105	
46	4"	2	GASKET, ⅛" THK, ANSI 600, RF SPIRAL WOUND TYPE 304, FLEXIBLE GRAPHITE FILLER, ⅛" CENTERING RING, FLEXITALLIC STYLE CGI OR EQUAL	
47	4"	16	7/8" STUD BOLTS, ANSI 16.5, GRADE B-7, w/ (2) HVY HEX HEAD NUTS [2 SETS]	6"
48	24"x4"	1	REINFORCING WELD SADDLE, A234 GR WPB, MSS-SP-75 WPHY-60	
49	4"	2	4.500"x0.237", API 5L, GRADE B, SCH 40, ERW, PE&B, LBS/FT 10.79	6"





DETAIL A
SCALE N.T.S.

MK	DATE	REVISIONS	BY	AP.	MK	DATE	REVISIONS	BY	AP.
1	2/21/18	GENERAL REVISIONS	MBC	TDS	8				
2	3/13/18	NARROWED TRAP & SKID	MBC	TDS	9				
3	3/14/18	GENERAL REVISIONS PER NOTES	MBC	TDS	10				
4					11				
5					12				
6					13				
7					14				

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DWG. NO.	REFERENCE DRAWINGS

ONEOK

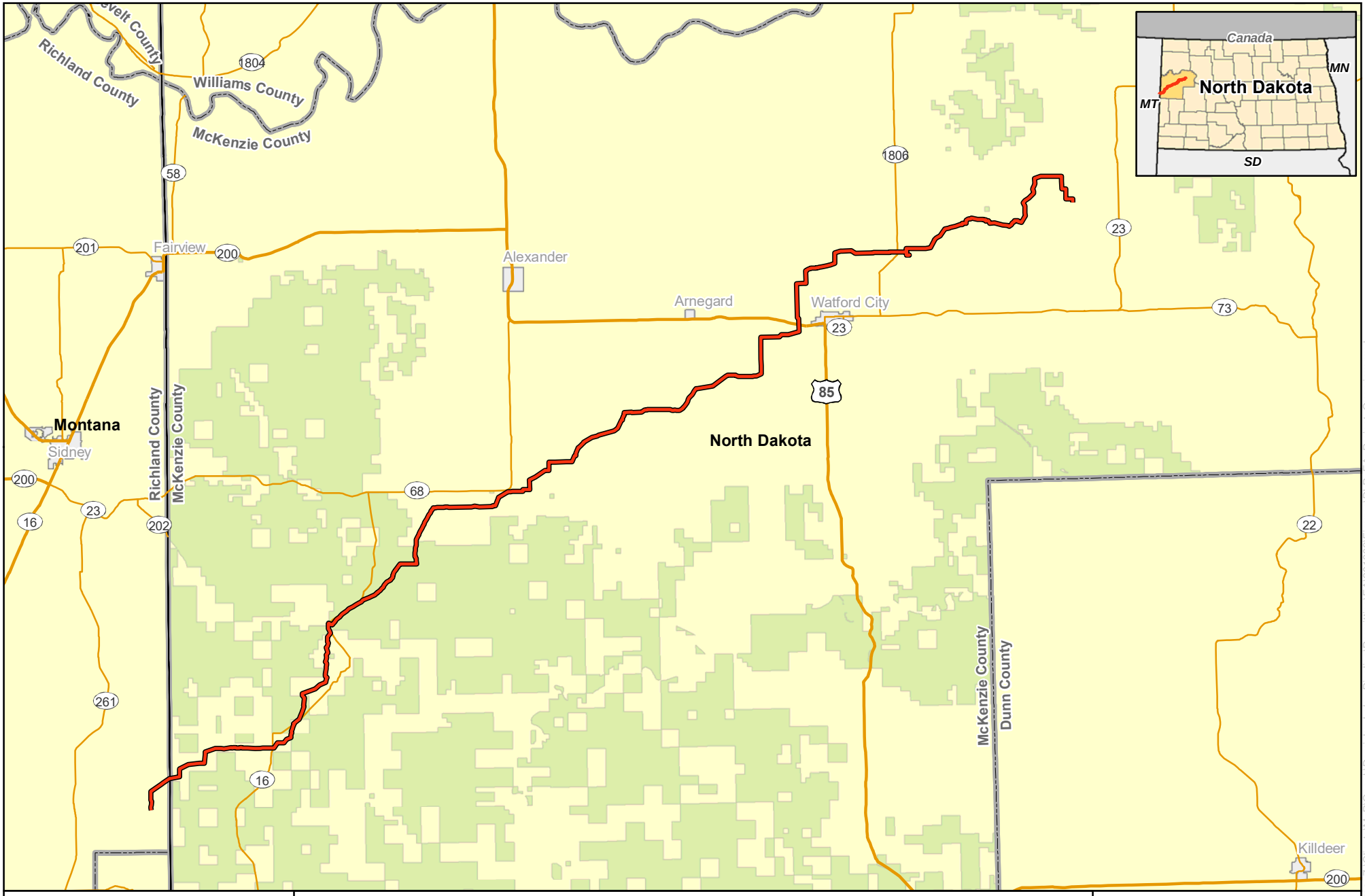
STANDARD
20"-600# TRAP w/ LEFT HAND BYPASS
DIMENSIONS & BOM

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CH.:	TDS	SCALE: AS NOTED	
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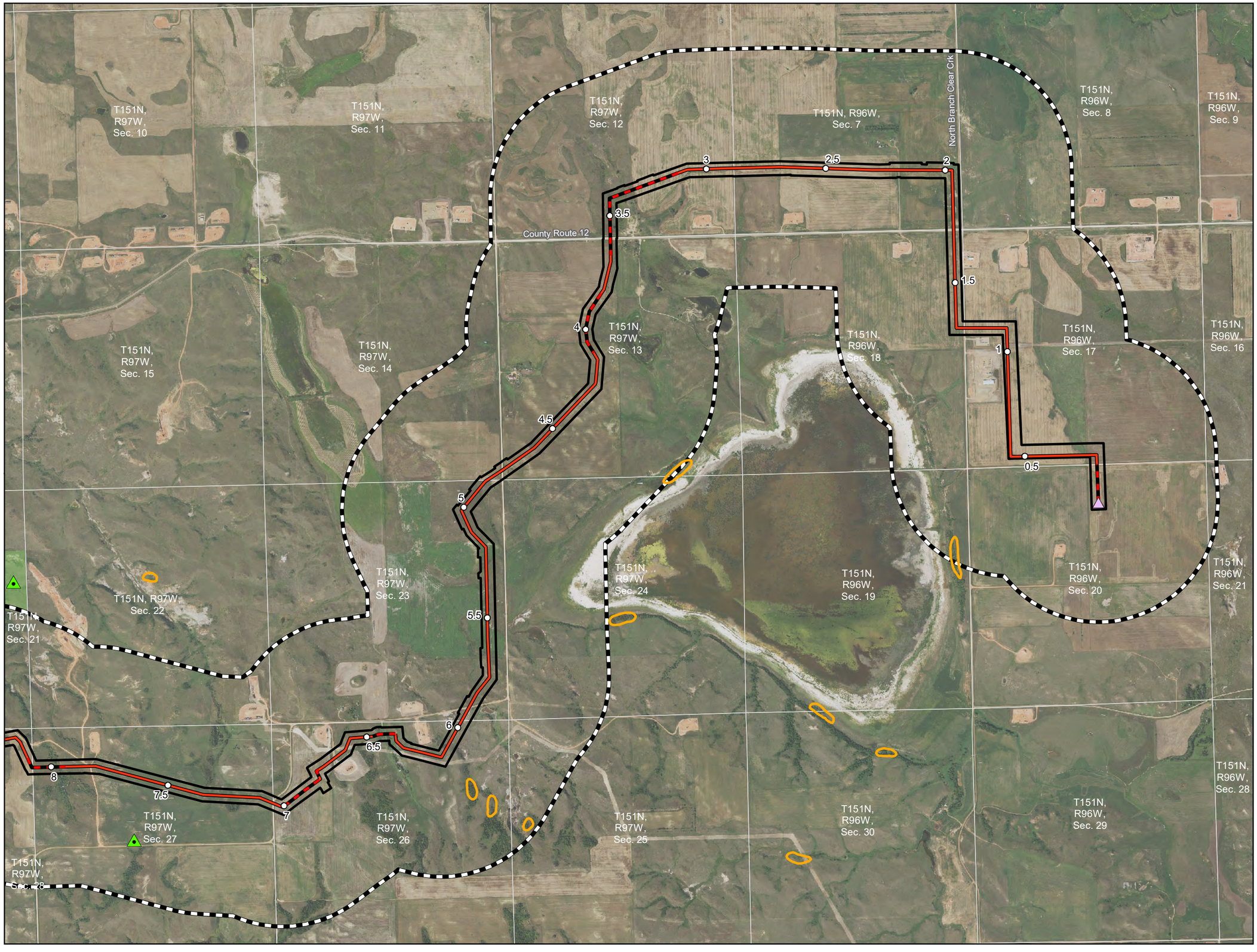
Exhibit B

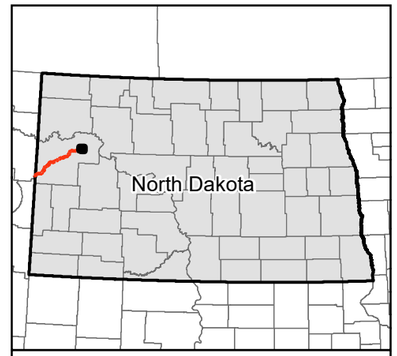
Project Maps

B.1 Project Overview


Richland County
Williams County
McKenzie County
1804
58
201
Fairview
200
Alexander
1806
23
Arnegard
Watford City
73
85
Montana
Sidney
North Dakota
Richland County
McKenzie County
200
16
23
202
68
261
16
McKenzie County
Dunn County
22
Killdeer
200
Canada
MN
North Dakota
MT
SD
0
3.5
7
Miles
1 inch = 7 miles
N
W
E
S
For Environmental Review Purposes Only
Exhibit B.1
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project
Project Overview
Proposed Pipeline
Forest Service Land (USFS)
Source: Z:\Clients\M_P\Oneok\Demicks_Lake_Pipeline\Permitting\EA\201809\Figures\DLP_EA_Project_Overview.mxd
Date: (10/18/2018)

B.2 Avoidance and Exclusion Maps





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Mainline Valve
- Launcher/Receiver
- Centerline: Co-located
- Centerline: Not Co-located
- Project Corridor
- 1-mile Study
- Section Boundary

Avoidance Areas

- Abandoned Mine
- Occupied Structure within 500' of Route
- Occupied Structure (500' Buffer)
- Landslide Deposits
- National Grassland

Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 1 of 14

McKenzie County, ND

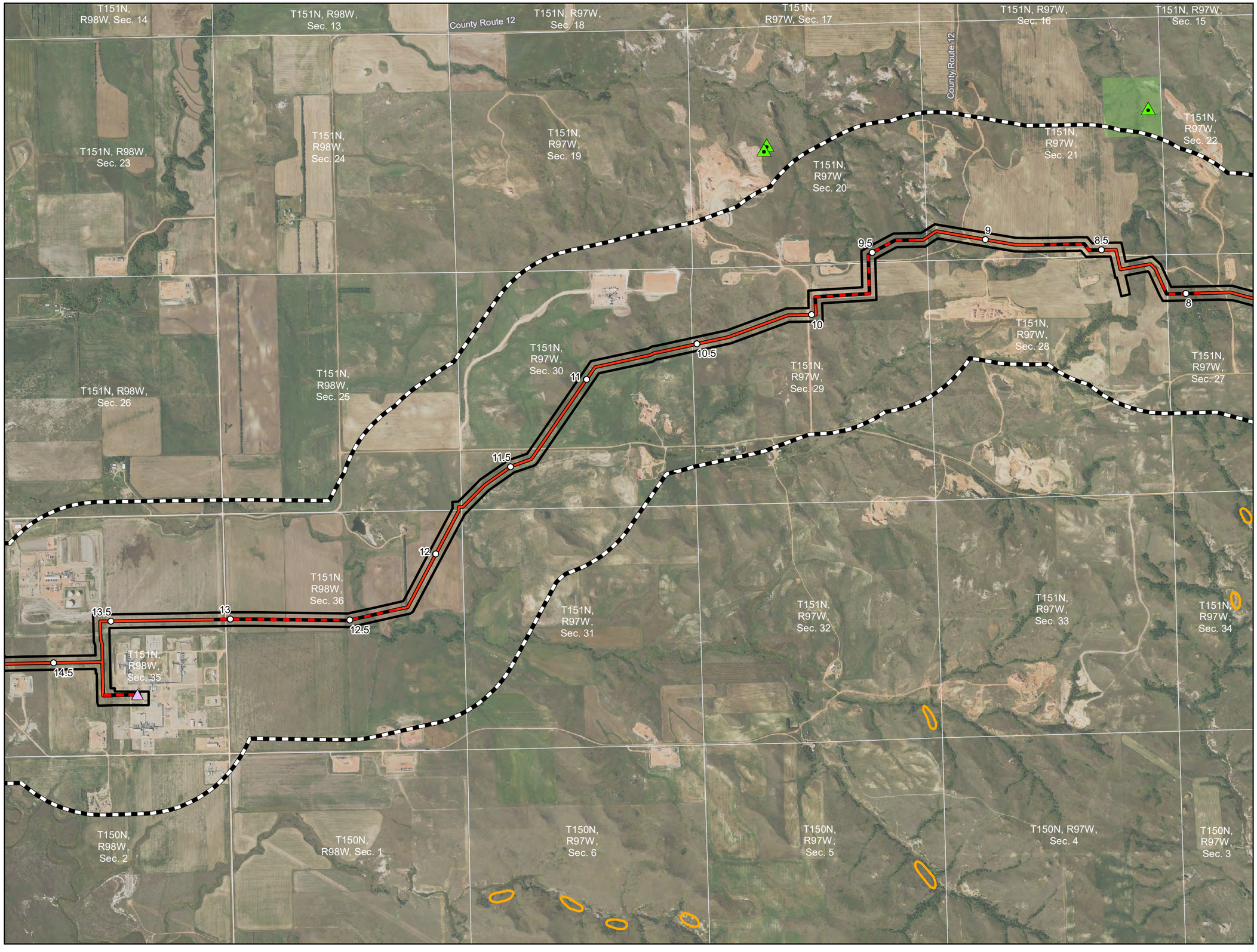
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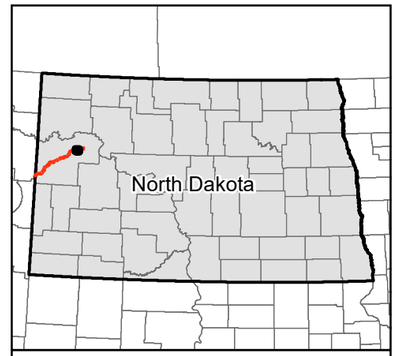
Date: (11/8/2018)

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For Environmental Review Purposes Only

11/8/2018





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 2 of 14

McKenzie County, ND

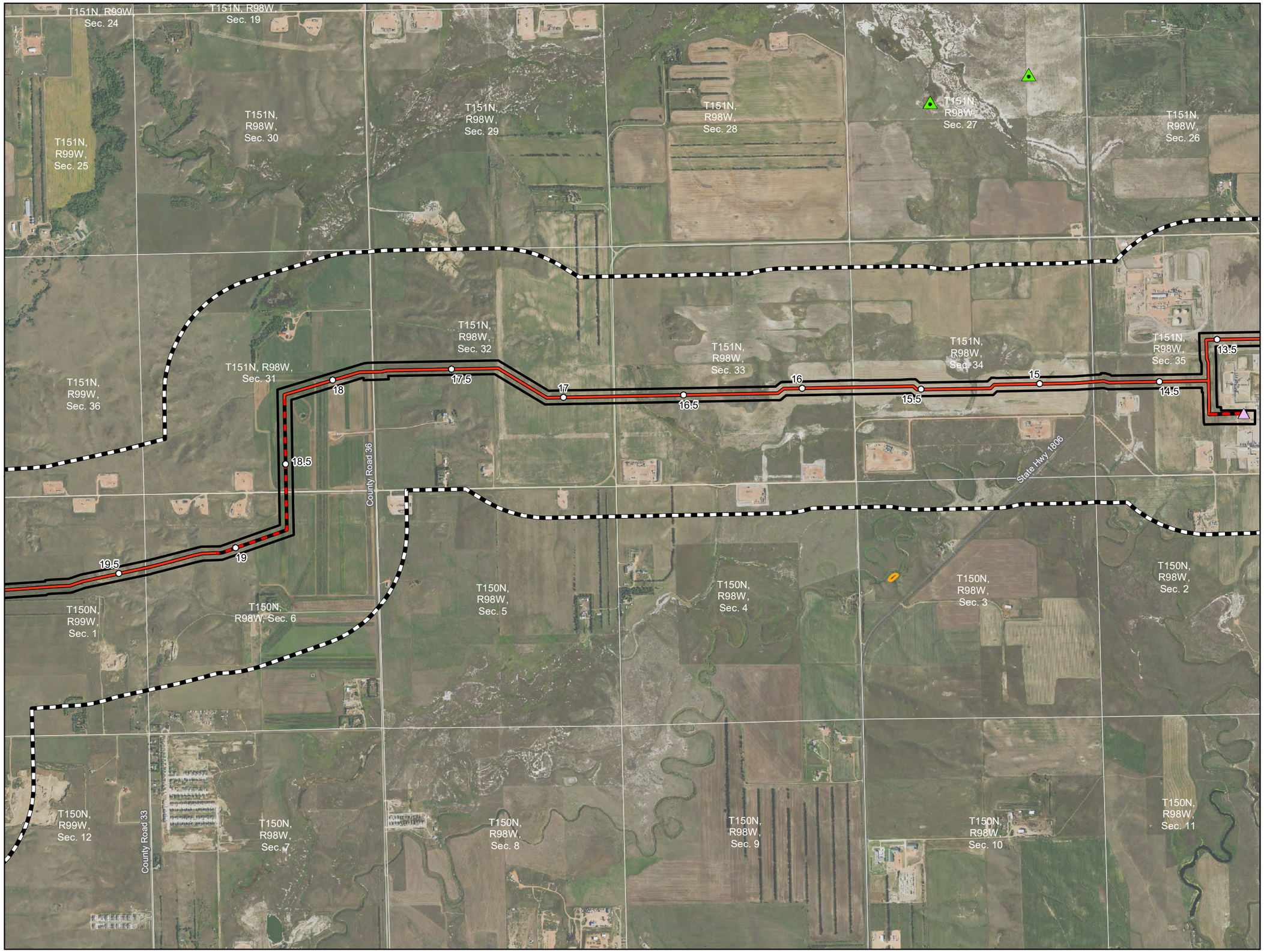
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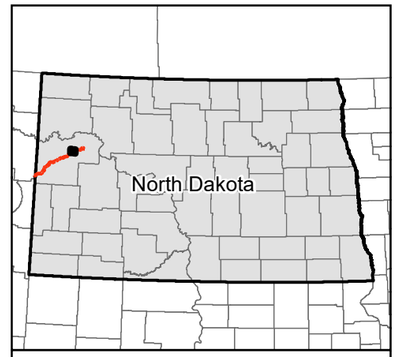
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11/8/2018

Source: Z:\Clients\M_P\ONEOK\Demicks_Lake_Pipeline\Permitting\PSC\201811\Figures\DLP_PSC_Avoidance_Exclusion_Area_Map_Book.mxd

Date: (11/8/2018)





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
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- Launcher/Receiver
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- Centerline: Not Co-located
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Avoidance Areas

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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

McKenzie County, ND

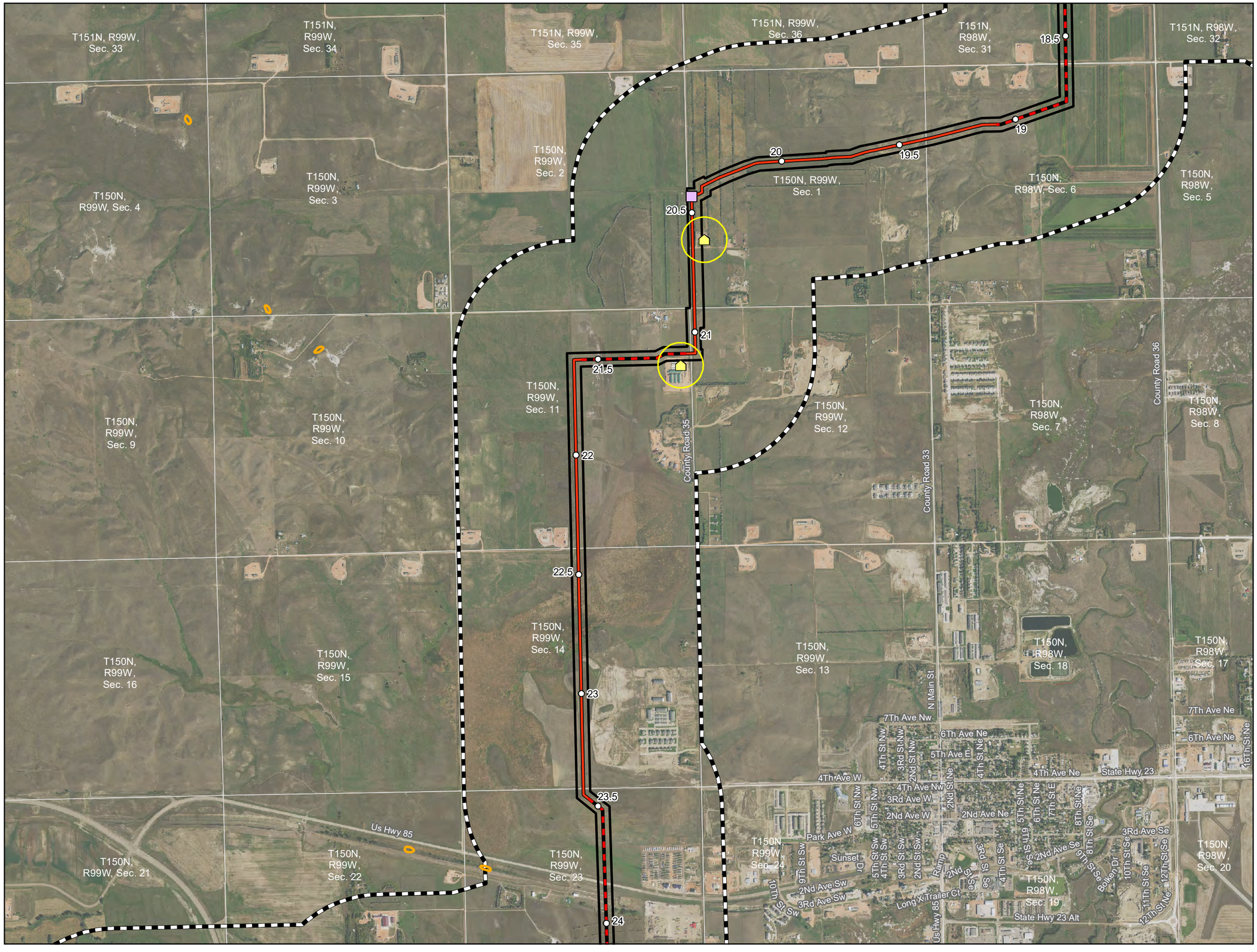
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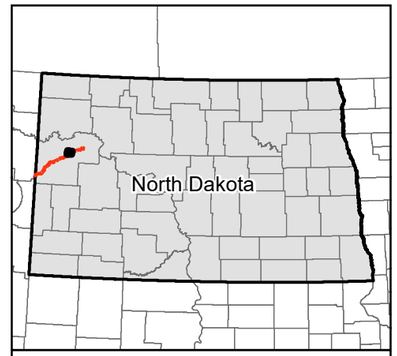
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11/8/2018

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Date: (11/8/2018)





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N
W E
S

- Milepost
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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

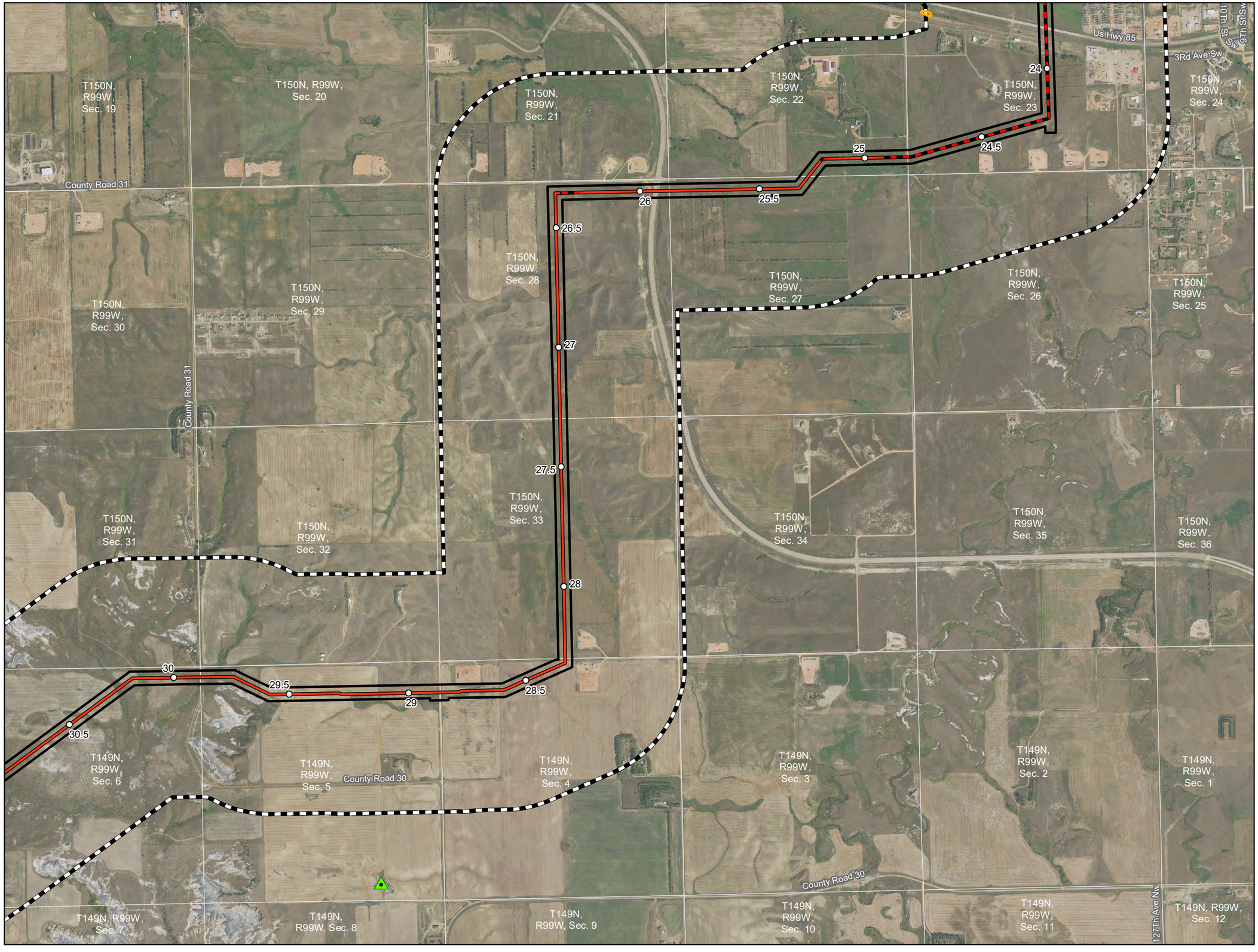
McKenzie County, ND

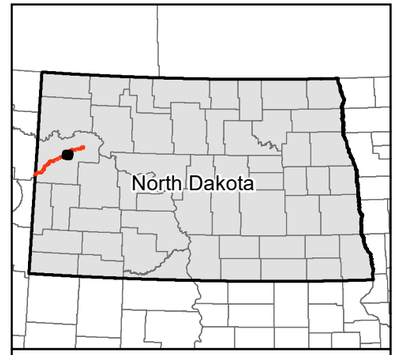
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Date: (11/8/2018)

For Environmental Review Purposes Only

11/8/2018





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N
W E
S

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ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

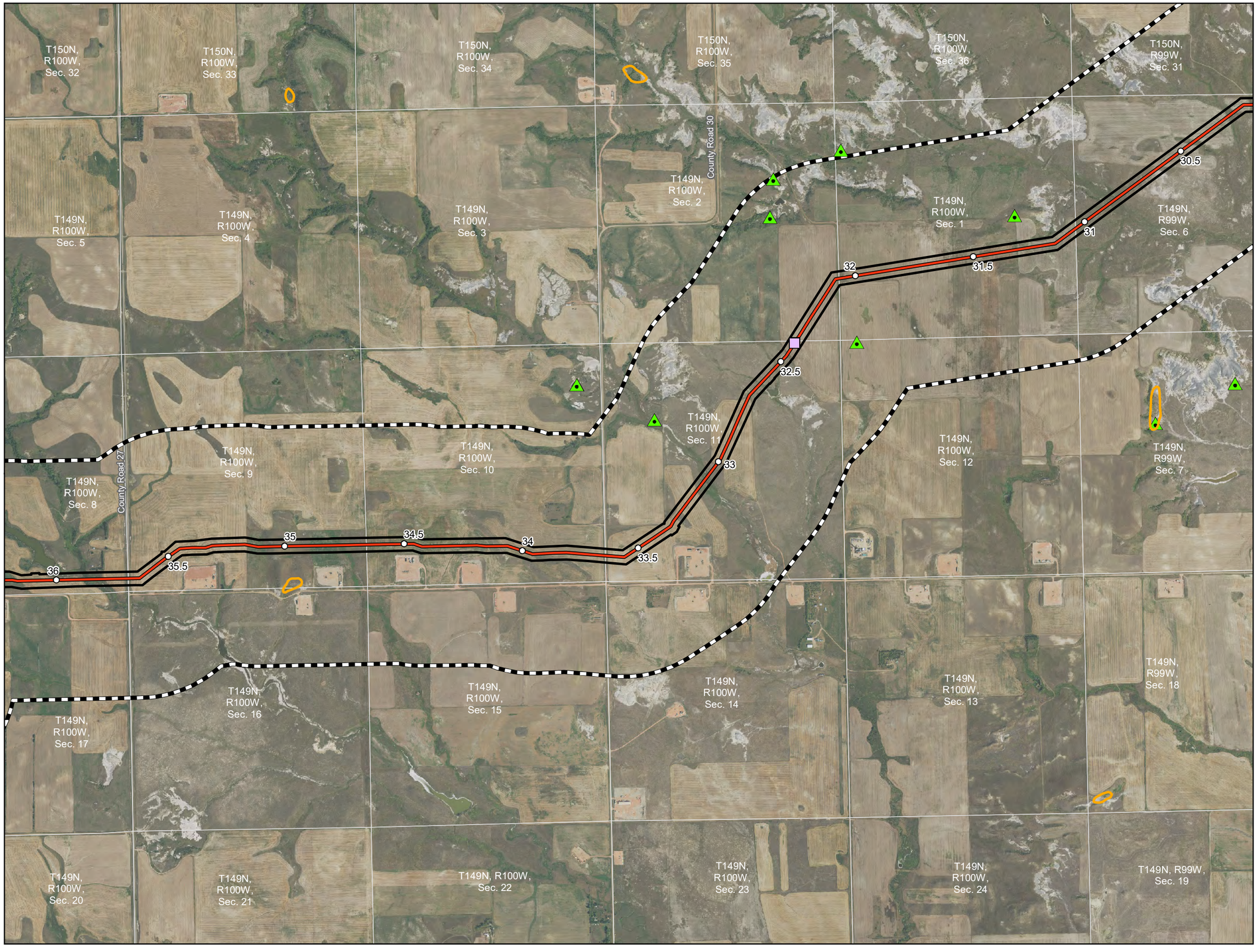
McKenzie County, ND

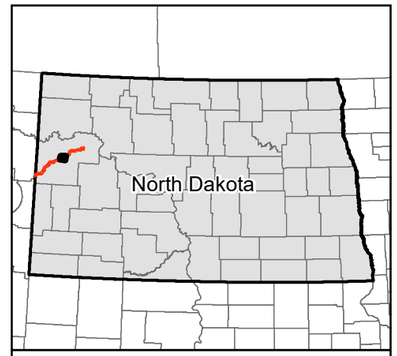
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For Environmental Review Purposes Only

11/8/2018

Source: Z:\Clients\M_P\ONeok\Demicks_Lake_Pipeline\Permitting\PSC\20181119\Figures\DLP_PSC_Avoidance_Exclusion_Area_Map_Book.mxd
Date: (11/8/2018)





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Mainline Valve
- Launcher/Receiver
- Centerline: Co-located
- Centerline: Not Co-located
- Project Corridor
- 1-mile Study
- Section Boundary

Avoidance Areas

- Abandoned Mine
- Occupied Structure within 500' of Route
- Occupied Structure (500' Buffer)
- Landslide Deposits
- National Grassland

Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 6 of 14

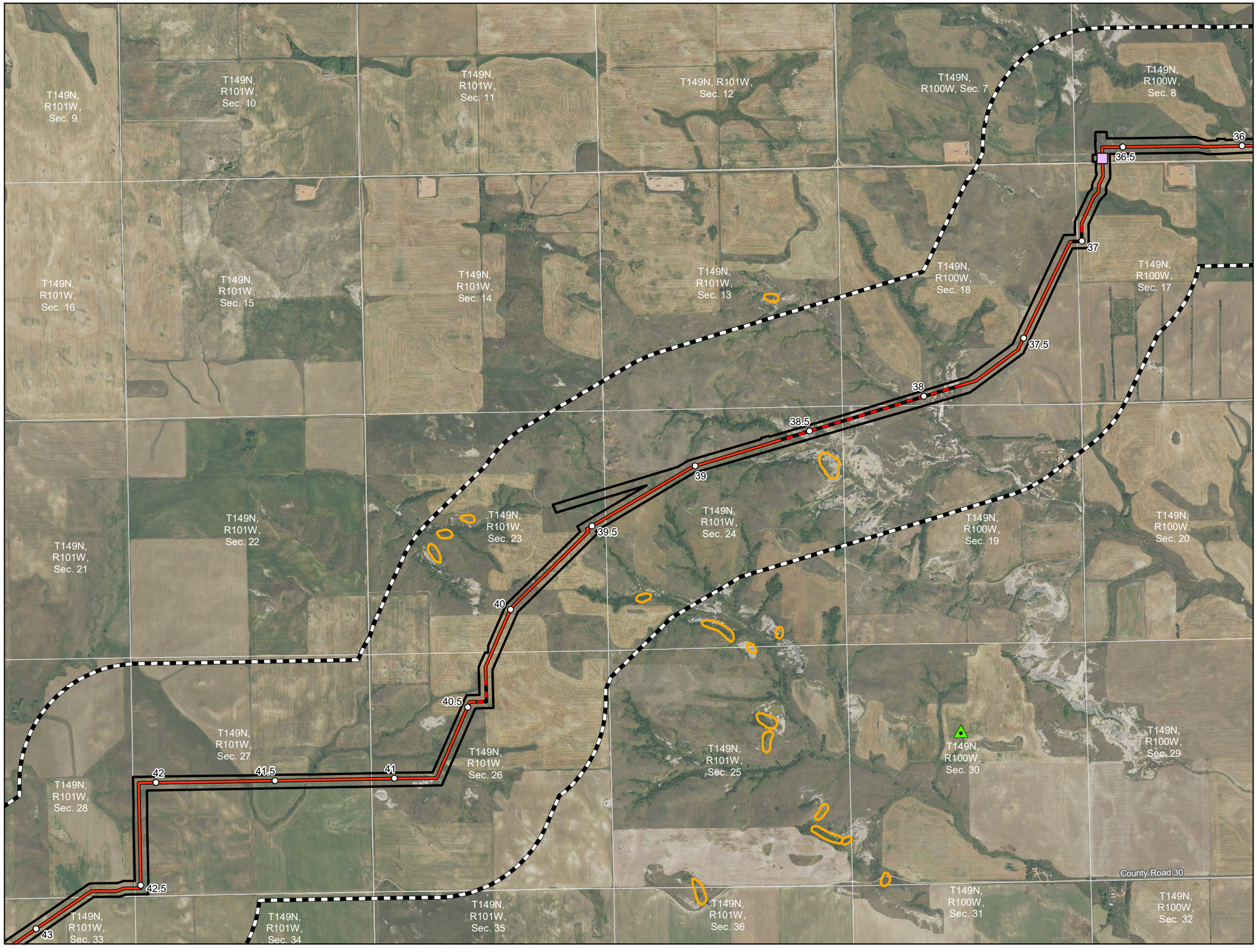
McKenzie County, ND

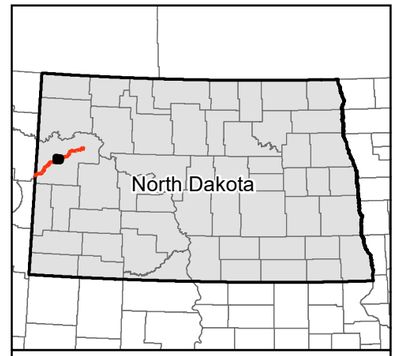
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Date: (11/8/2018)

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11/8/2018





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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 7 of 14

McKenzie County, ND

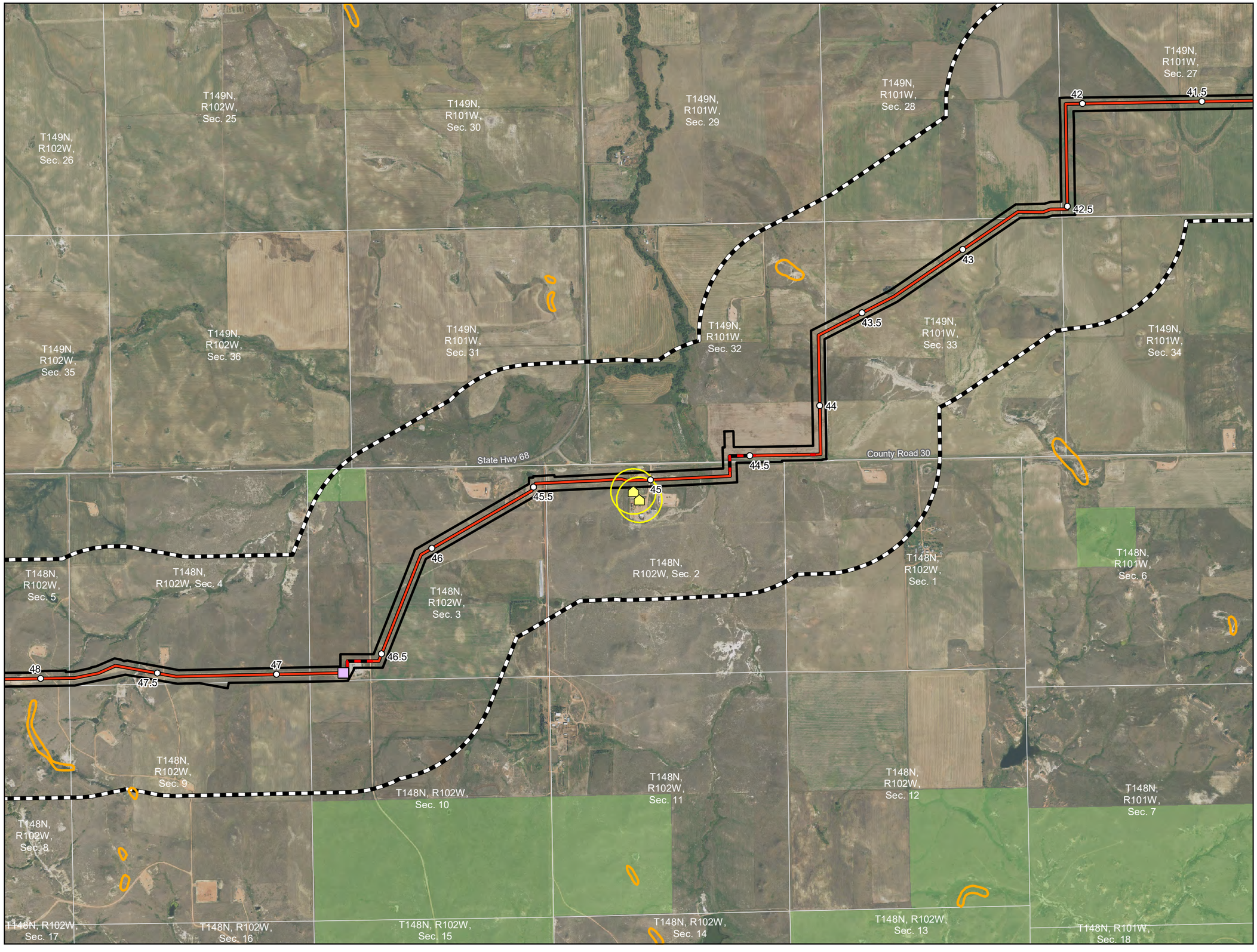
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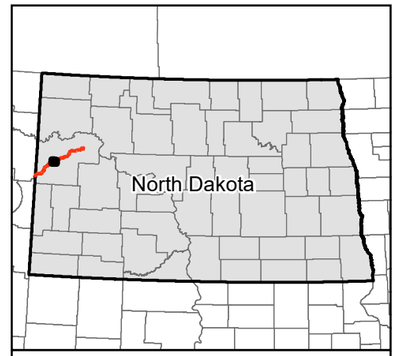
For Environmental Review Purposes Only

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Source: Z:\Clients\M_P\ONEOK\Demicks_Lake_Pipeline\Permitting\PSC\20181107\Figures\DLP_PSC_Avoidance_Exclusion_Area_Map_Book.mxd

Date: (11/8/2018)





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ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 8 of 14

McKenzie County, ND

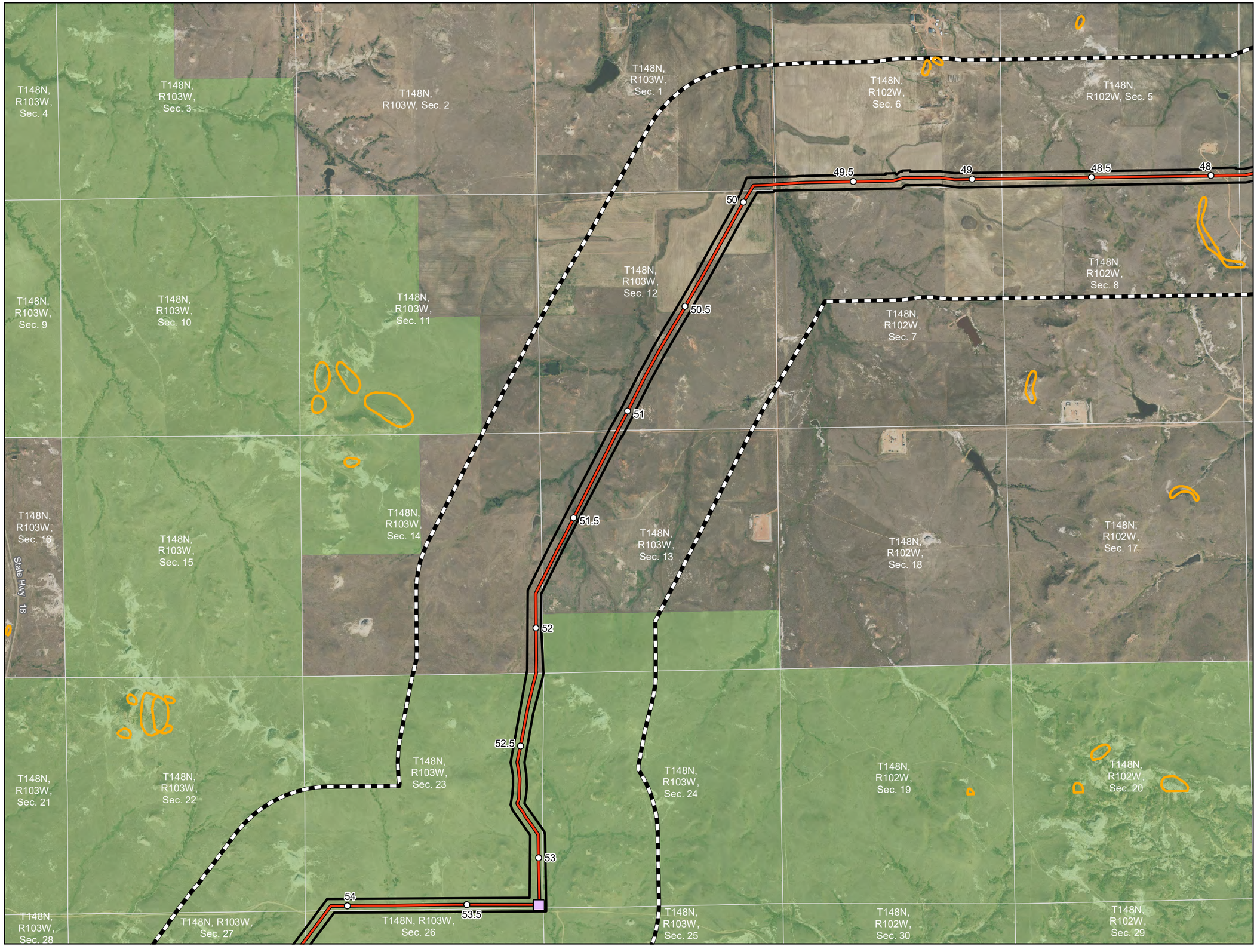
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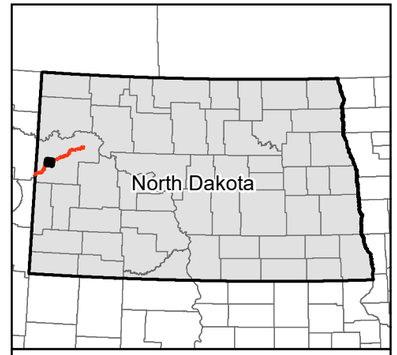
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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 9 of 14

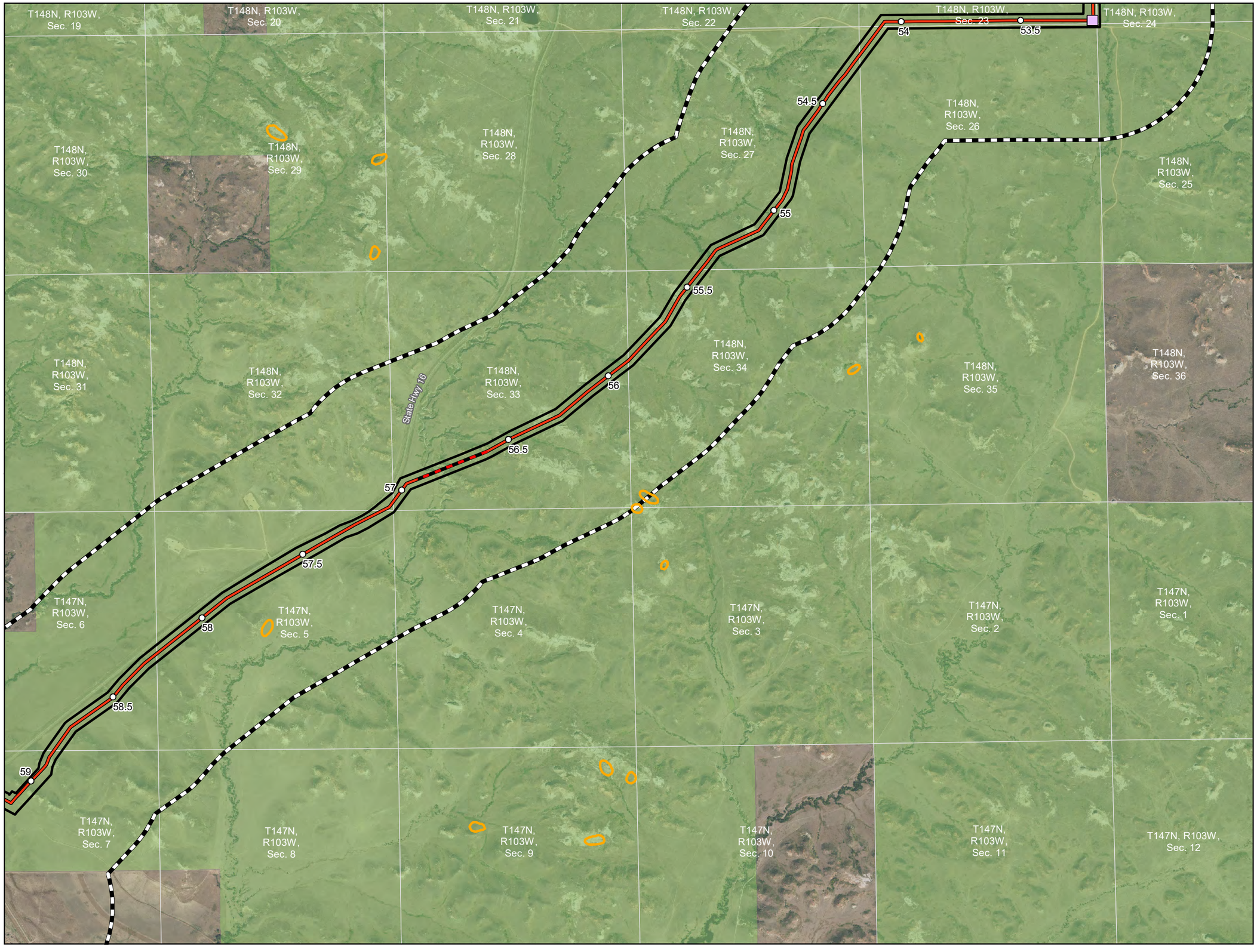
McKenzie County, ND

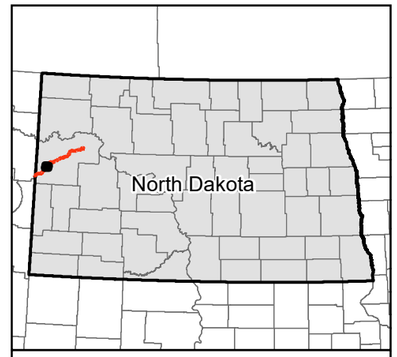
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Avoidance and Exclusion Maps

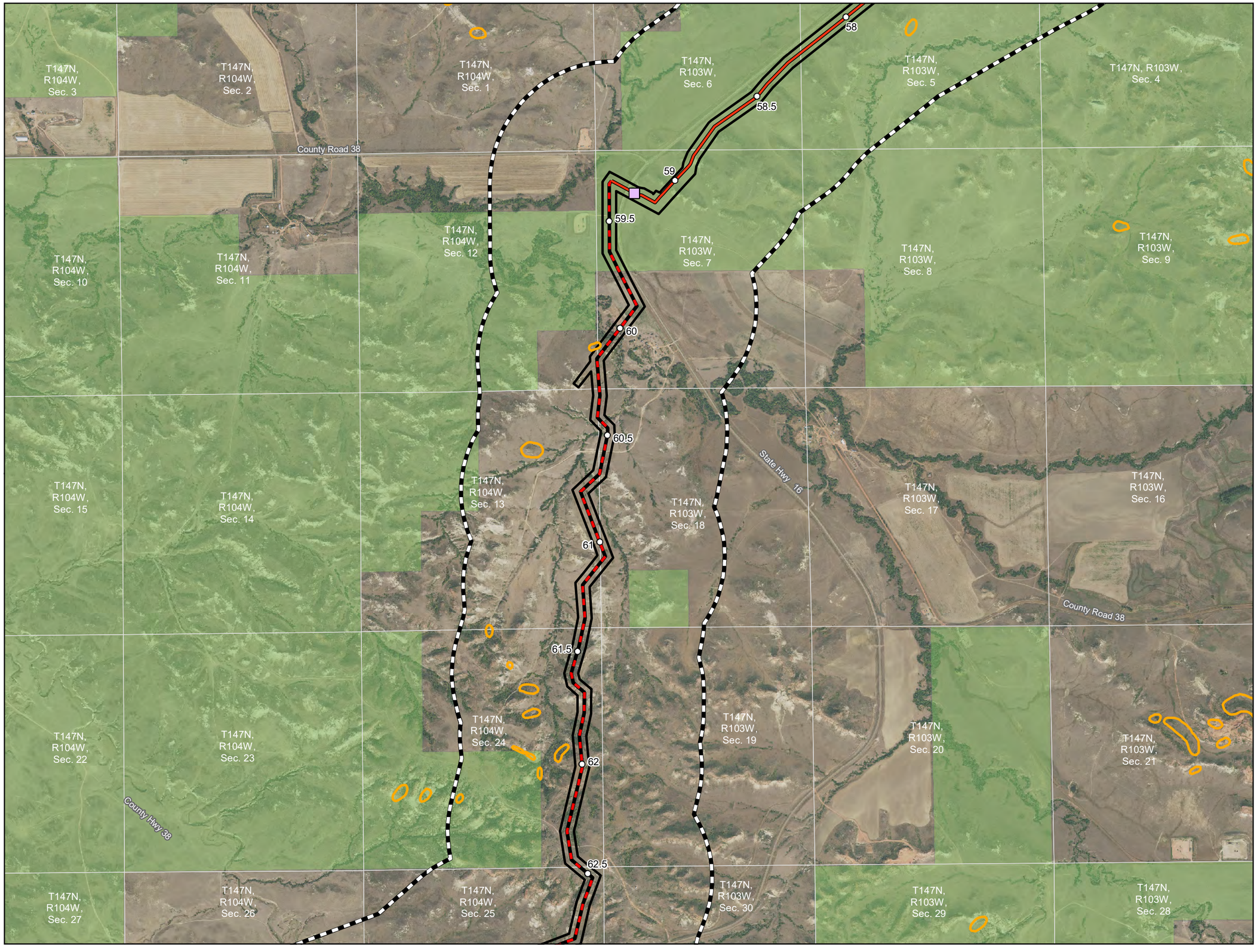
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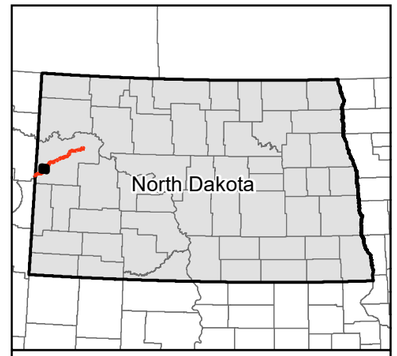
McKenzie County, ND

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Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 11 of 14

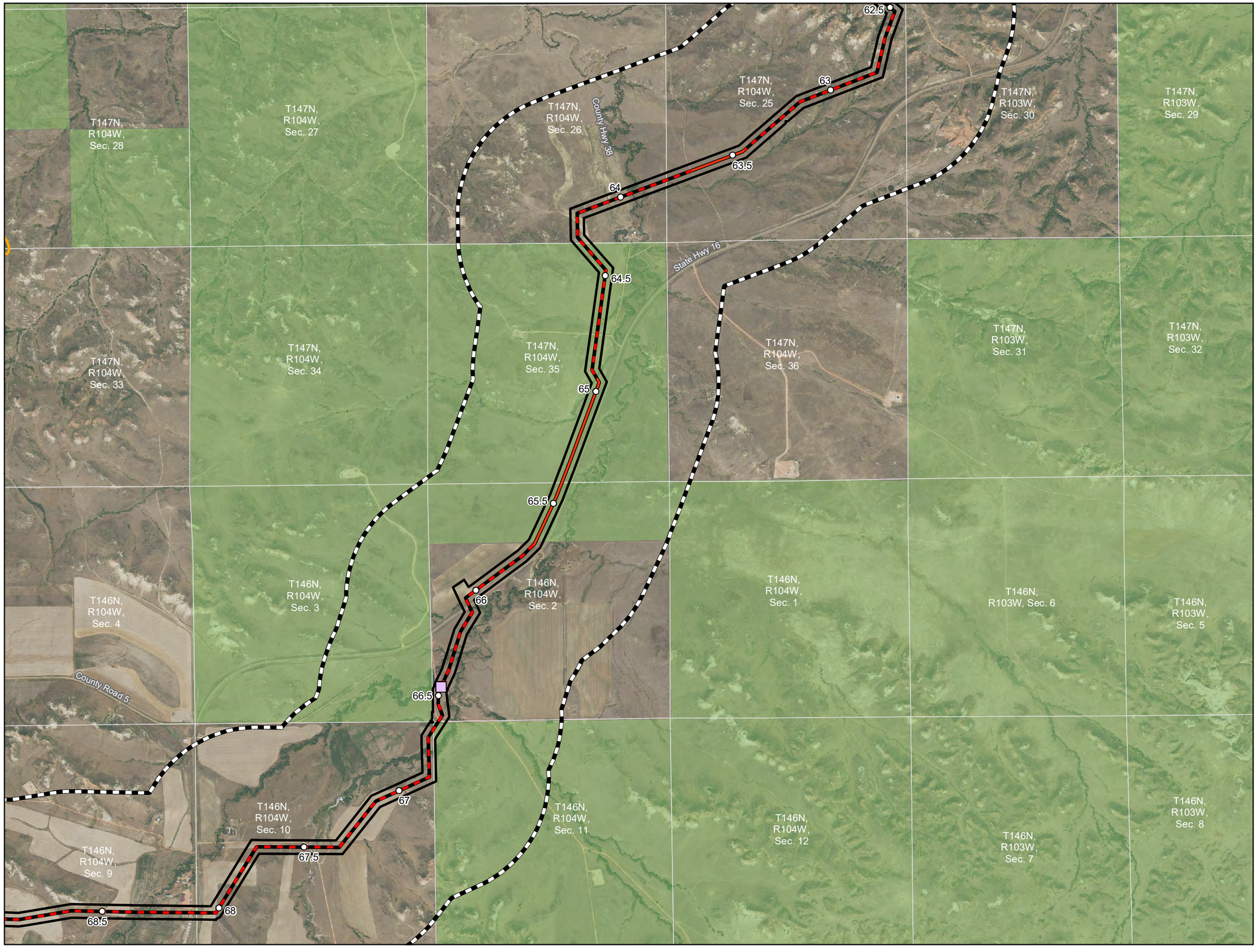
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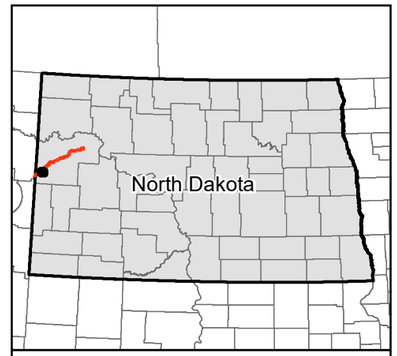
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ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

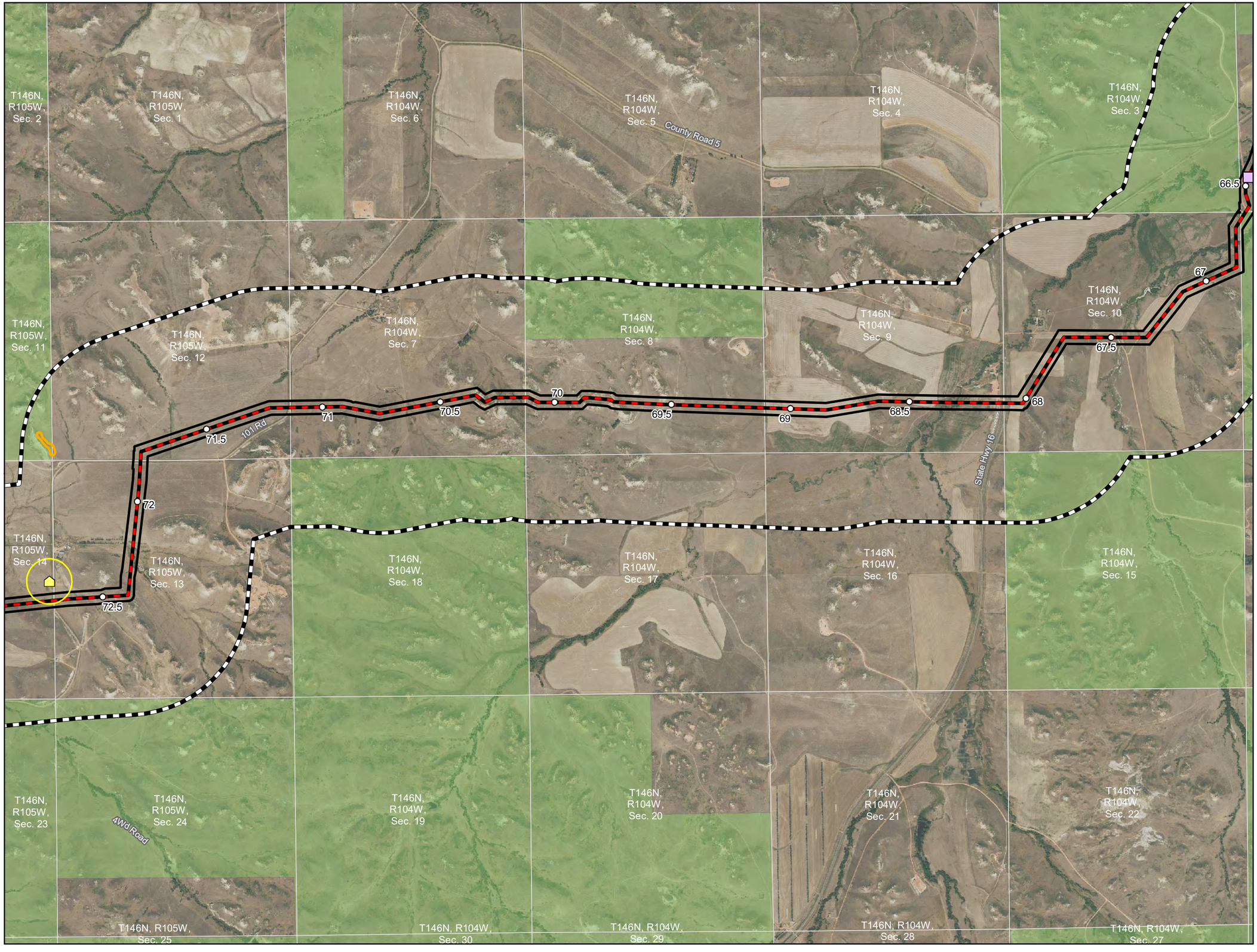
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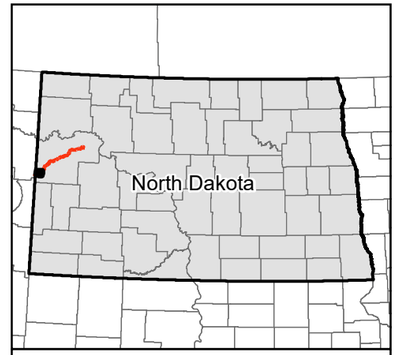
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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

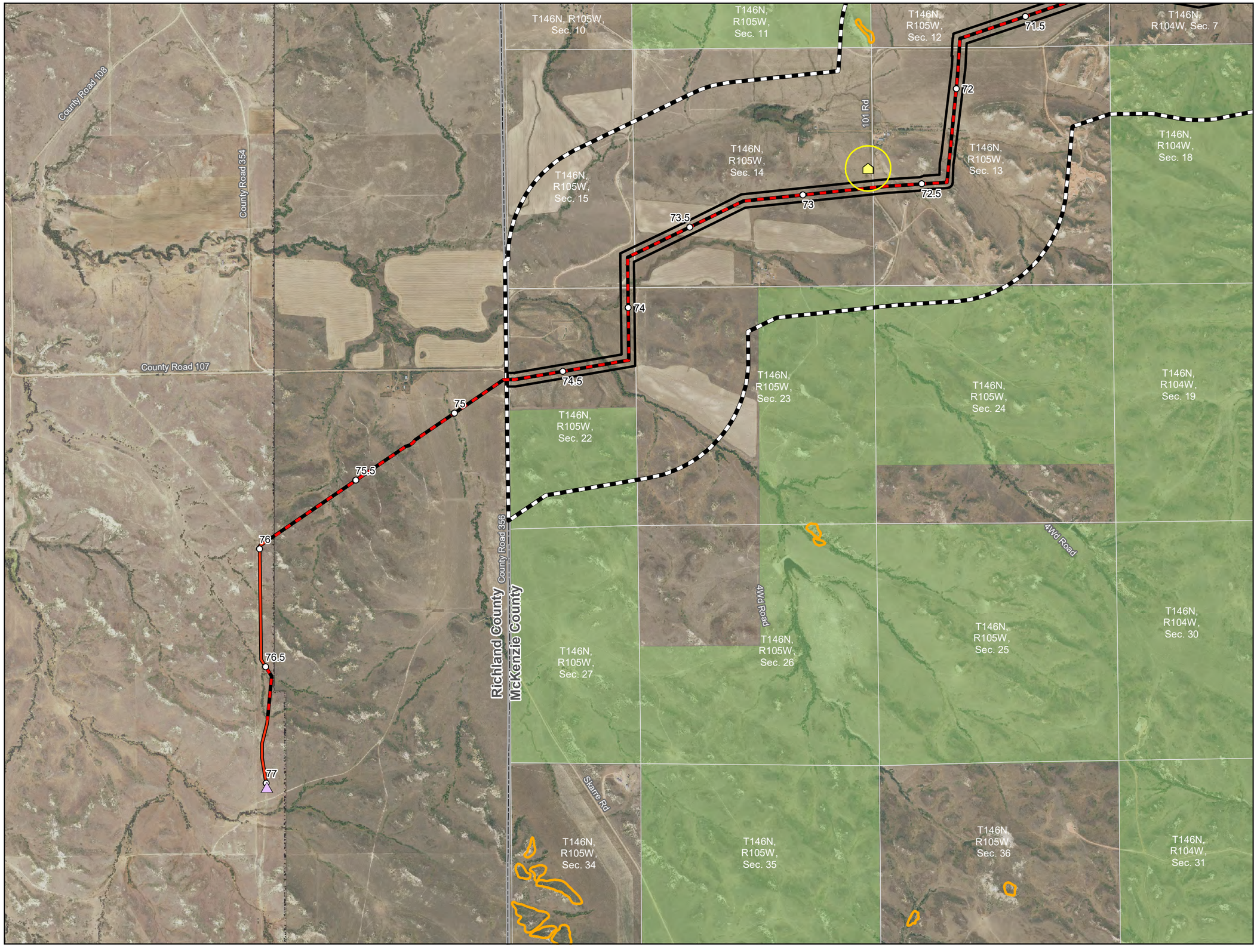
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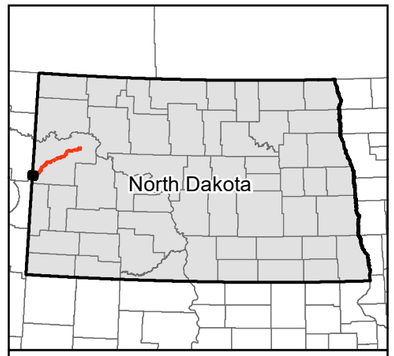
McKenzie County, ND

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Exhibit B.2
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Avoidance and Exclusion Maps

Page 14 of 14

McKenzie County, ND and Richland County, MT

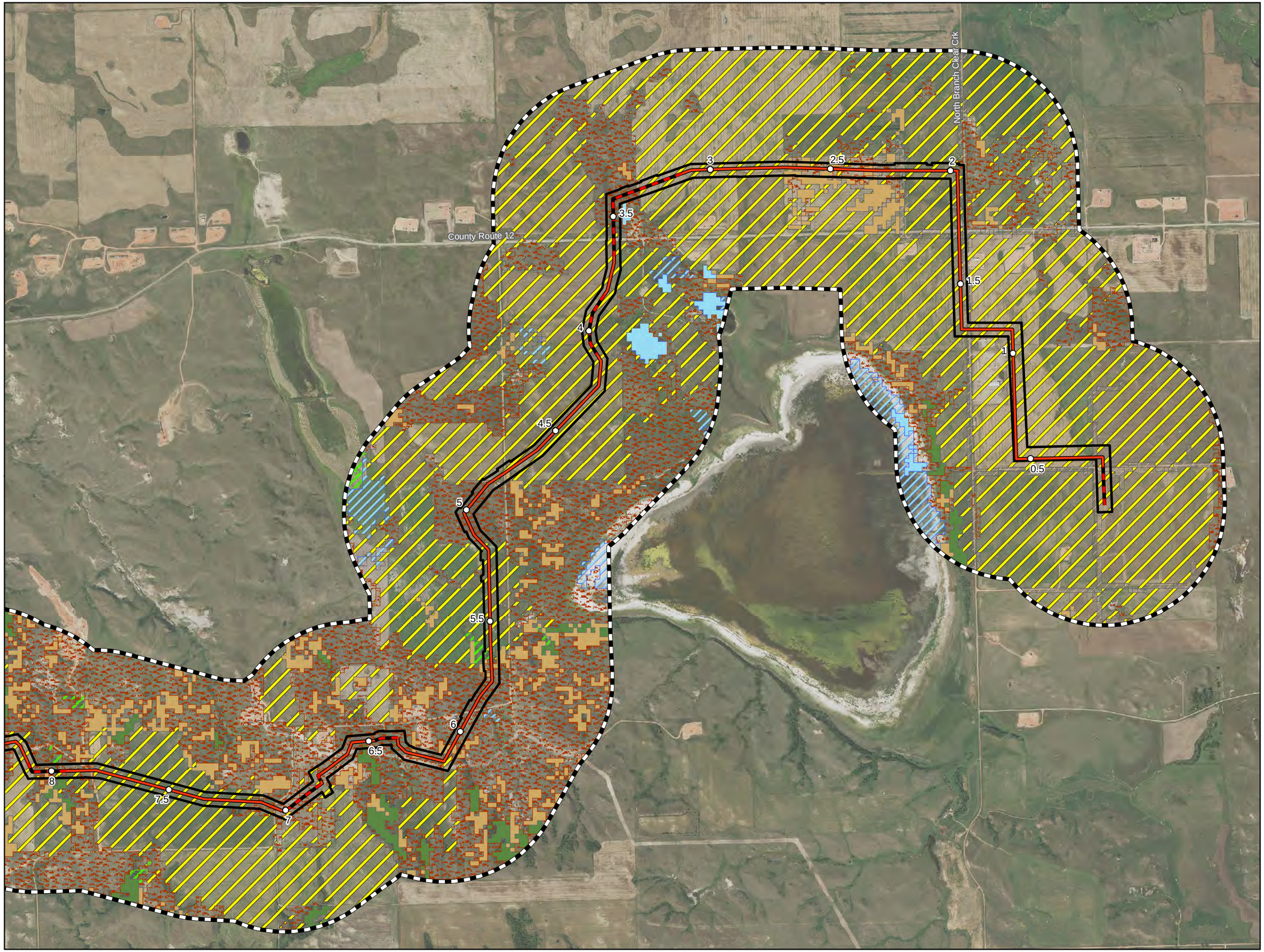
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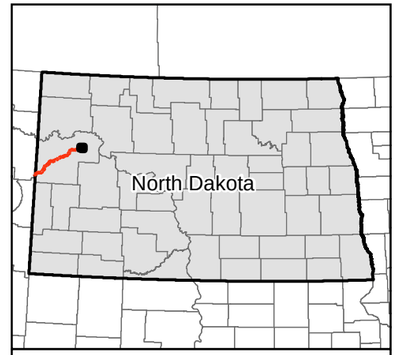
Date: (11/8/2018)

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11/8/2018

B.3 Land Use/Land Cover Maps





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Centerline: Co-located
- Centerline: Not Co-located
- Project Corridor
- 1-mile Study

LULC Classification

- Barren Land
- Cultivated Crops
- Forested
- Developed
- Emergent Herbaceous Wetlands
- Grassland/Herbaceous
- Hay/Pasture
- Open Water
- Shrub/Scrub
- Woody Wetlands

Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 1 of 14

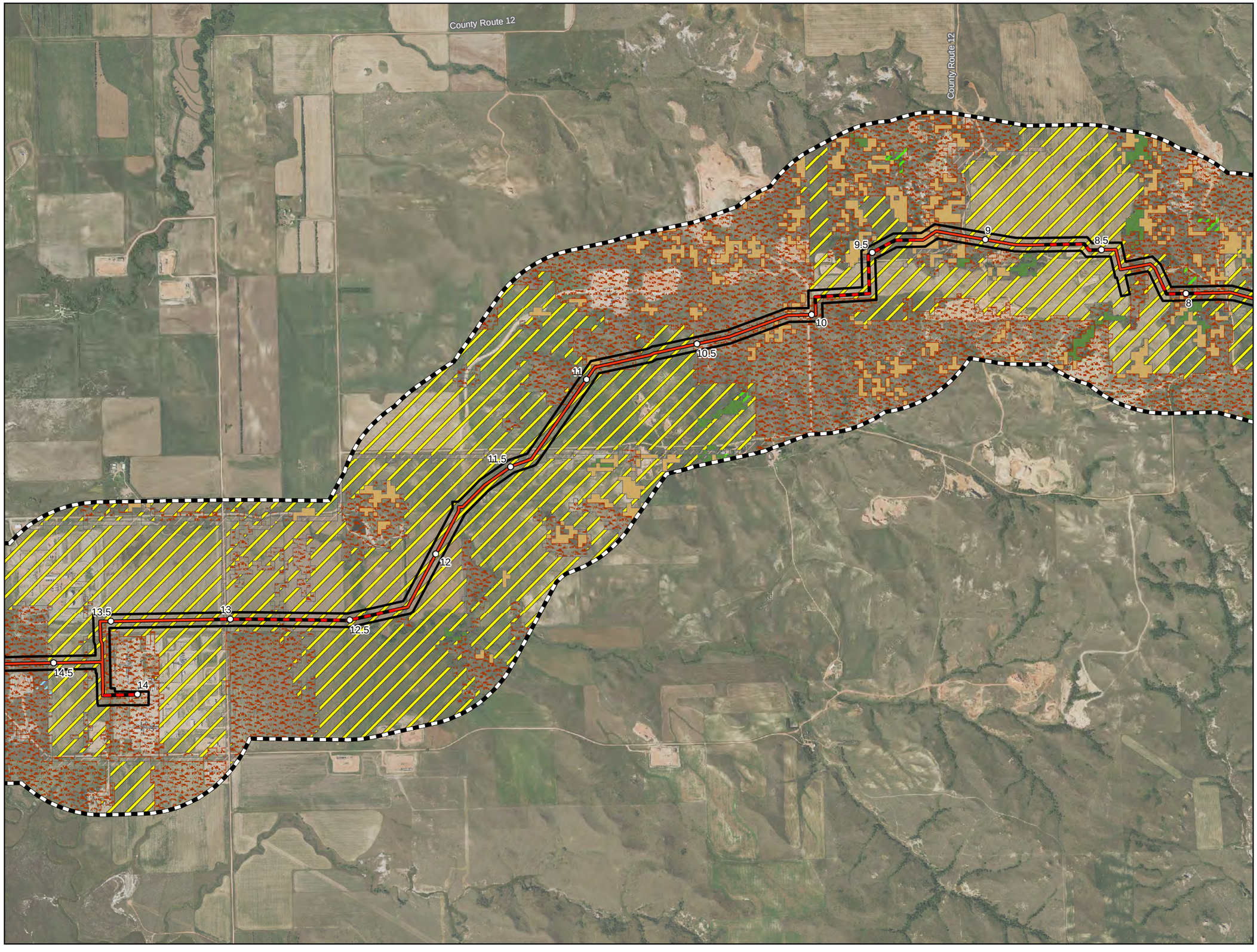
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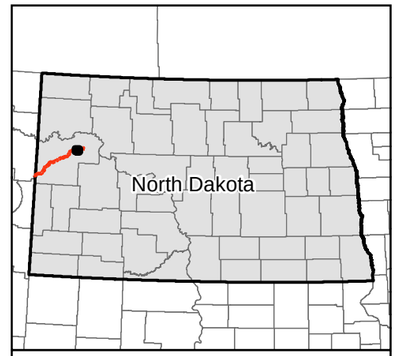
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Date: (11/8/2018)





0 1,000 2,000 Feet

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Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

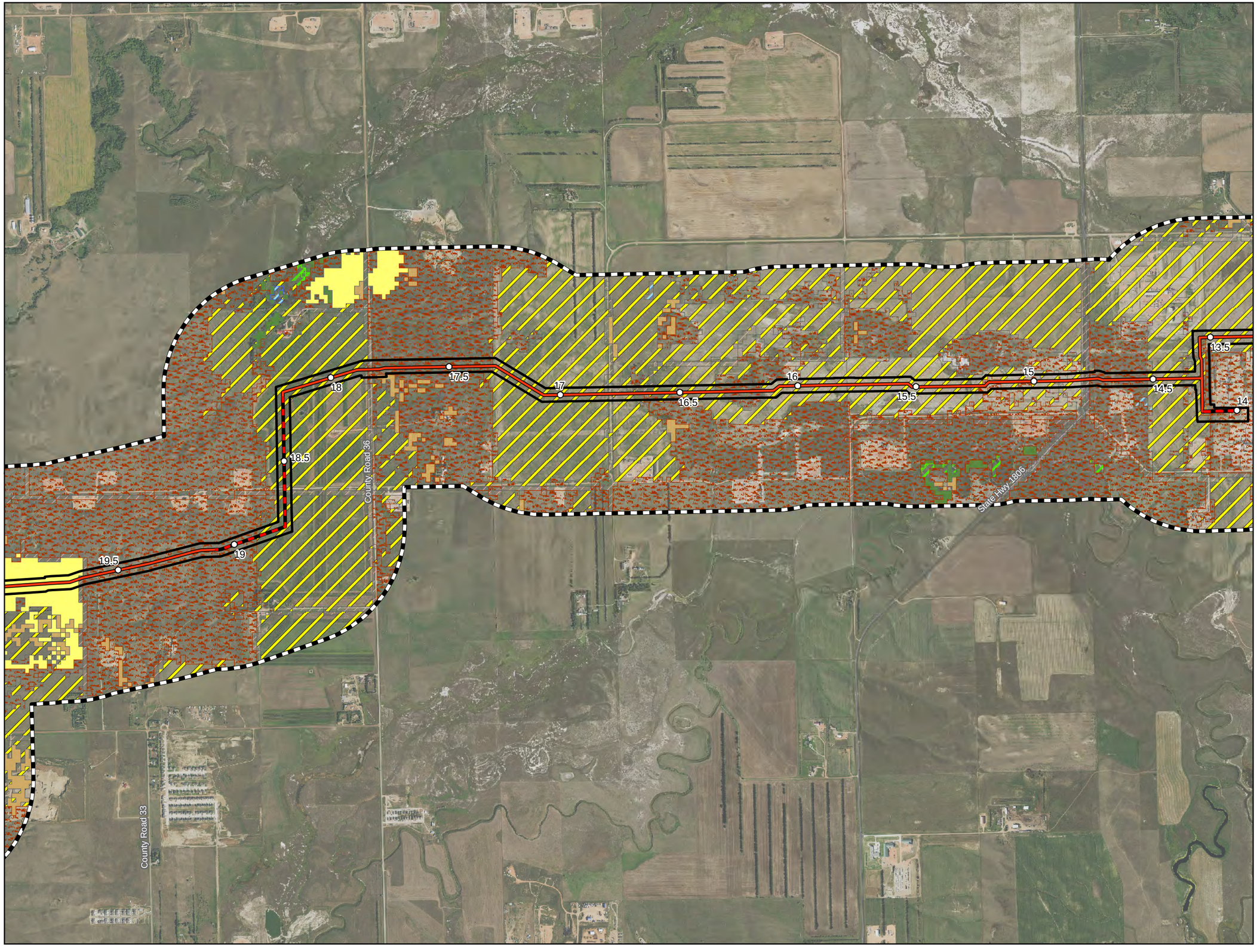
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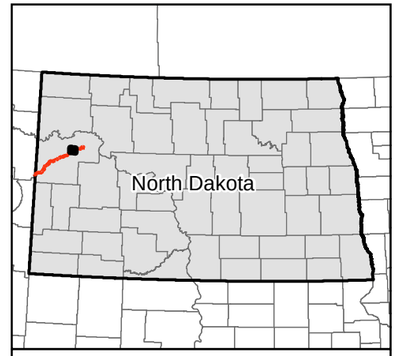
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 3 of 14

McKenzie County, ND

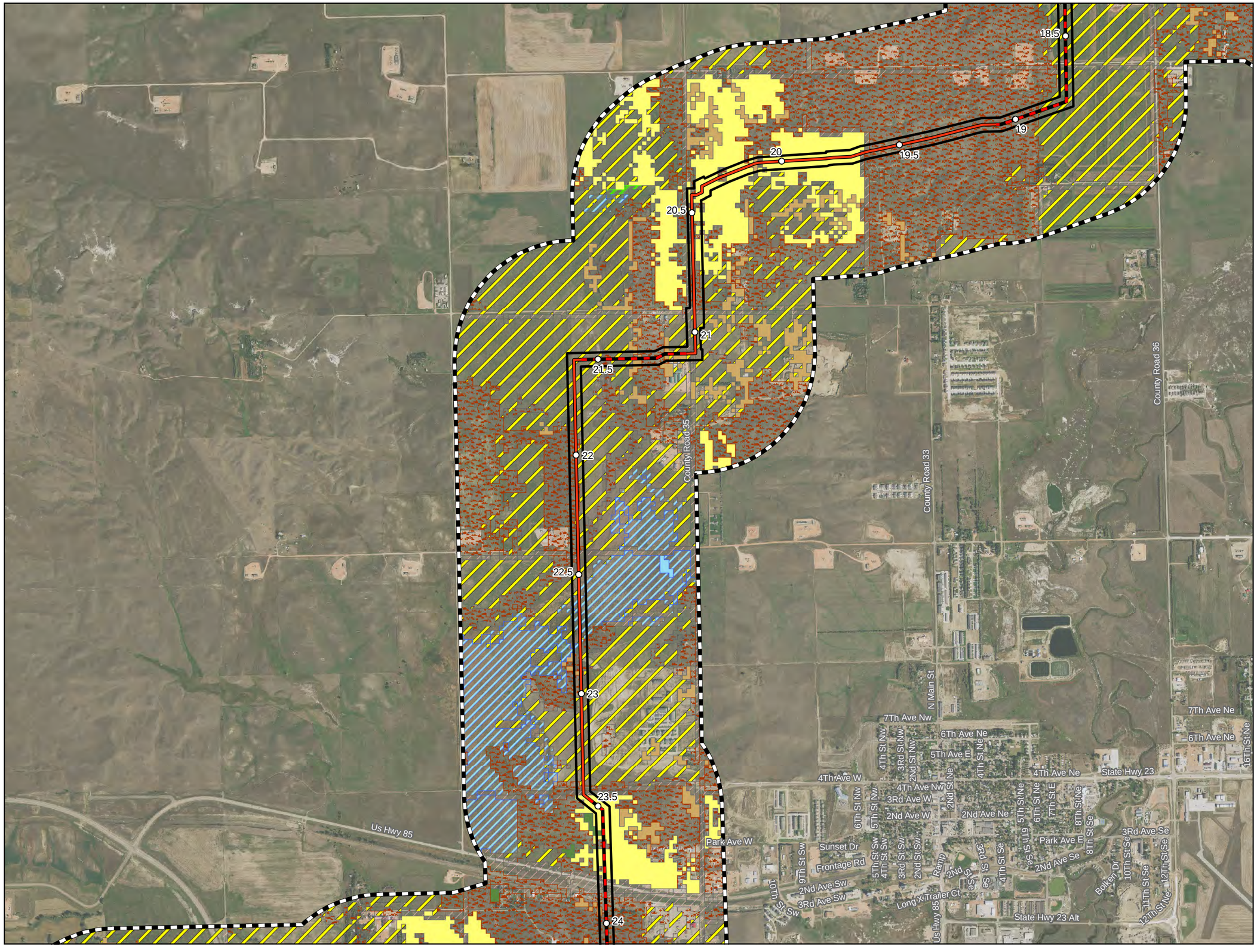
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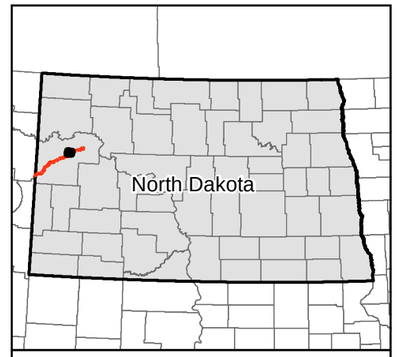
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 4 of 14

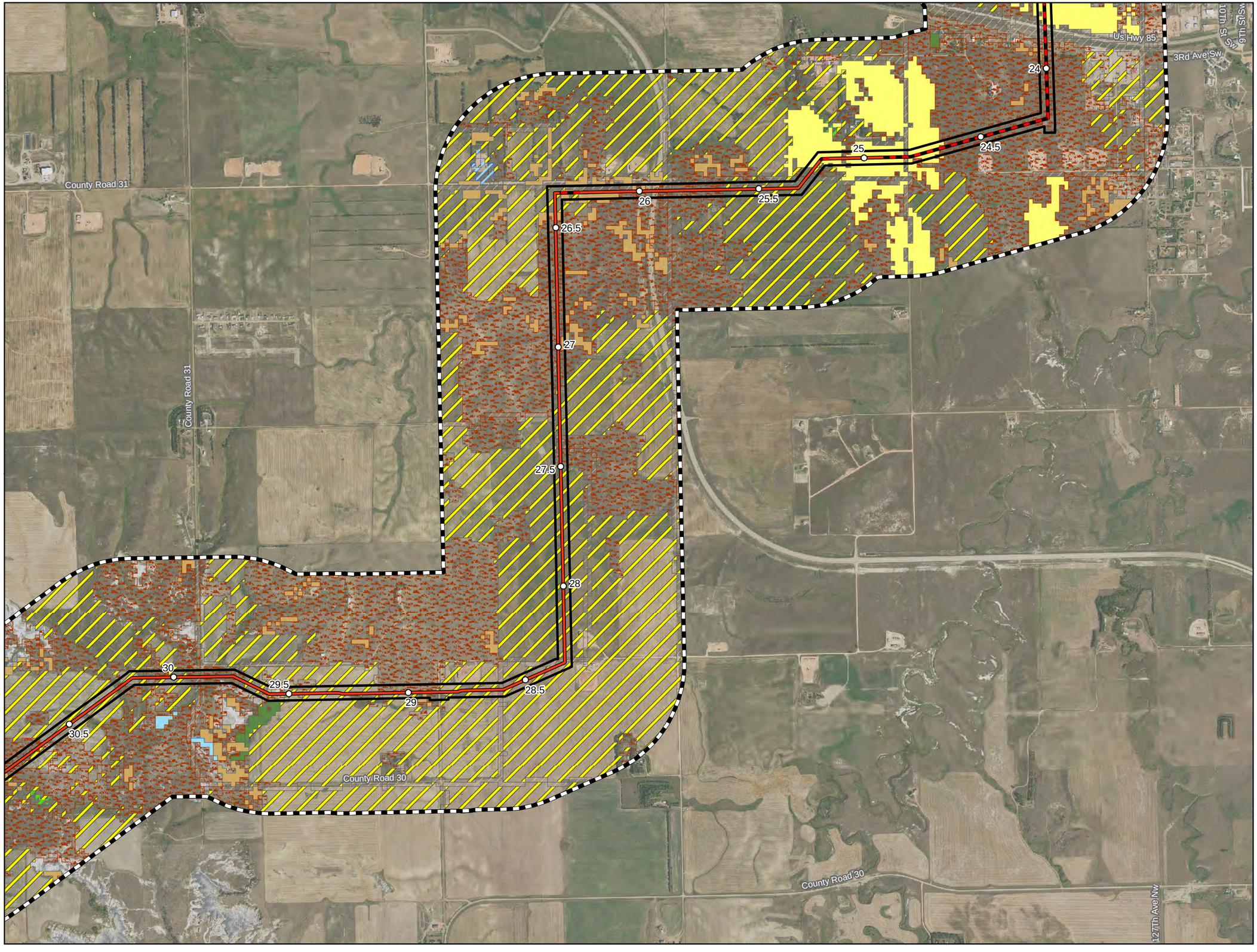
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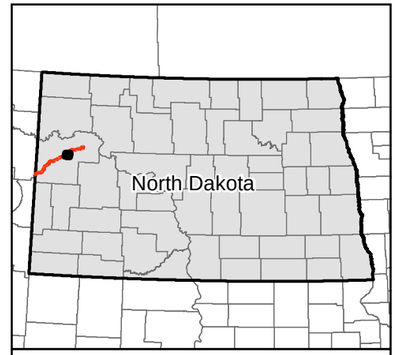
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 5 of 14

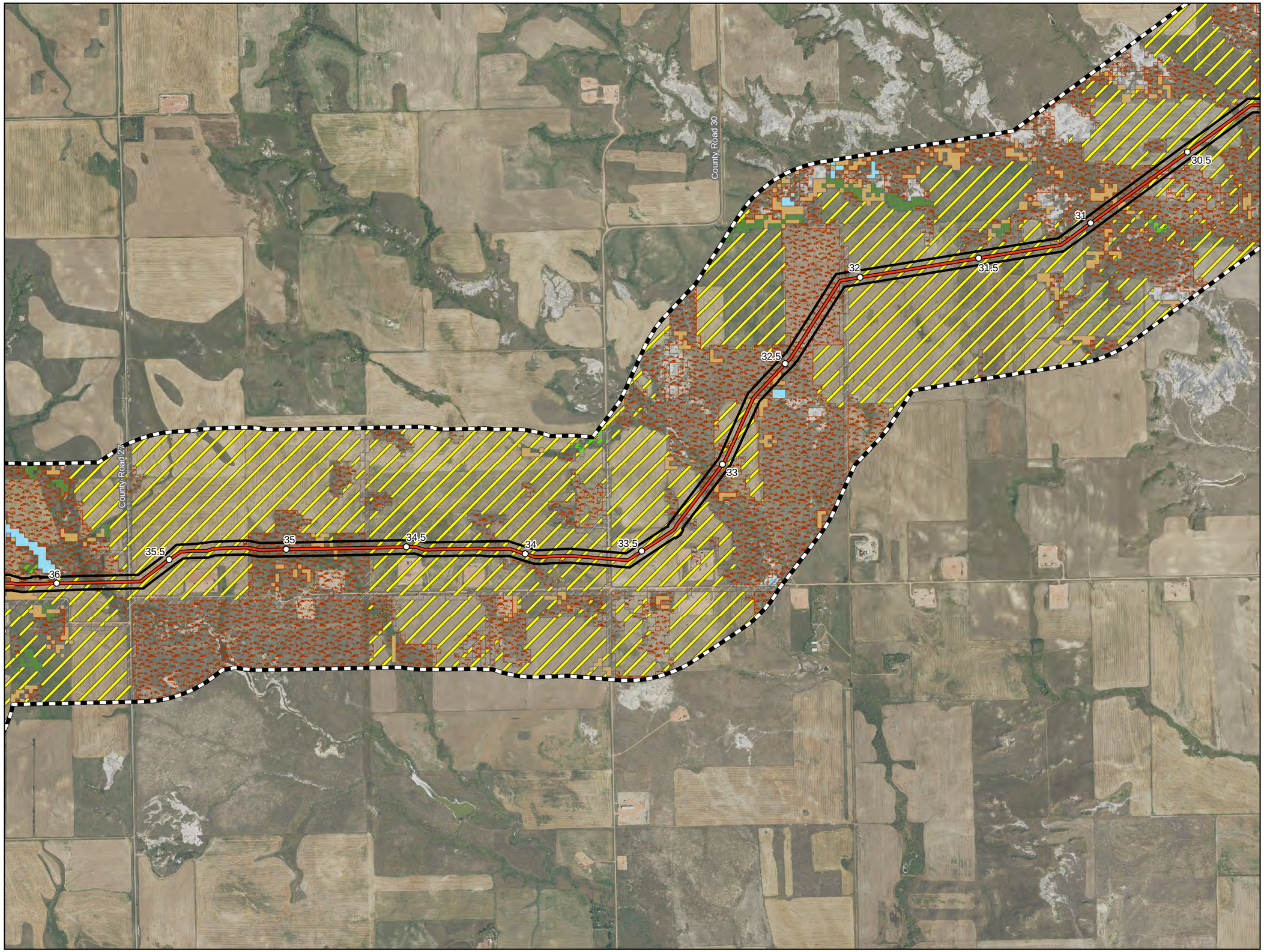
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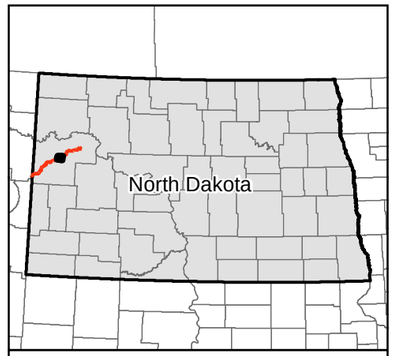
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For Environmental Review Purposes Only

11/8/2018





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- Woody Wetlands

Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 6 of 14

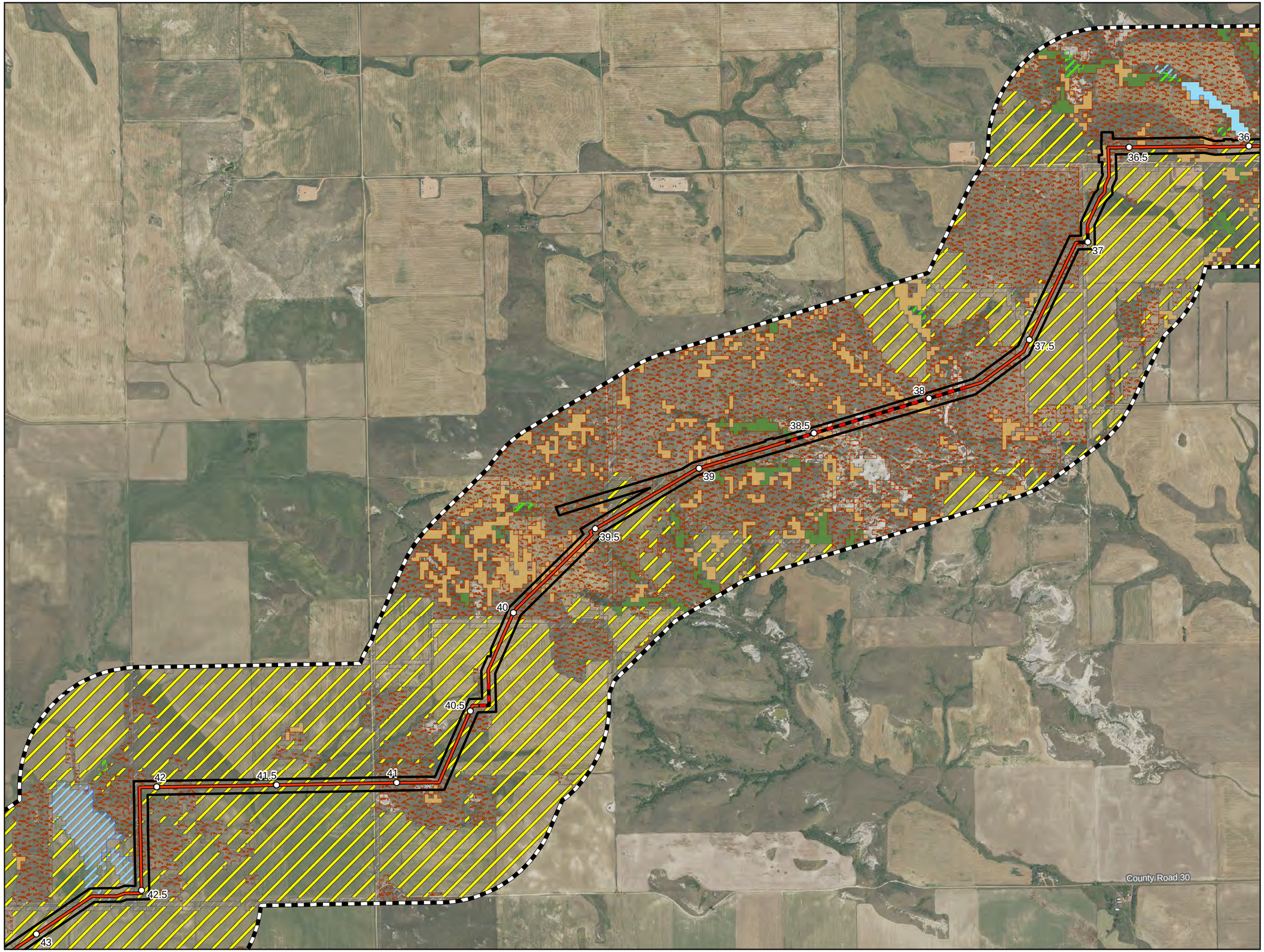
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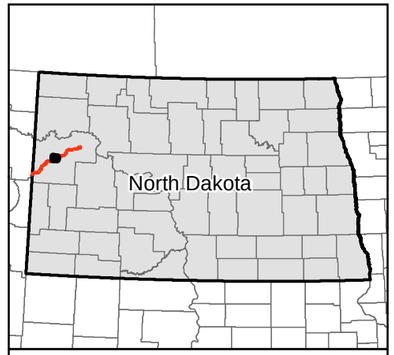
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11/8/2018

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Date: (11/8/2018)





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N
W E
S

- Milepost
- Centerline: Co-located
- Centerline: Not Co-located
- Project Corridor
- 1-mile Study

LULC Classification

- Barren Land
- Cultivated Crops
- Forested
- Developed
- Emergent Herbaceous Wetlands
- Grassland/Herbaceous
- Hay/Pasture
- Open Water
- Shrub/Scrub
- Woody Wetlands

Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 7 of 14

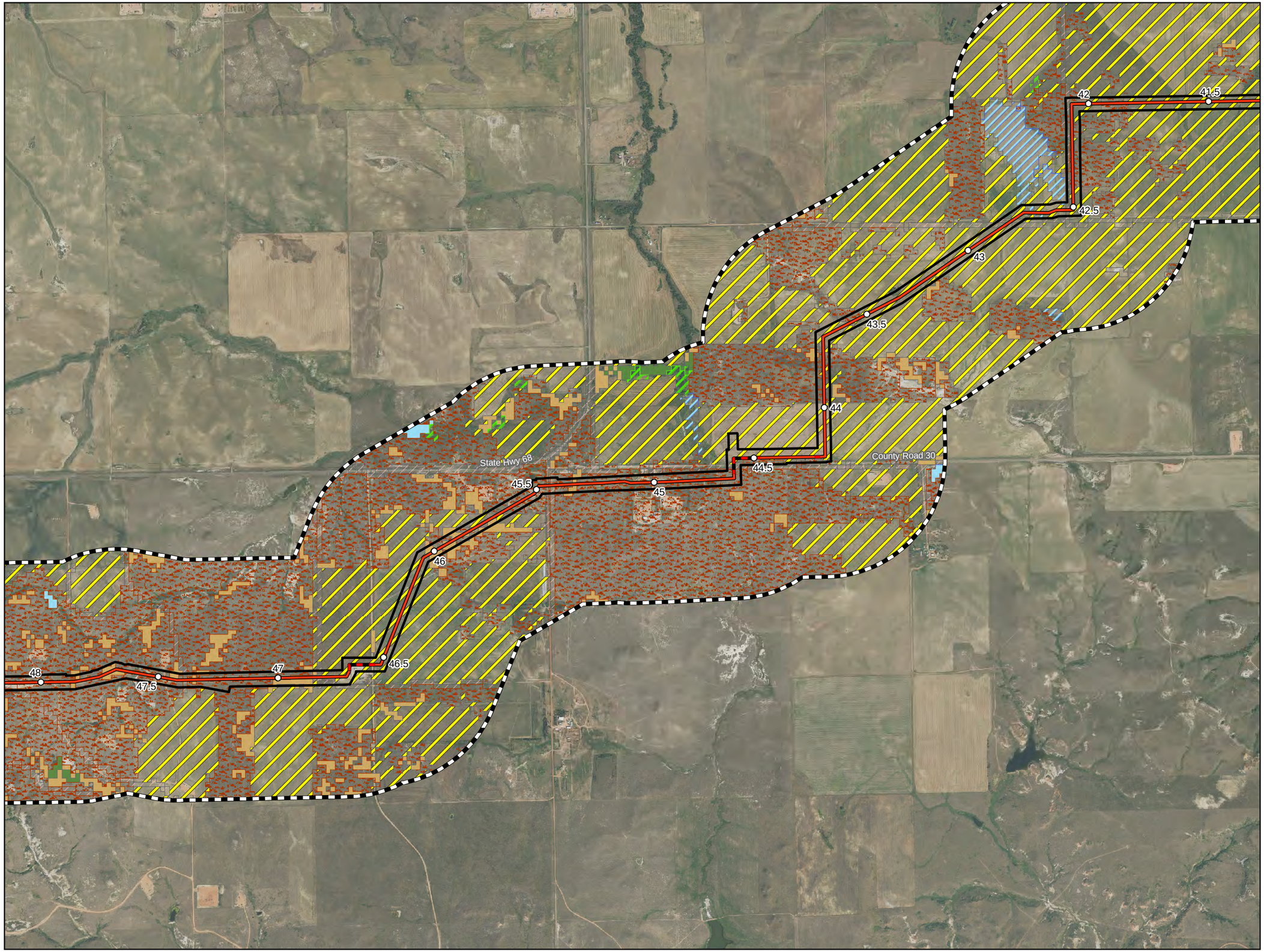
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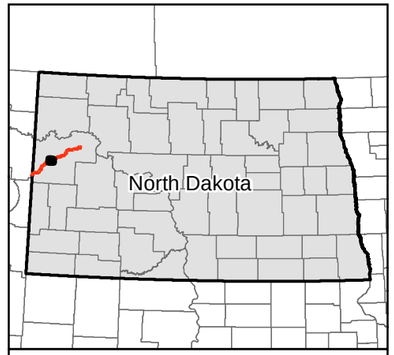
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Source: Z:\Clients\M_P\ONeok\Demicks_Lake_Pipeline\Permitting\PSC\20181114\Figures\DLP_PSC_Land_Use_Map_Book.mxd
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

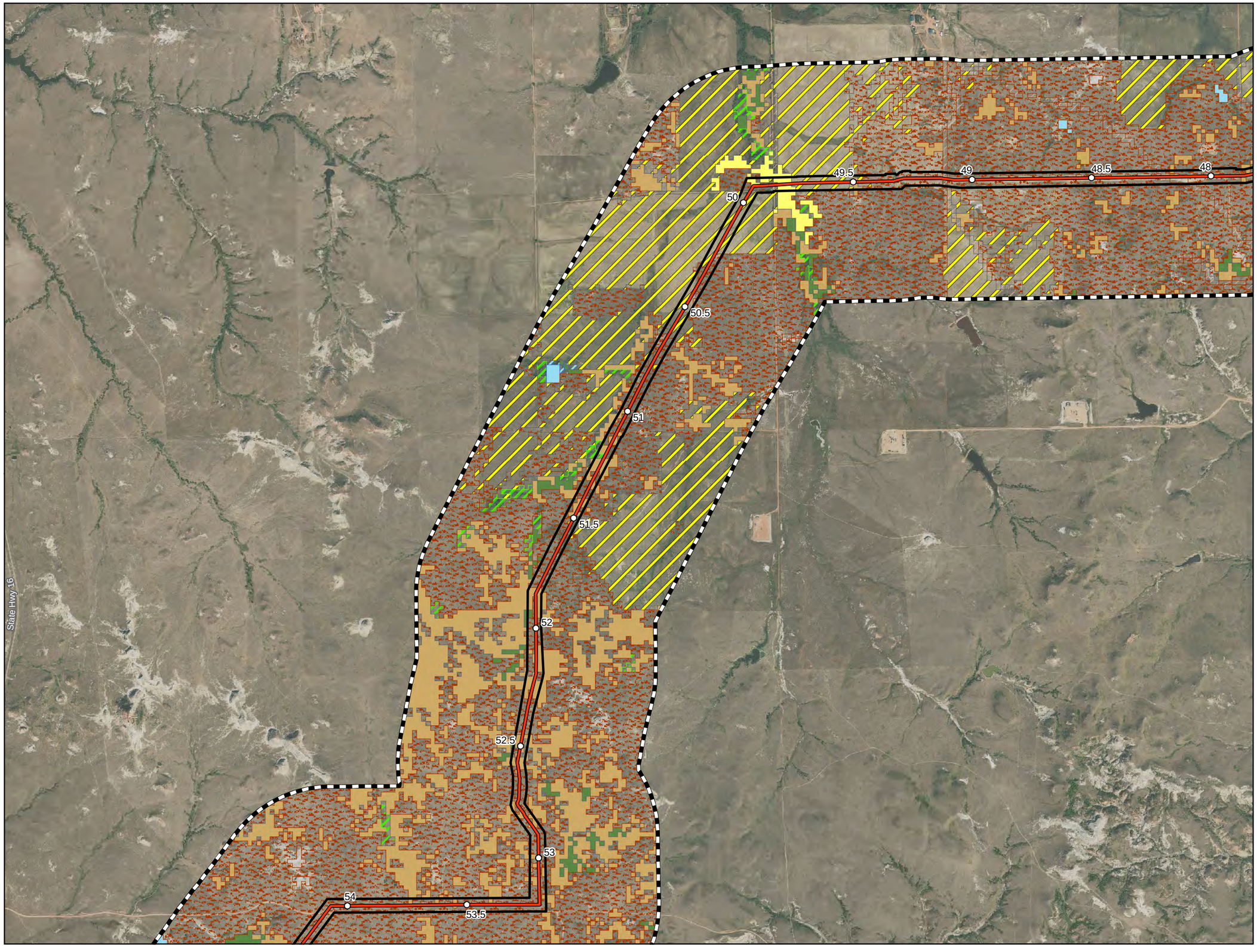
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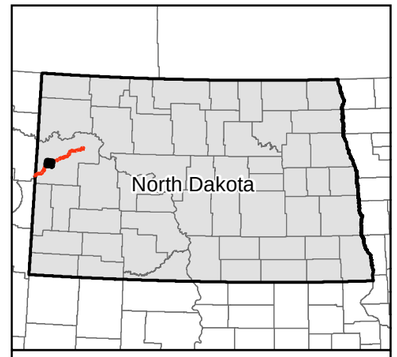
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Demicks Lake Pipeline Project

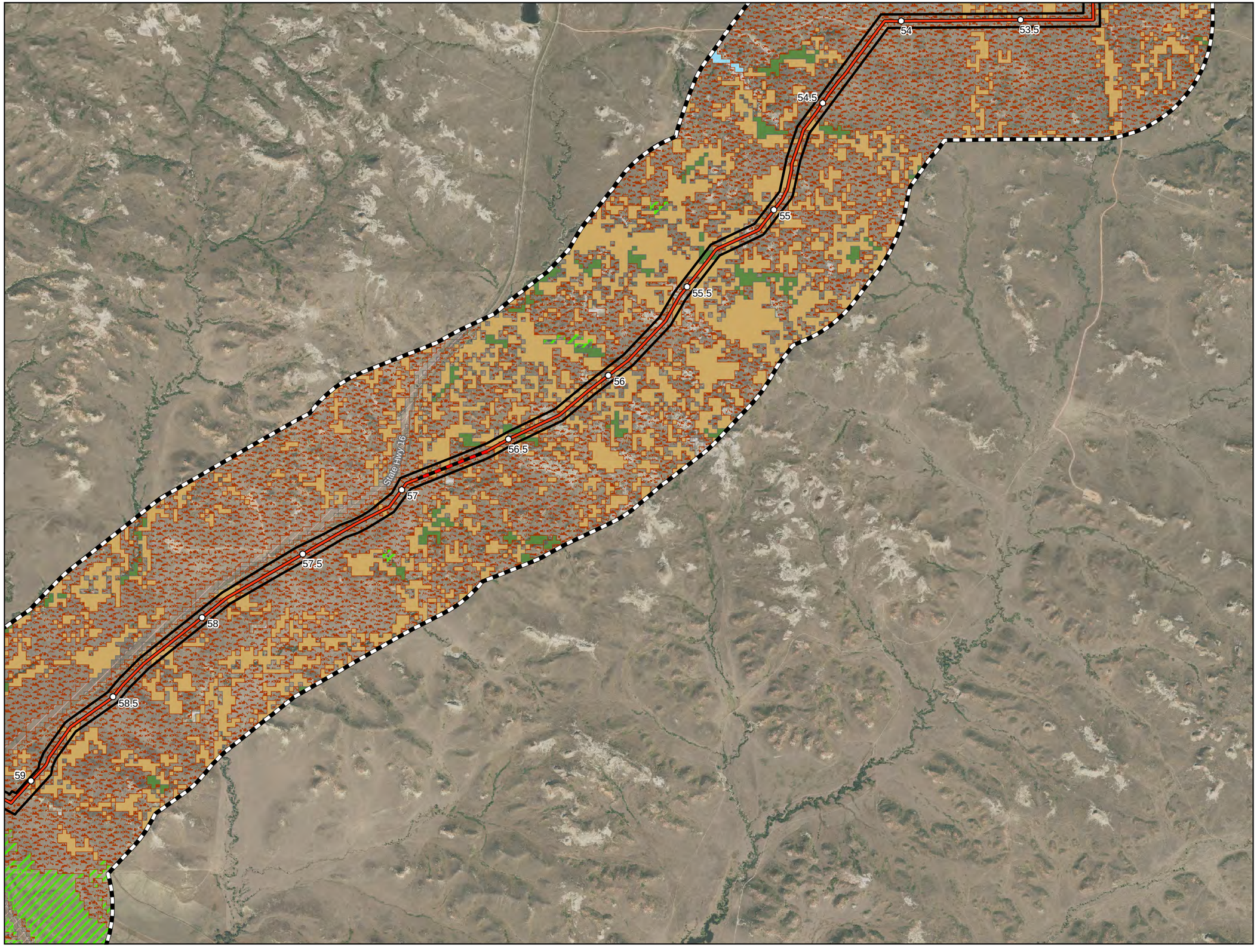
Land Use/Land Cover Maps

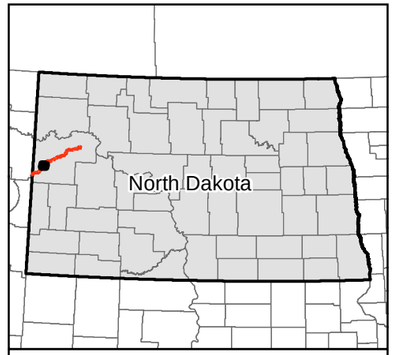
McKenzie County, ND

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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 10 of 14

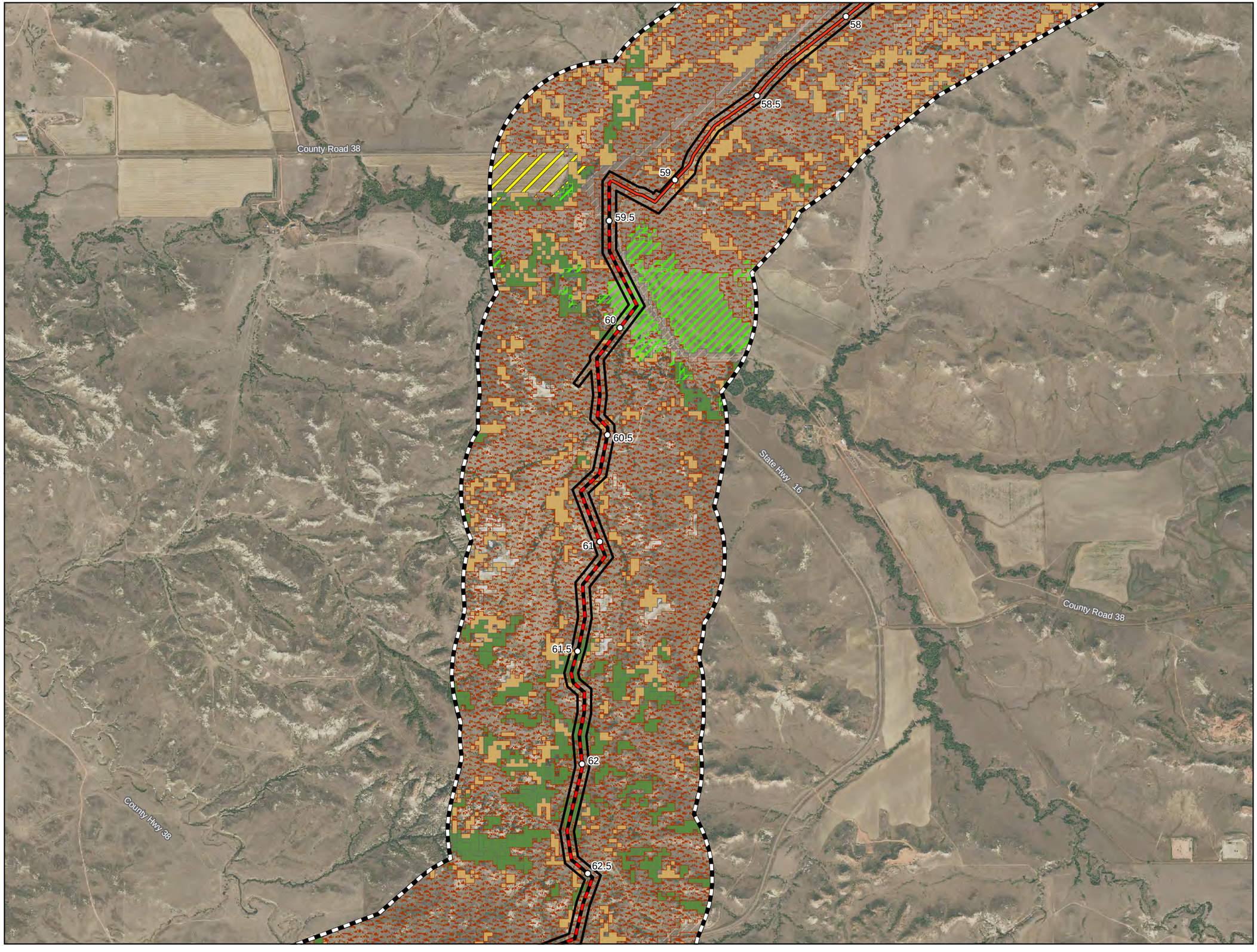
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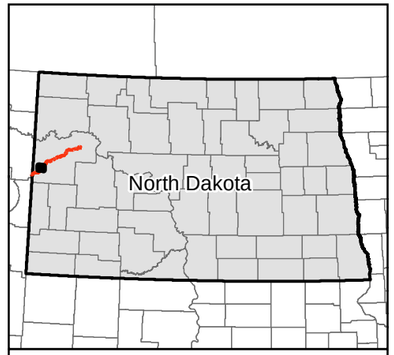
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

Page 11 of 14

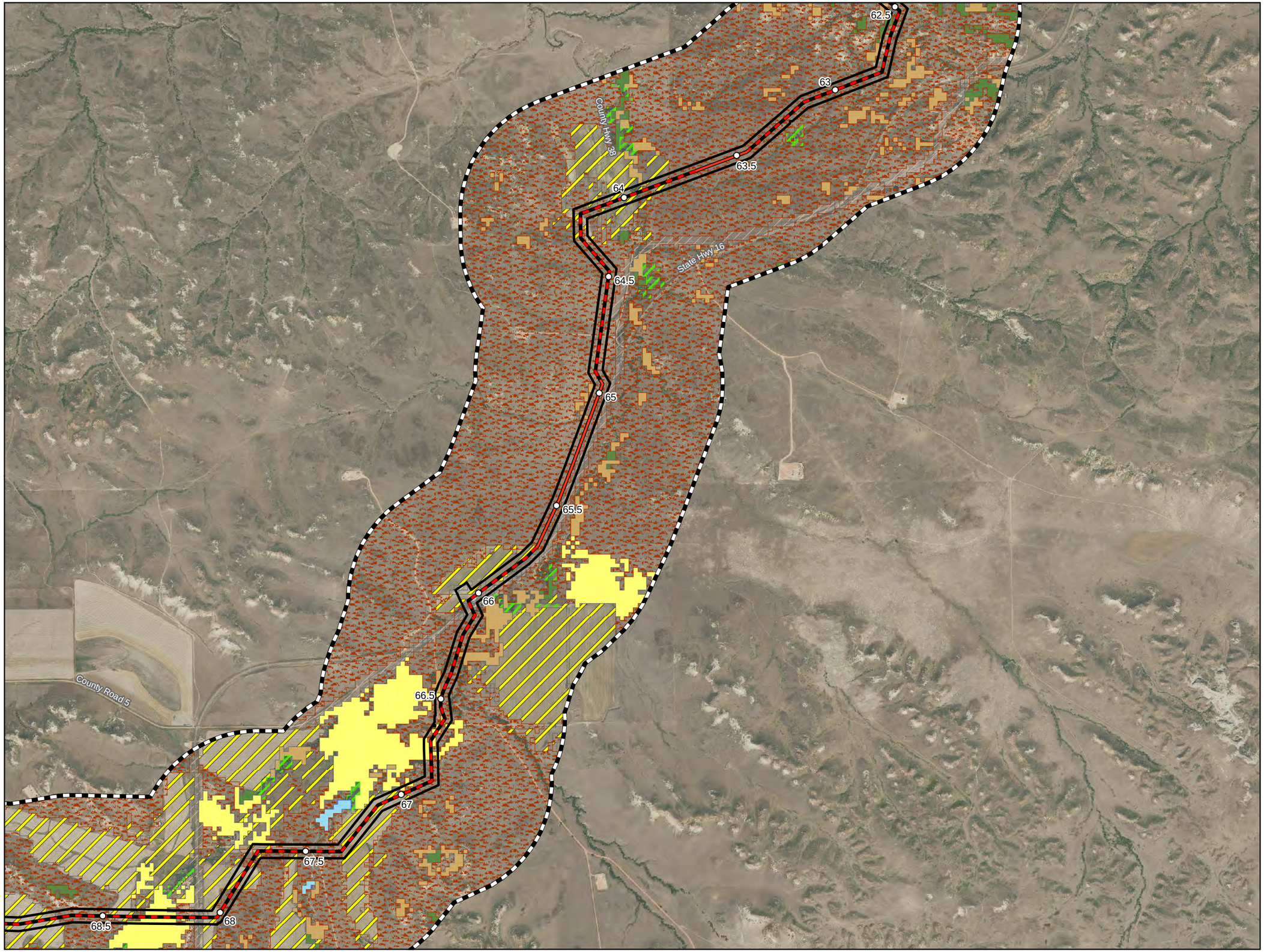
McKenzie County, ND

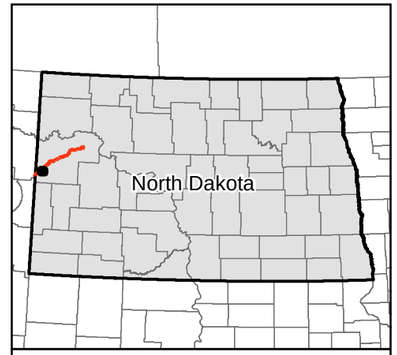
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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

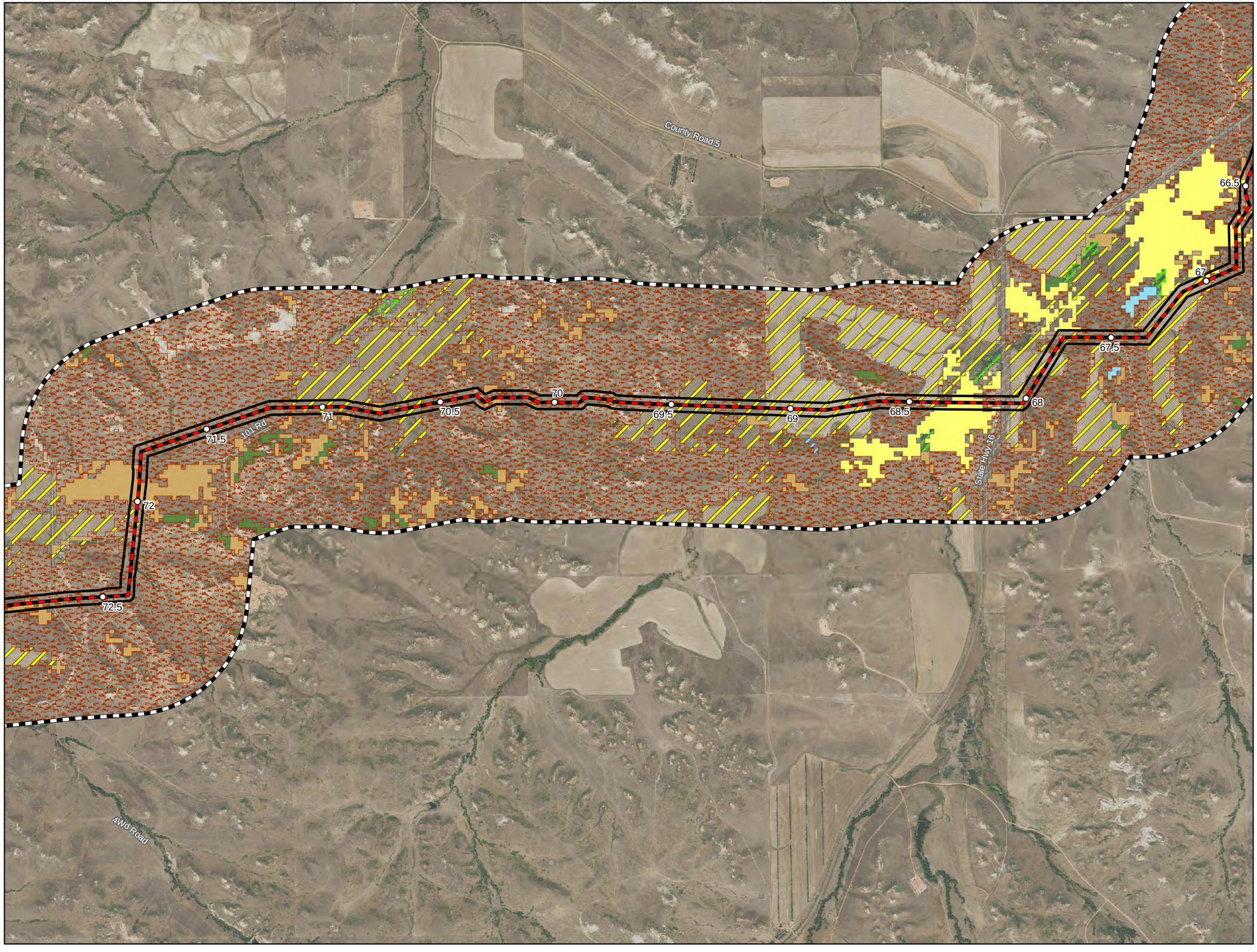
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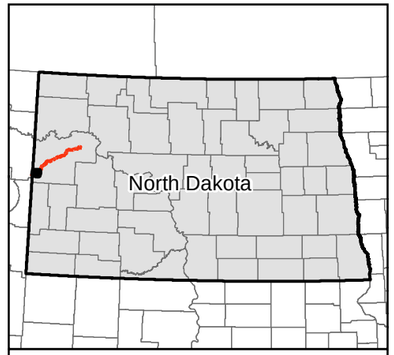
McKenzie County, ND

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11/8/2018





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Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

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Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

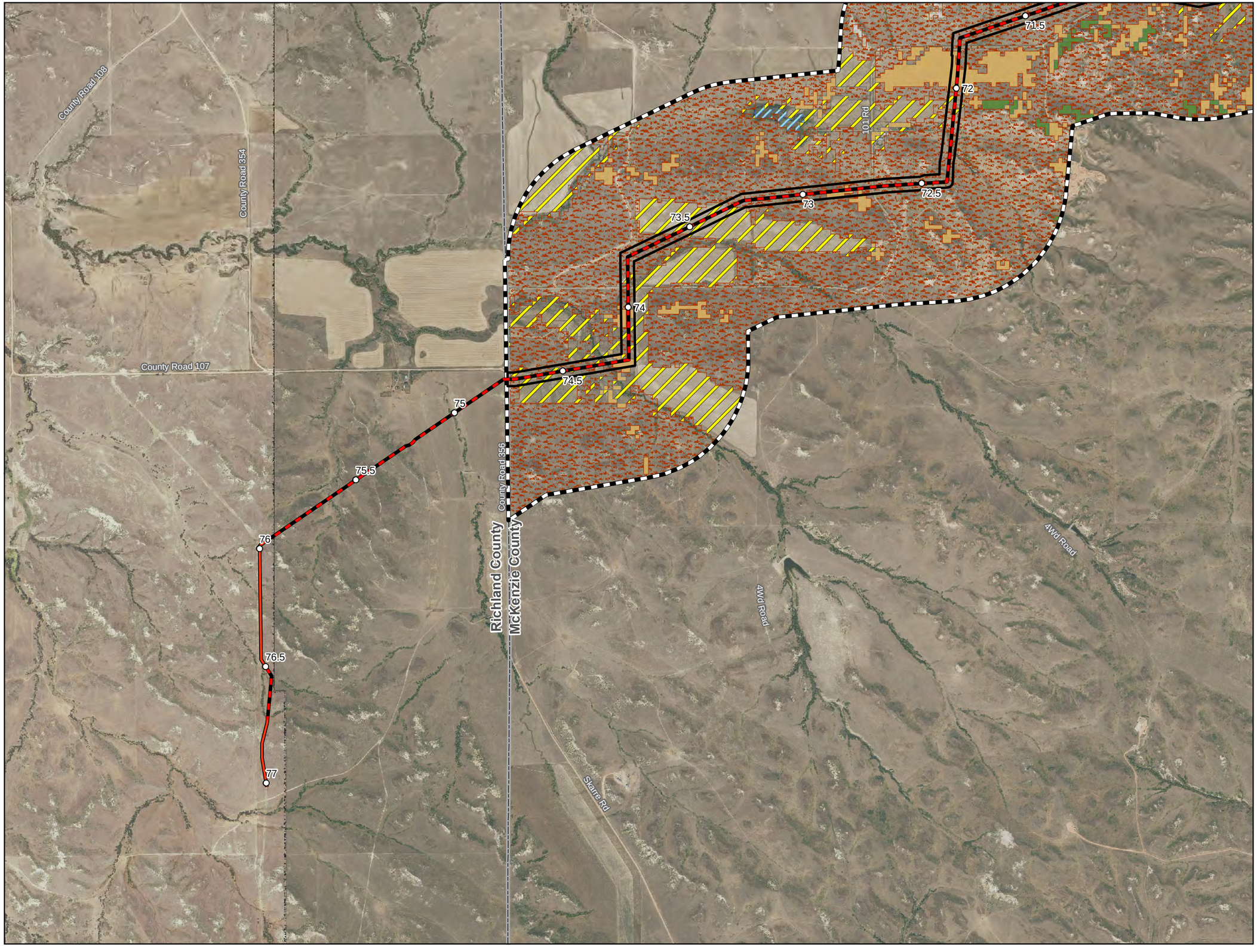
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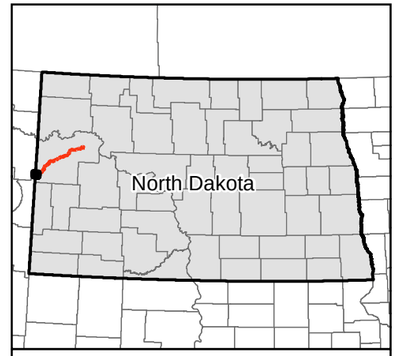
McKenzie County, ND

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0 1,000 2,000 Feet

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Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

- Milepost
- Centerline: Co-located
- Centerline: Not Co-located
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LULC Classification

- Barren Land
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- Grassland/Herbaceous
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- Open Water
- Shrub/Scrub
- Woody Wetlands

Exhibit B.3
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Land Use/Land Cover Maps

McKenzie County, ND and Richland County, MT

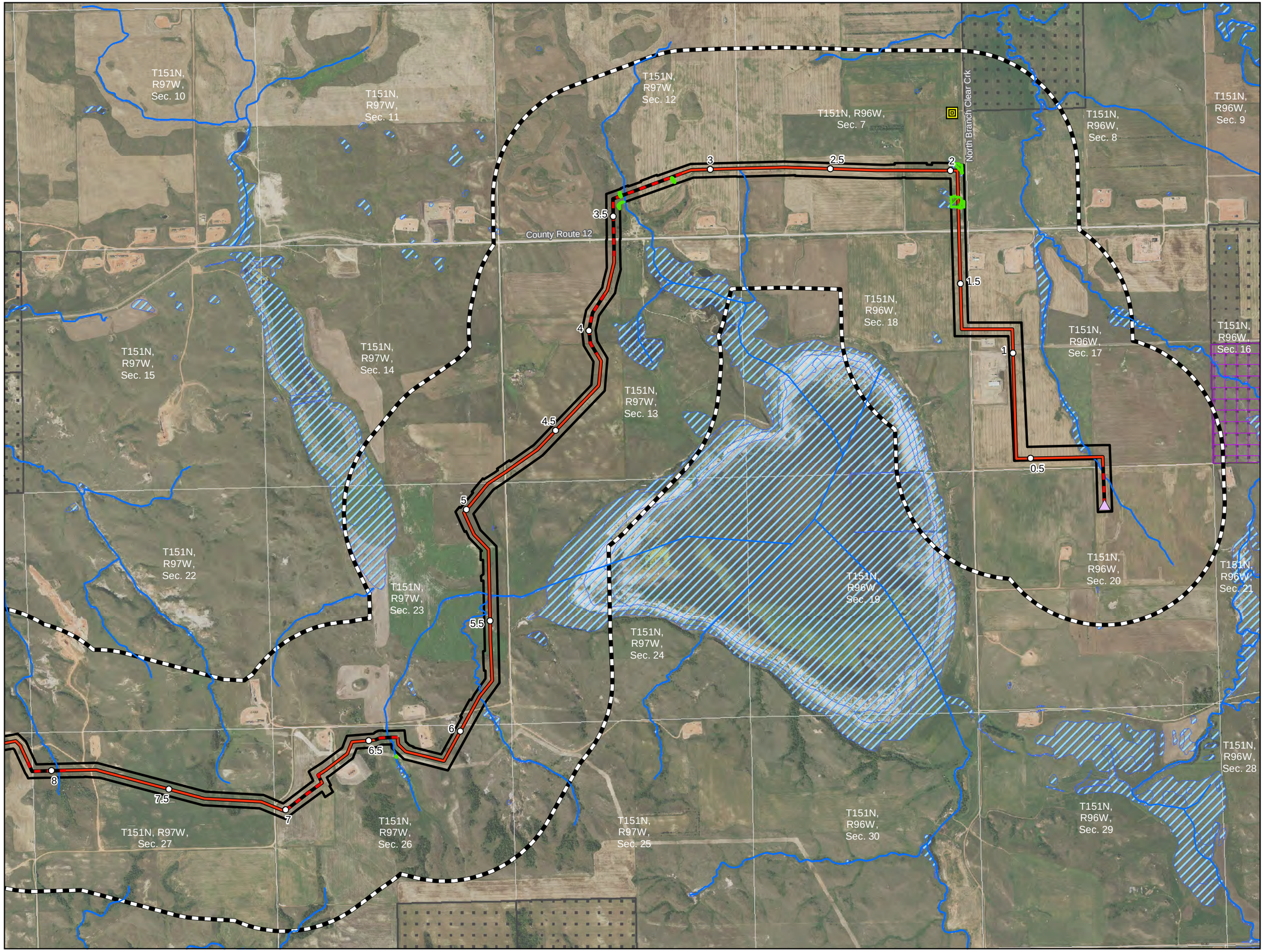
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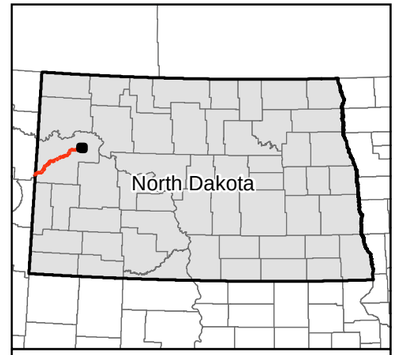
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Date: (11/8/2018)

B.4. Selection Criteria (Other) Maps





0 1,000 2,000 Feet

1 inch = 2,000 feet

Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N
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- Milepost
- Mainline Valve
- Launcher/Receiver
- Centerline: Co-located
- Centerline: Not Co-located
- Project Corridor
- 1-mile Study
- Field Surveys Not Complete
- Section Boundary
- Antenna Structure
- Microwave Station
- NDDTL - School Trust Land
- NDDTL - Mineral Trust Land
- NHD Flowline
- Field Delineated Waterbody
- Field Delineated Wetland
- NWI Wetland
- Wellhead Community Protection Area
- Wellhead Non-Community Protection Area

Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 1 of 14

McKenzie County, ND

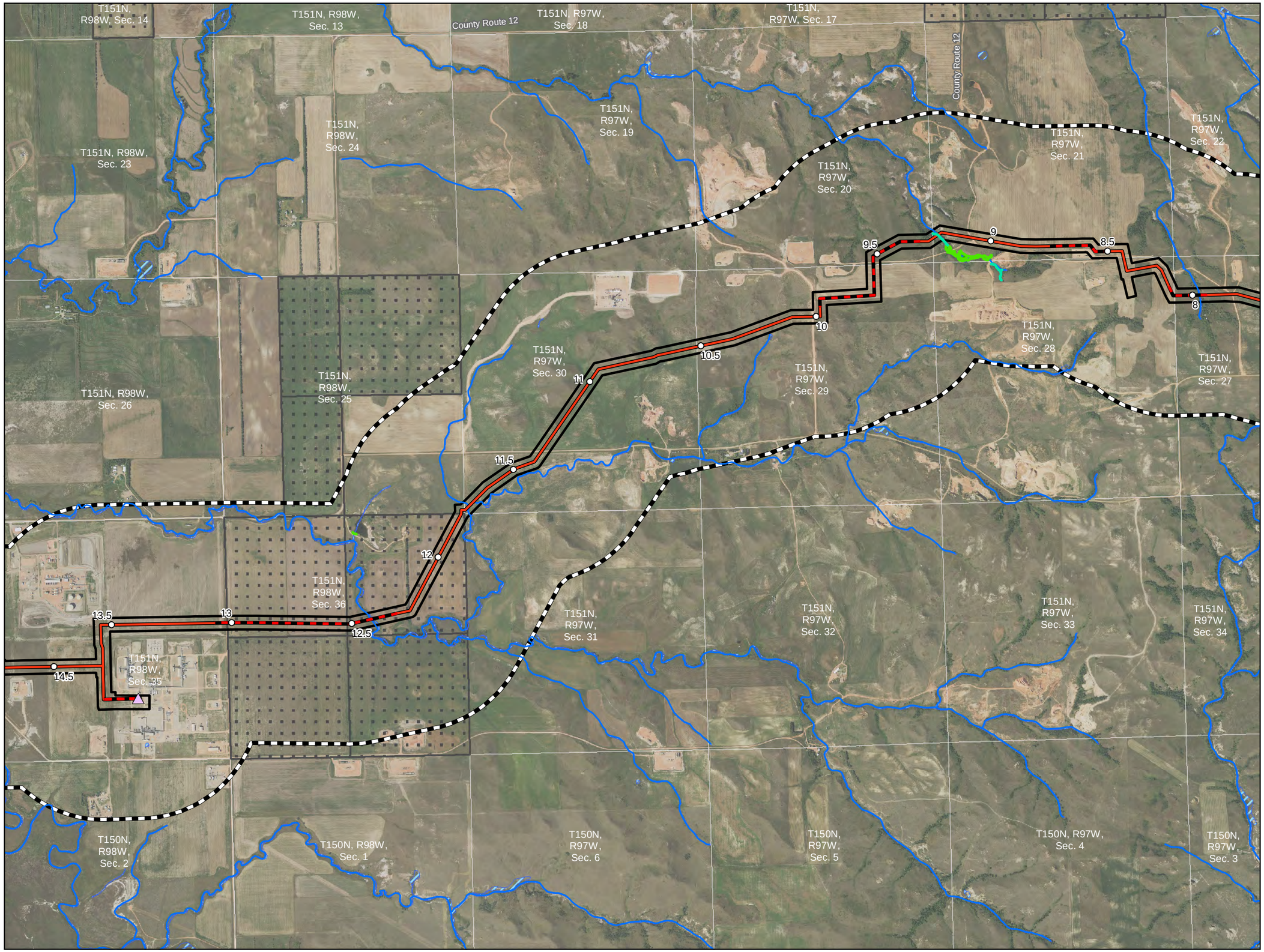
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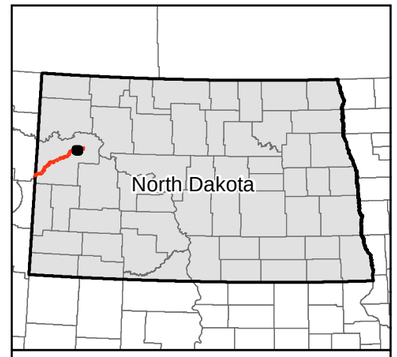
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Date: (11/8/2018)





0 1,000 2,000 Feet

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Imagery Source: USDA-FSA-APFO Aerial Photography Field Office

N W E S

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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

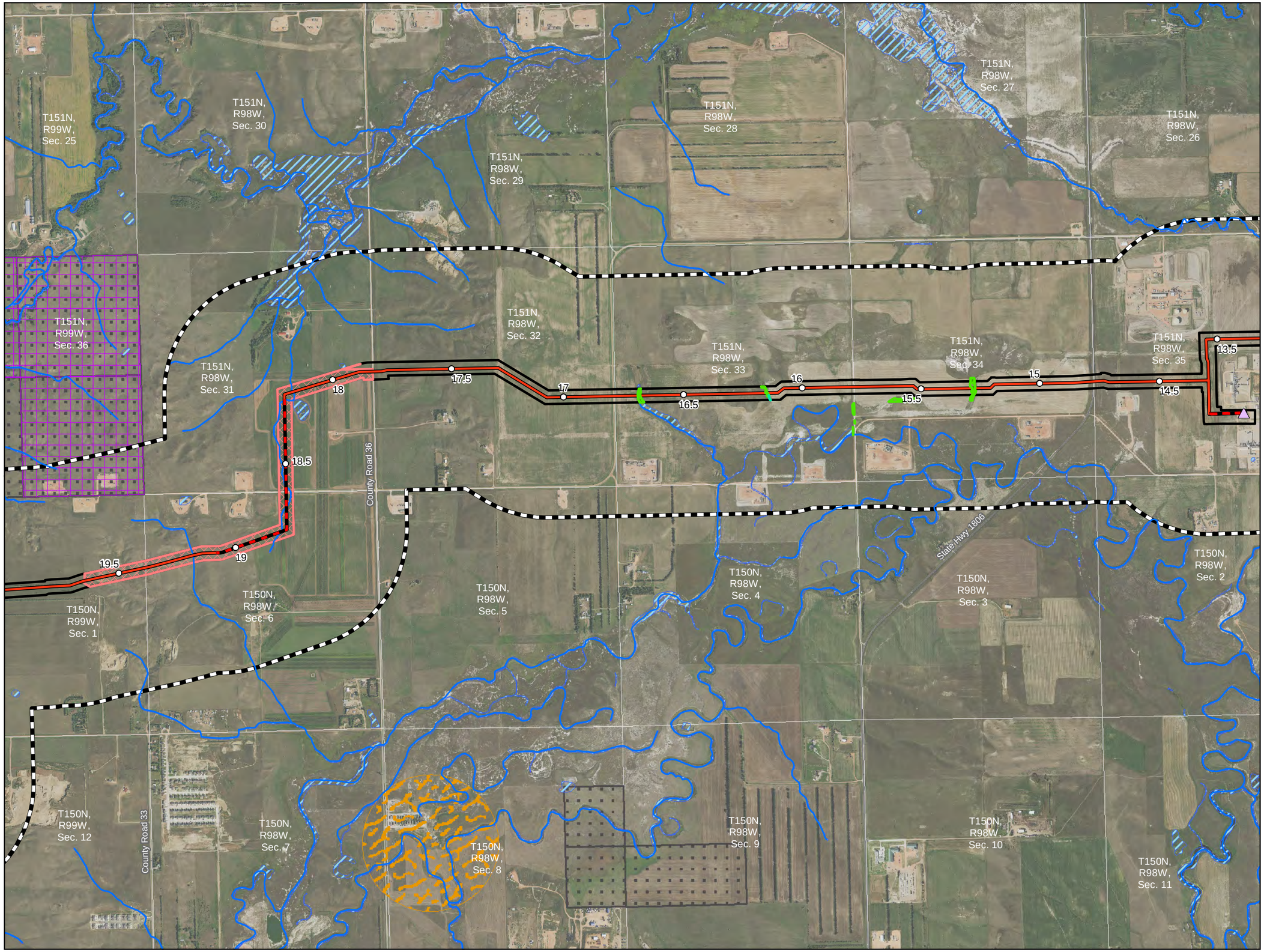
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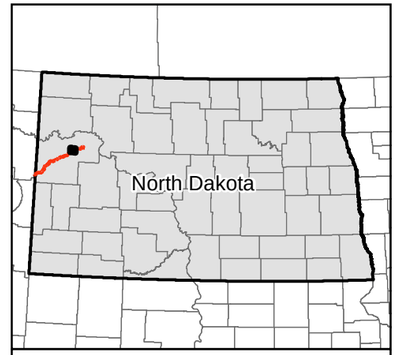
McKenzie County, ND

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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

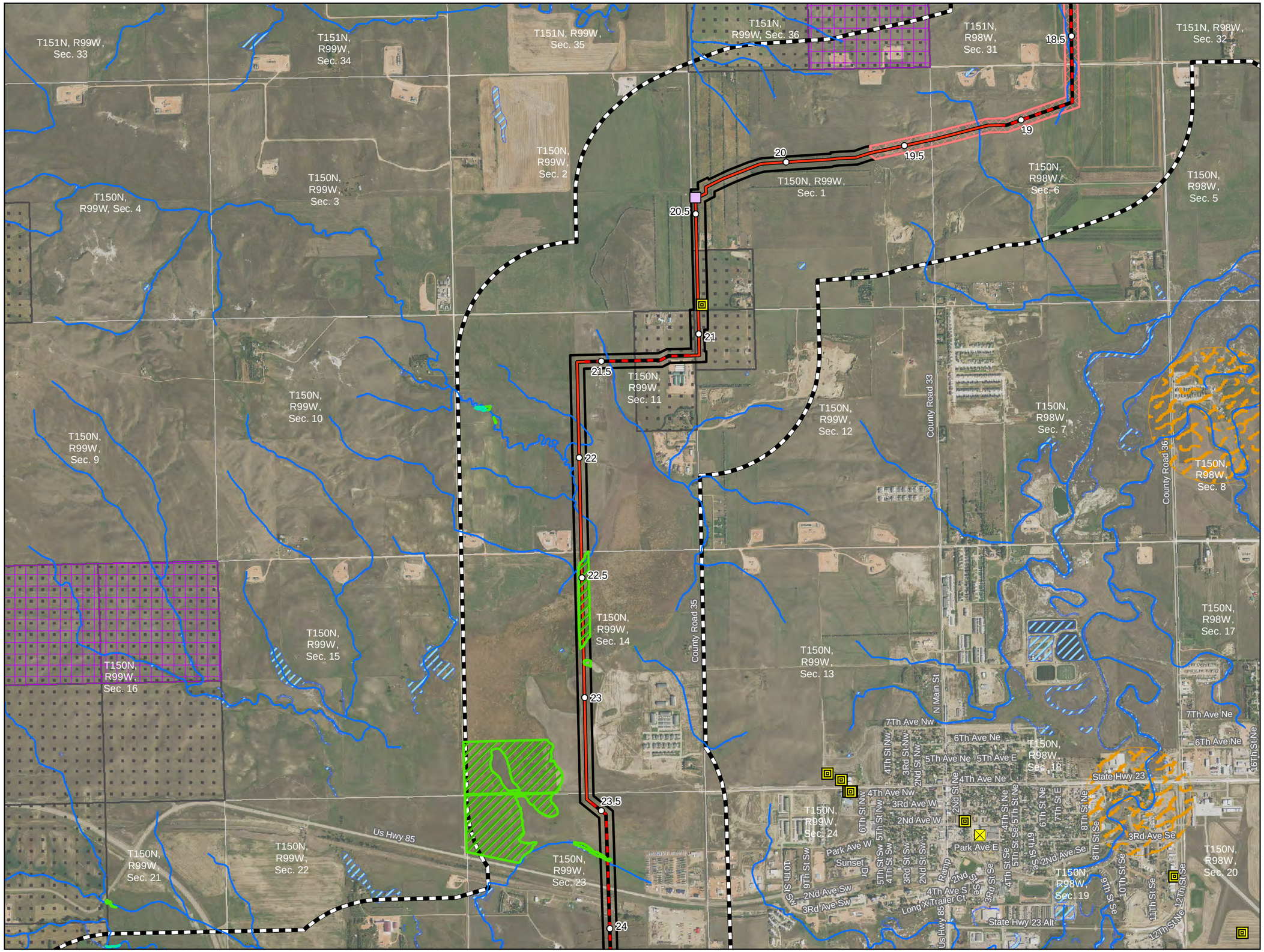
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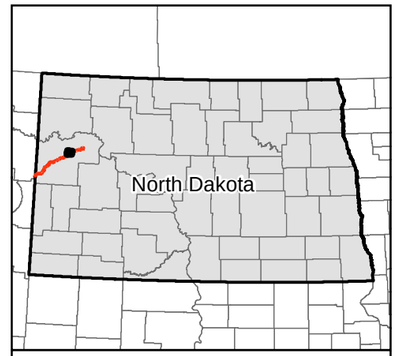
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

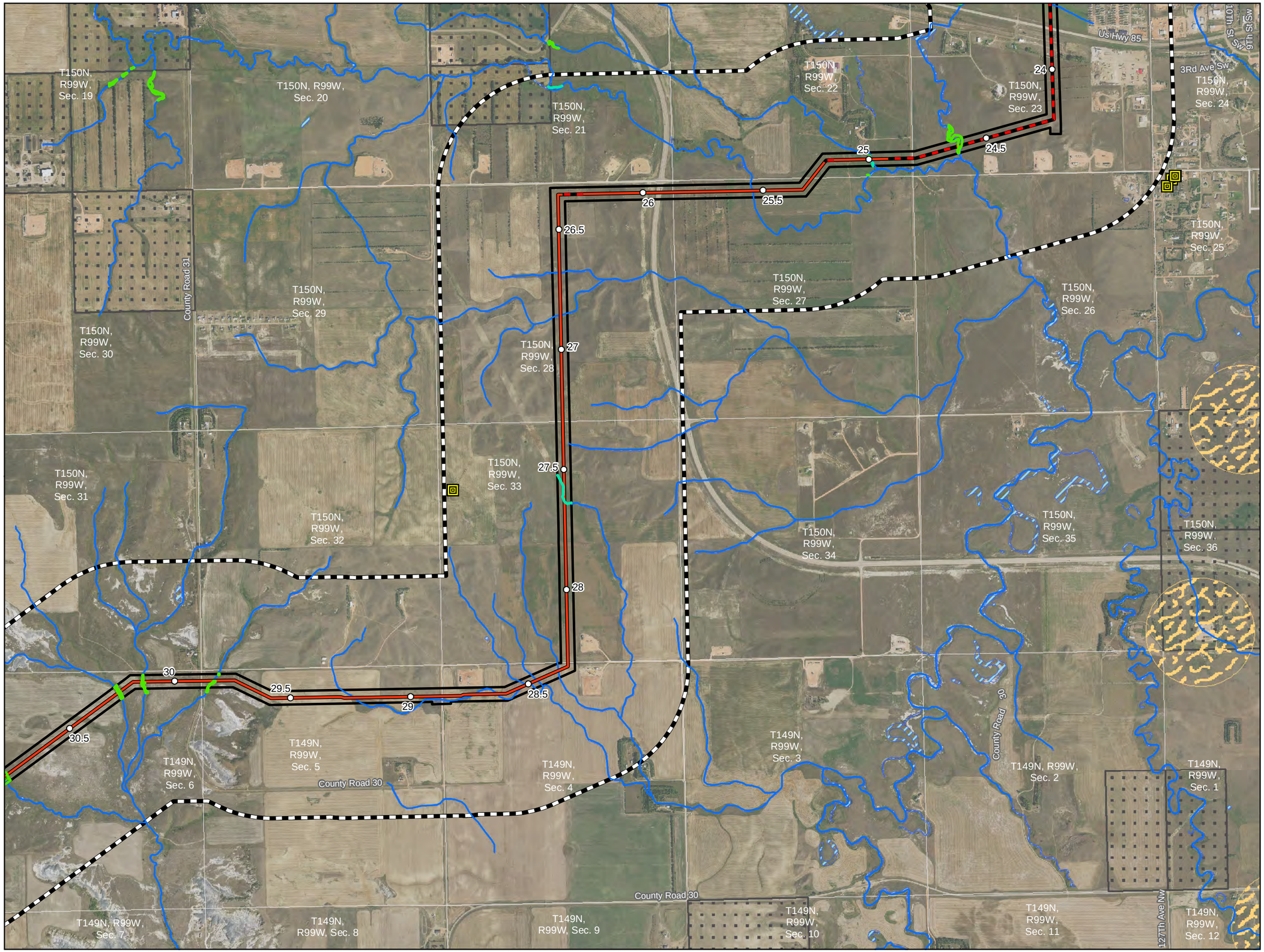
McKenzie County, ND

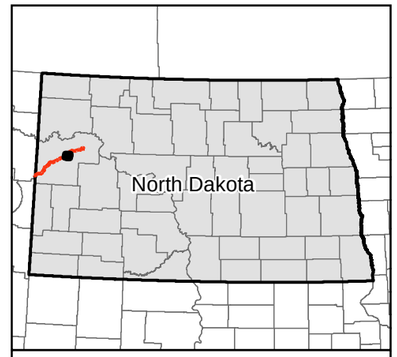
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 5 of 14

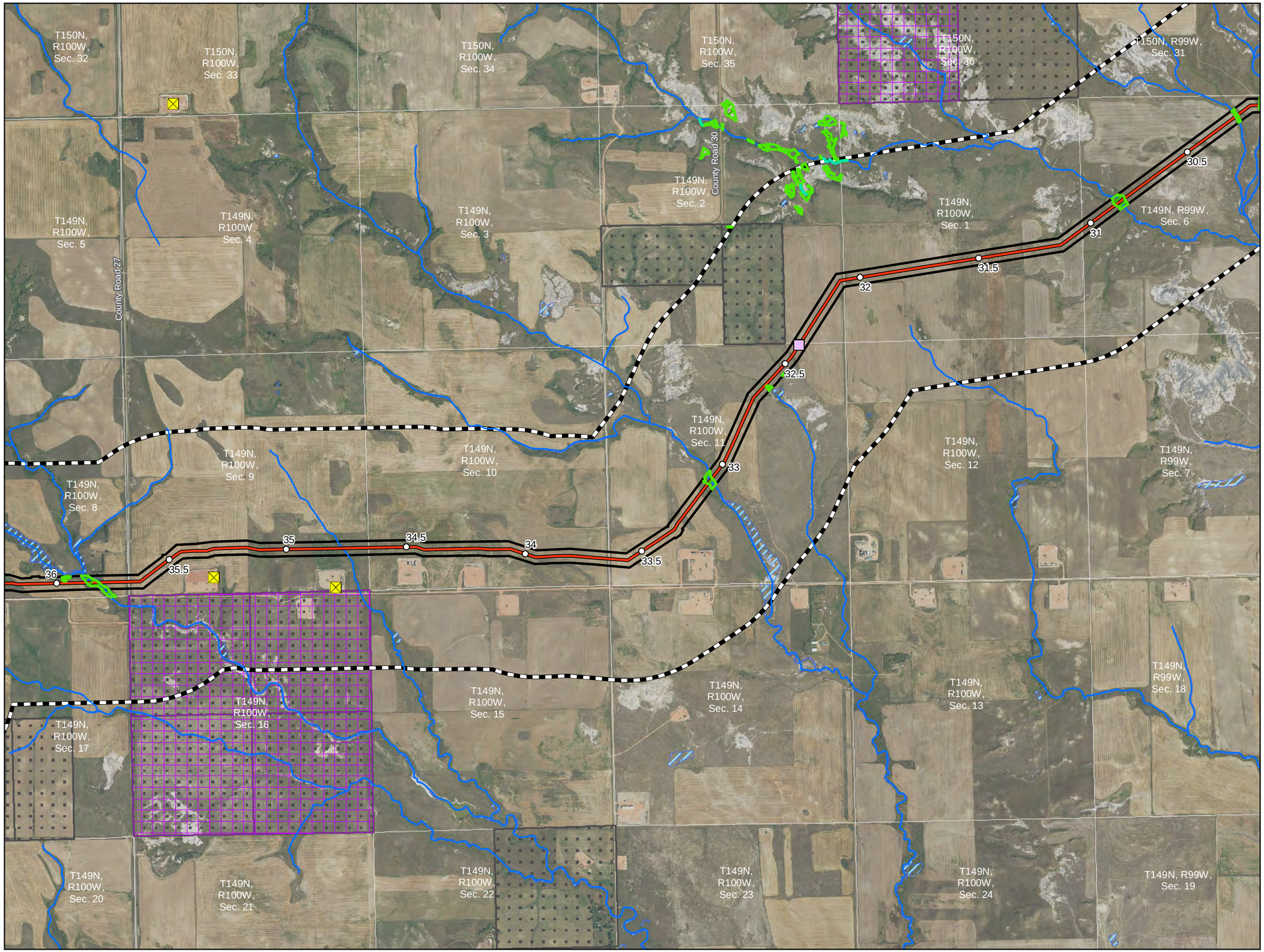
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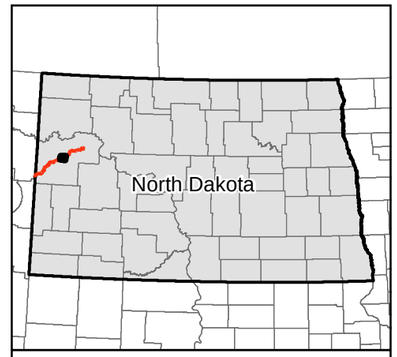
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 6 of 14

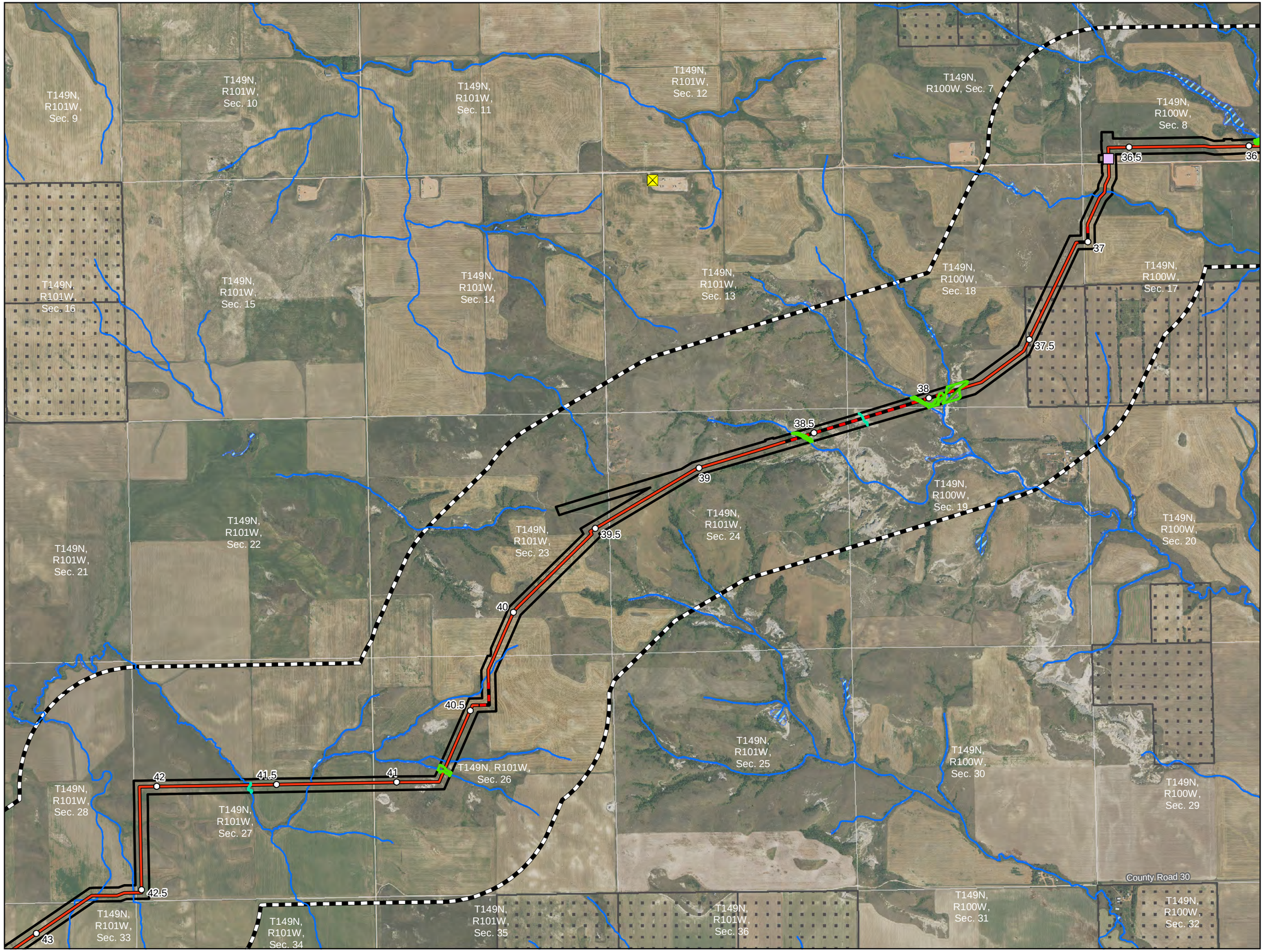
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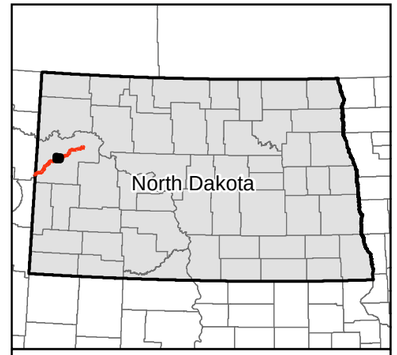
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- Milepost
- Mainline Valve
- Launcher/Receiver
- Centerline: Co-located
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- Project Corridor
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- NWI Wetland
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 7 of 14

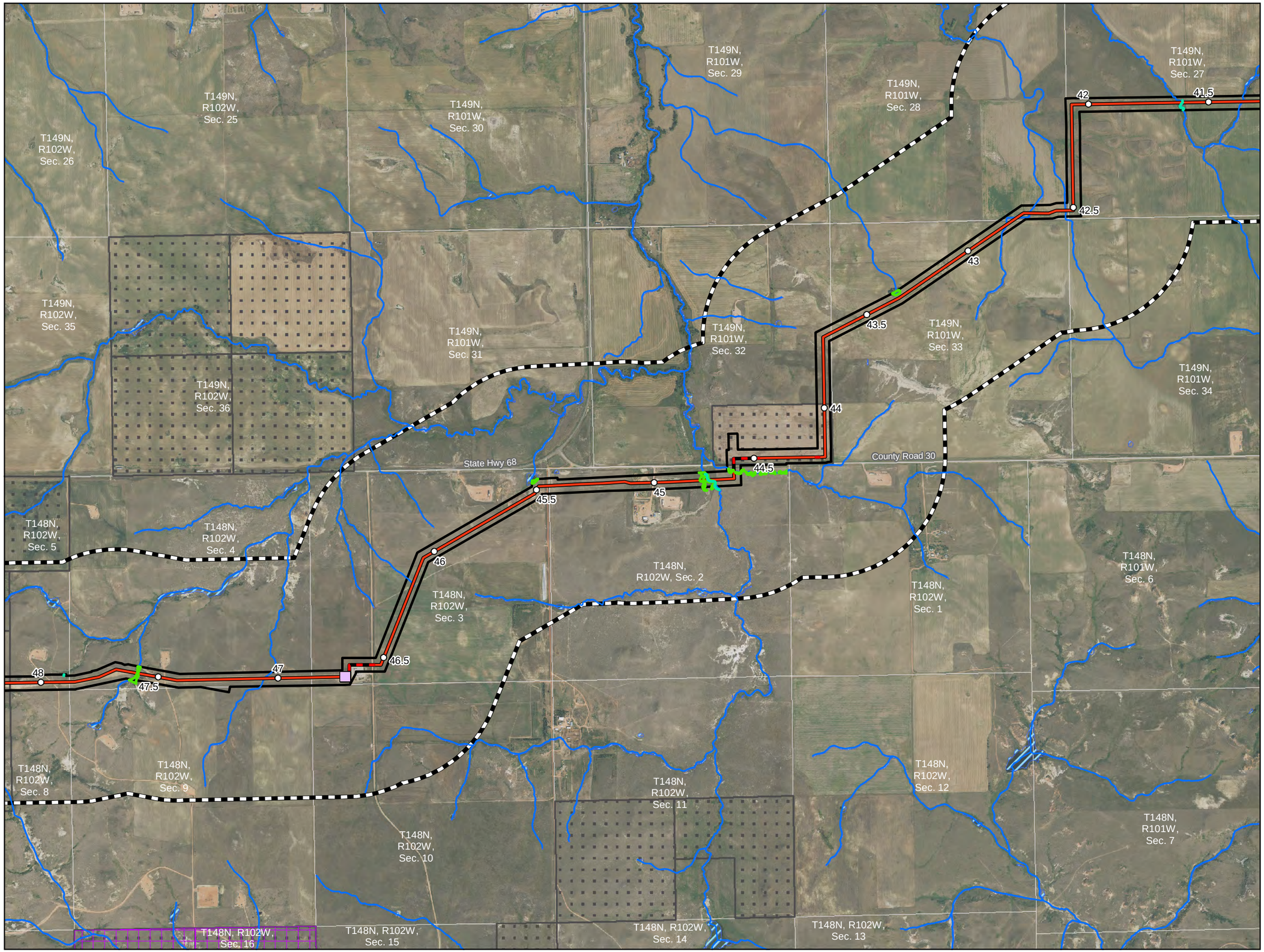
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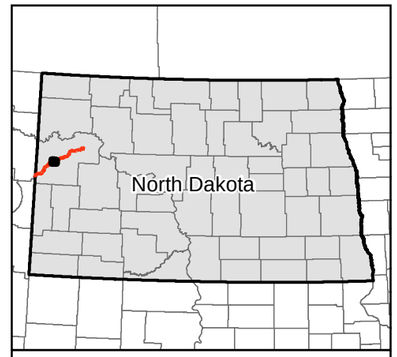
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Demicks Lake Pipeline Project

Selection Criteria Maps

Page 8 of 14

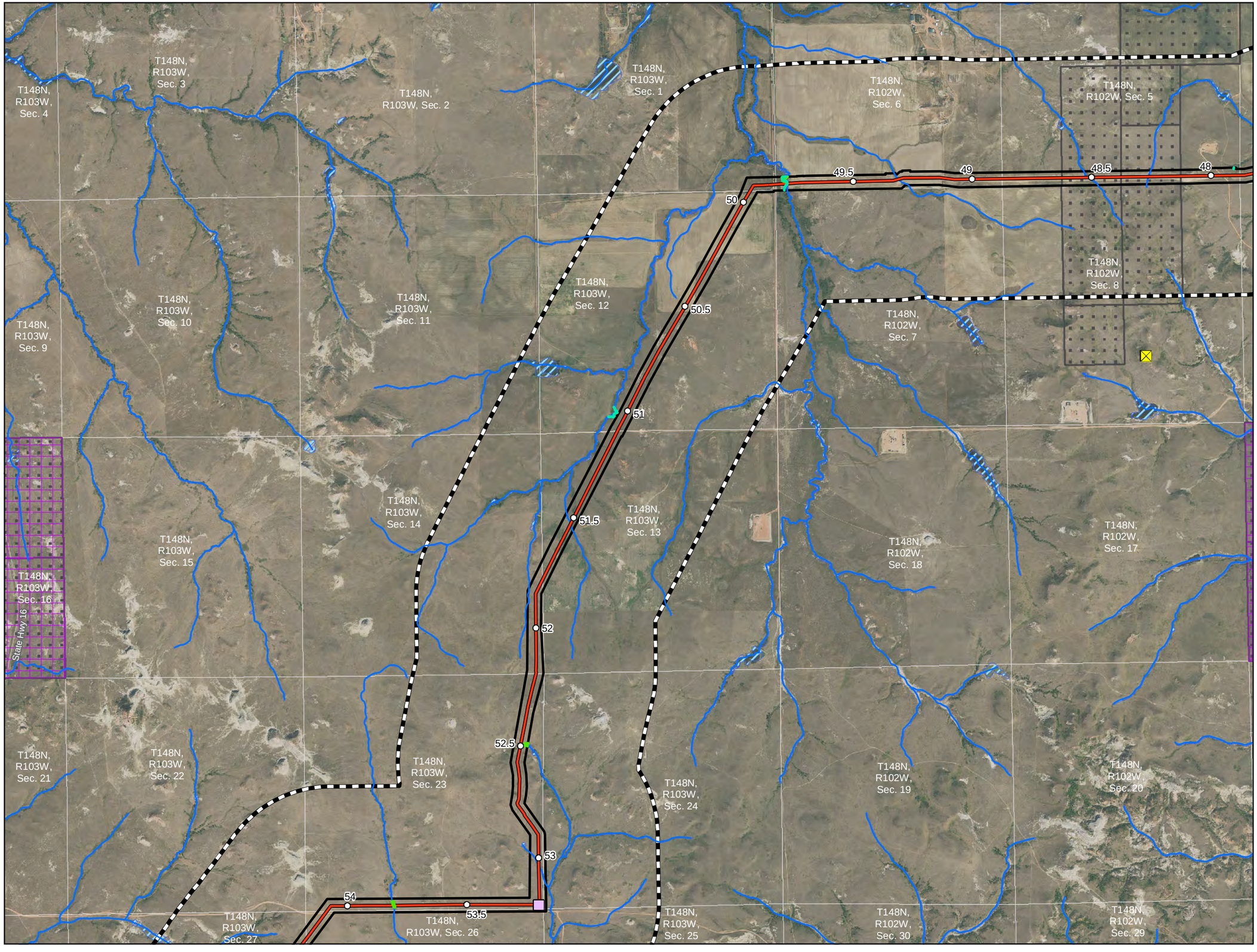
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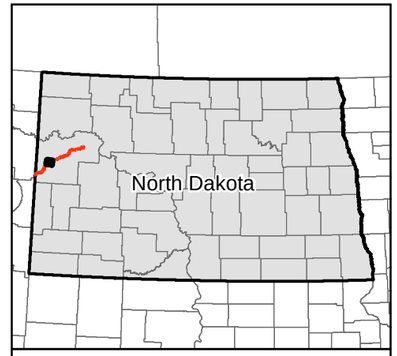
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 9 of 14

McKenzie County, ND

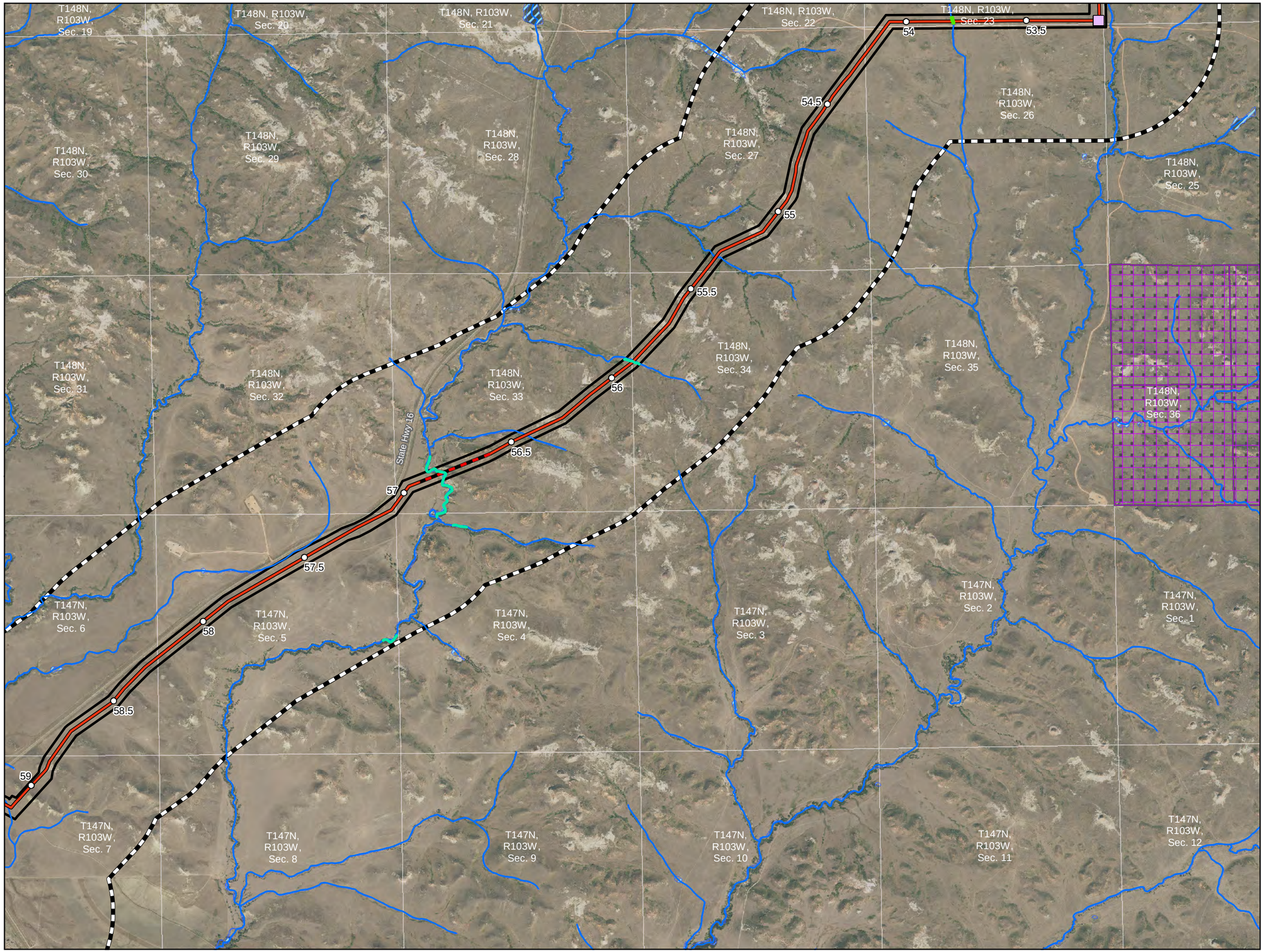
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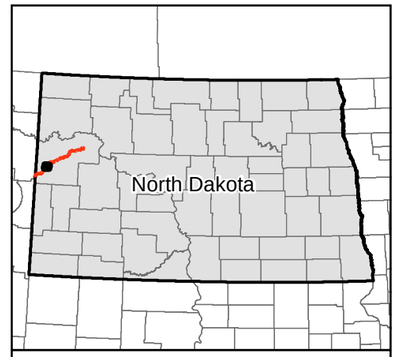
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 10 of 14

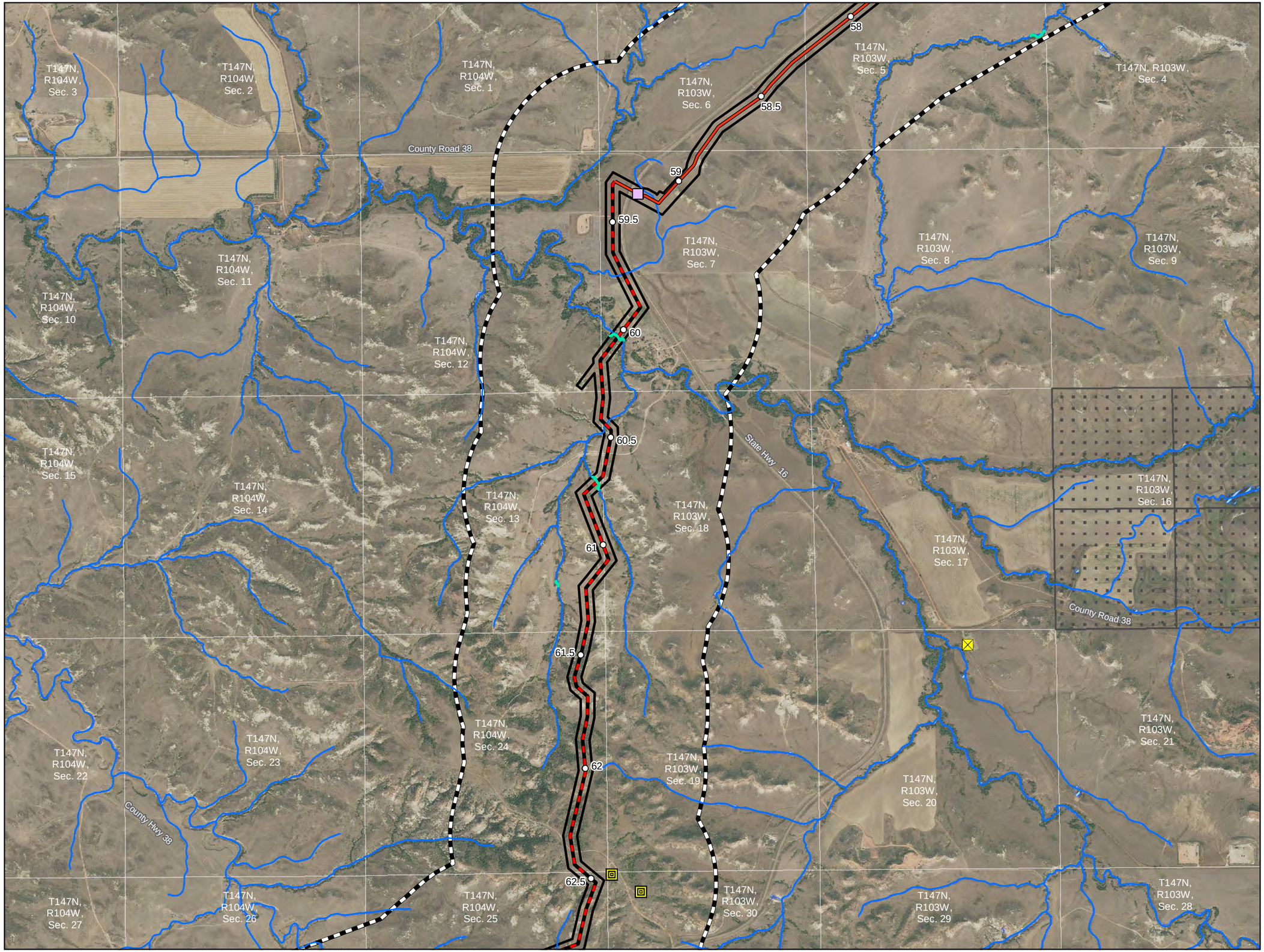
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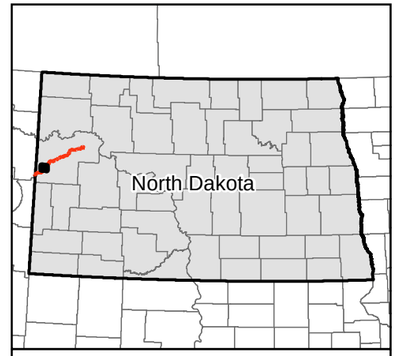
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 11 of 14

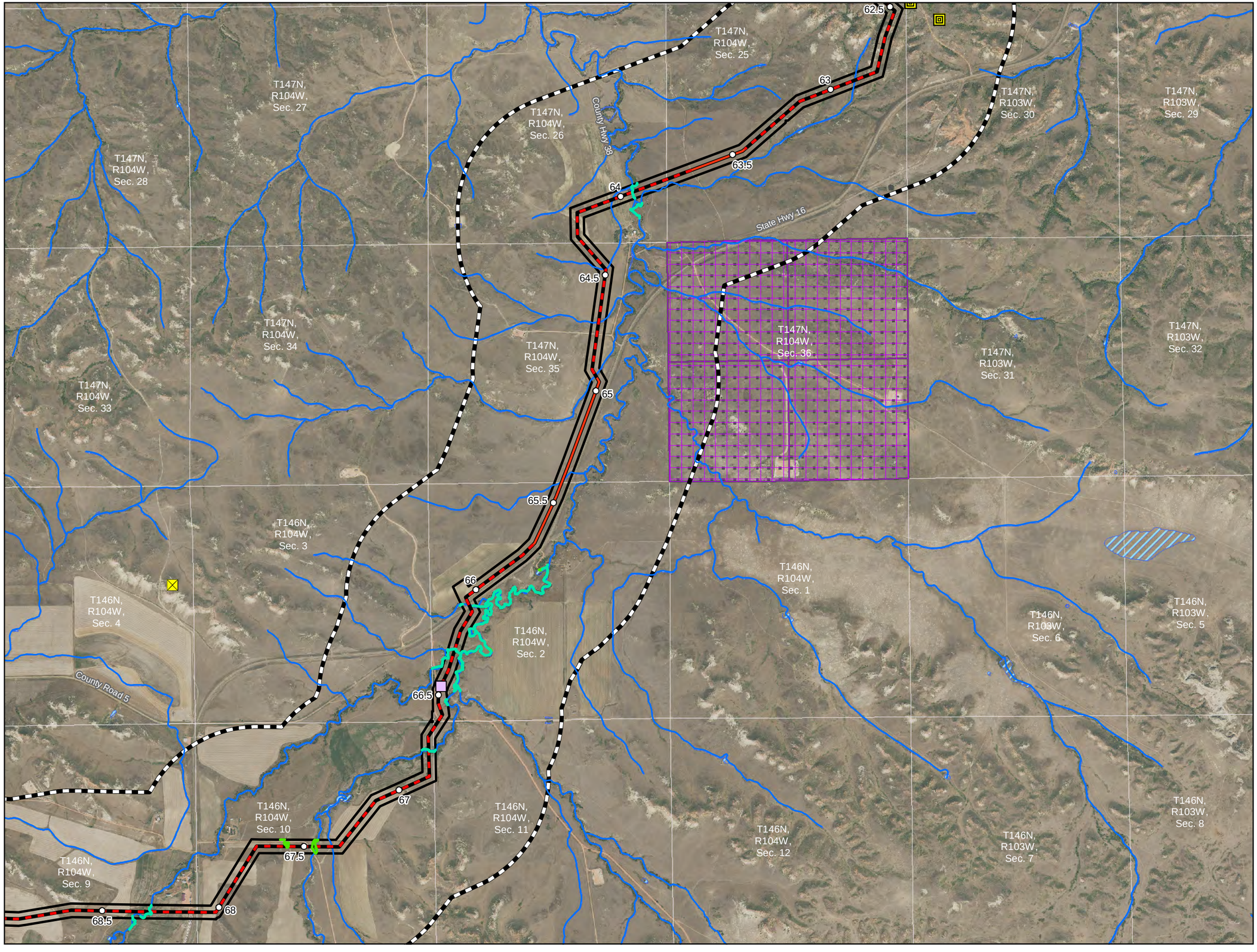
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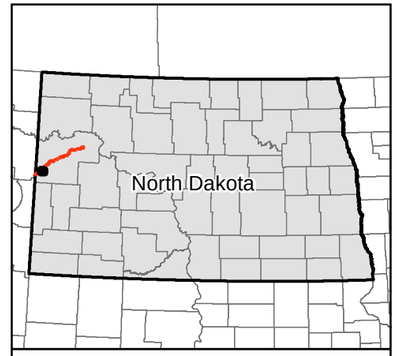
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- NWI Wetland
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- Wellhead Non-Community Protection Area

Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 12 of 14

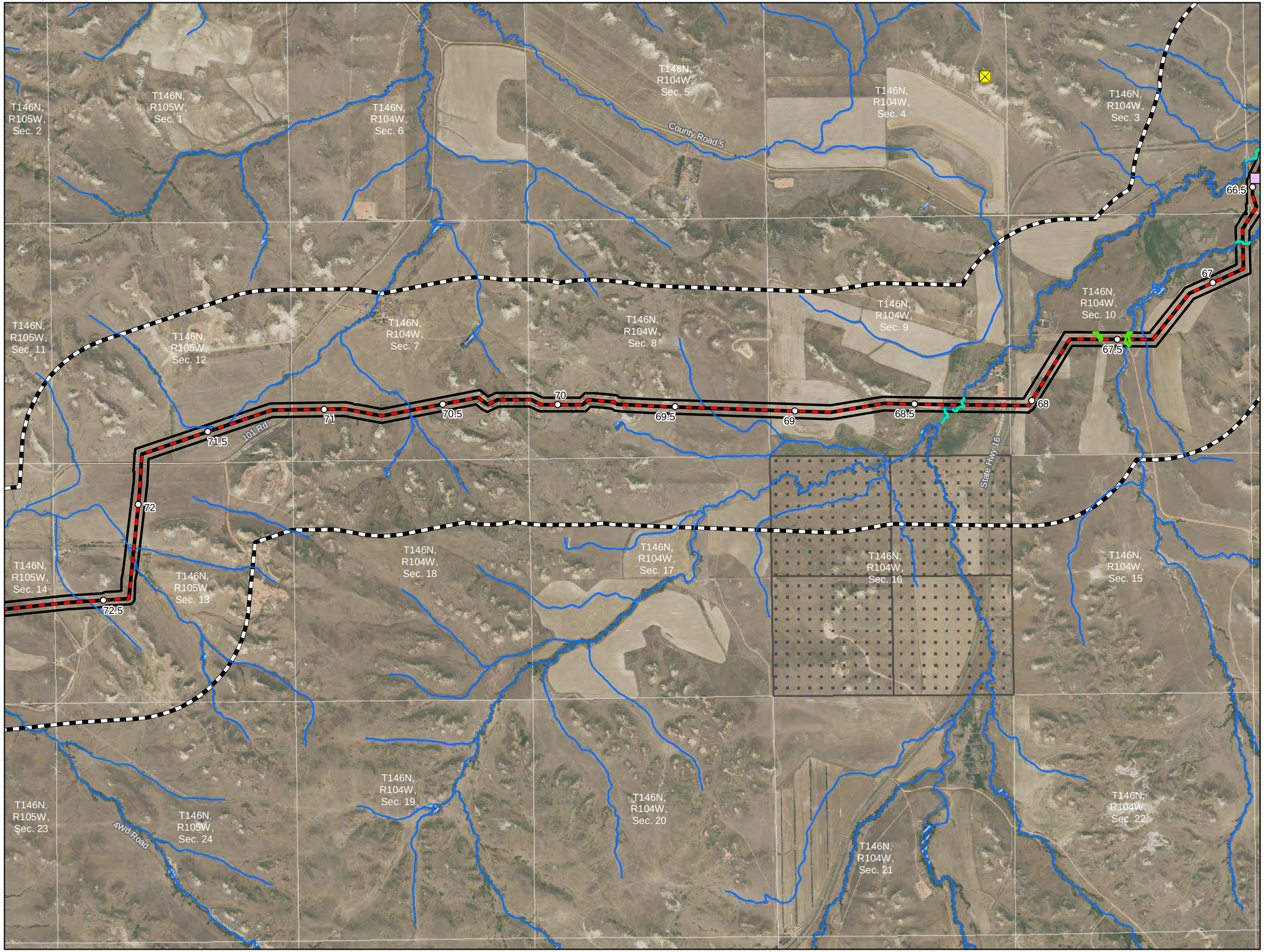
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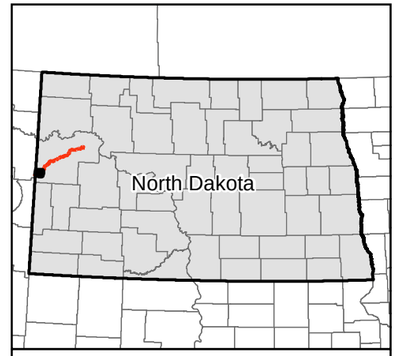
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 13 of 14

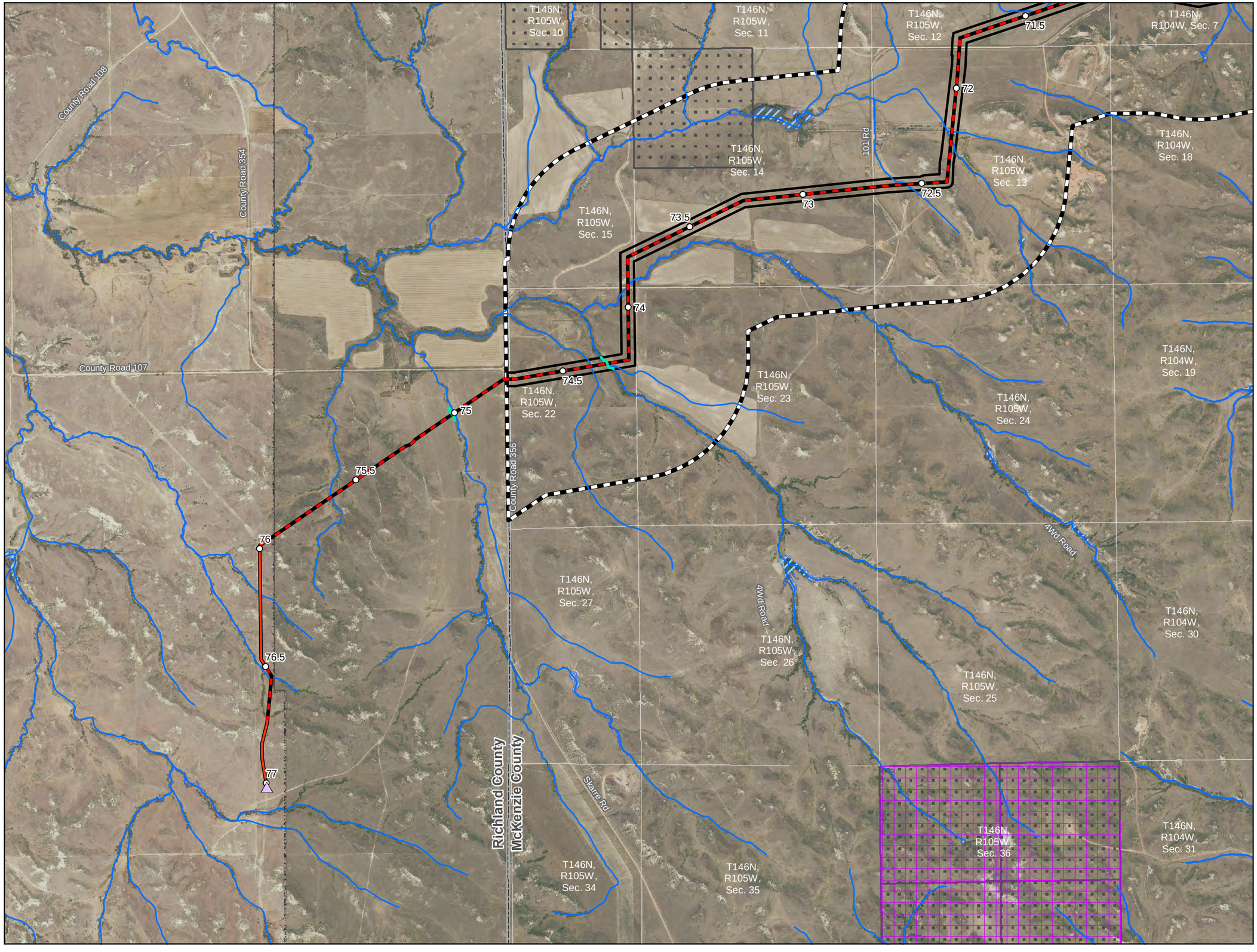
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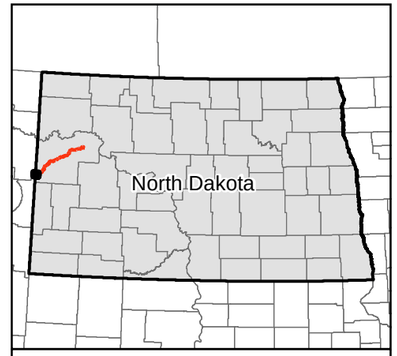
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Exhibit B.4
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project

Selection Criteria Maps

Page 14 of 14

McKenzie County, ND and Richland County, MT

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Date: (11/8/2018)

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11/8/2018

B.5 Black and White Map for Publications

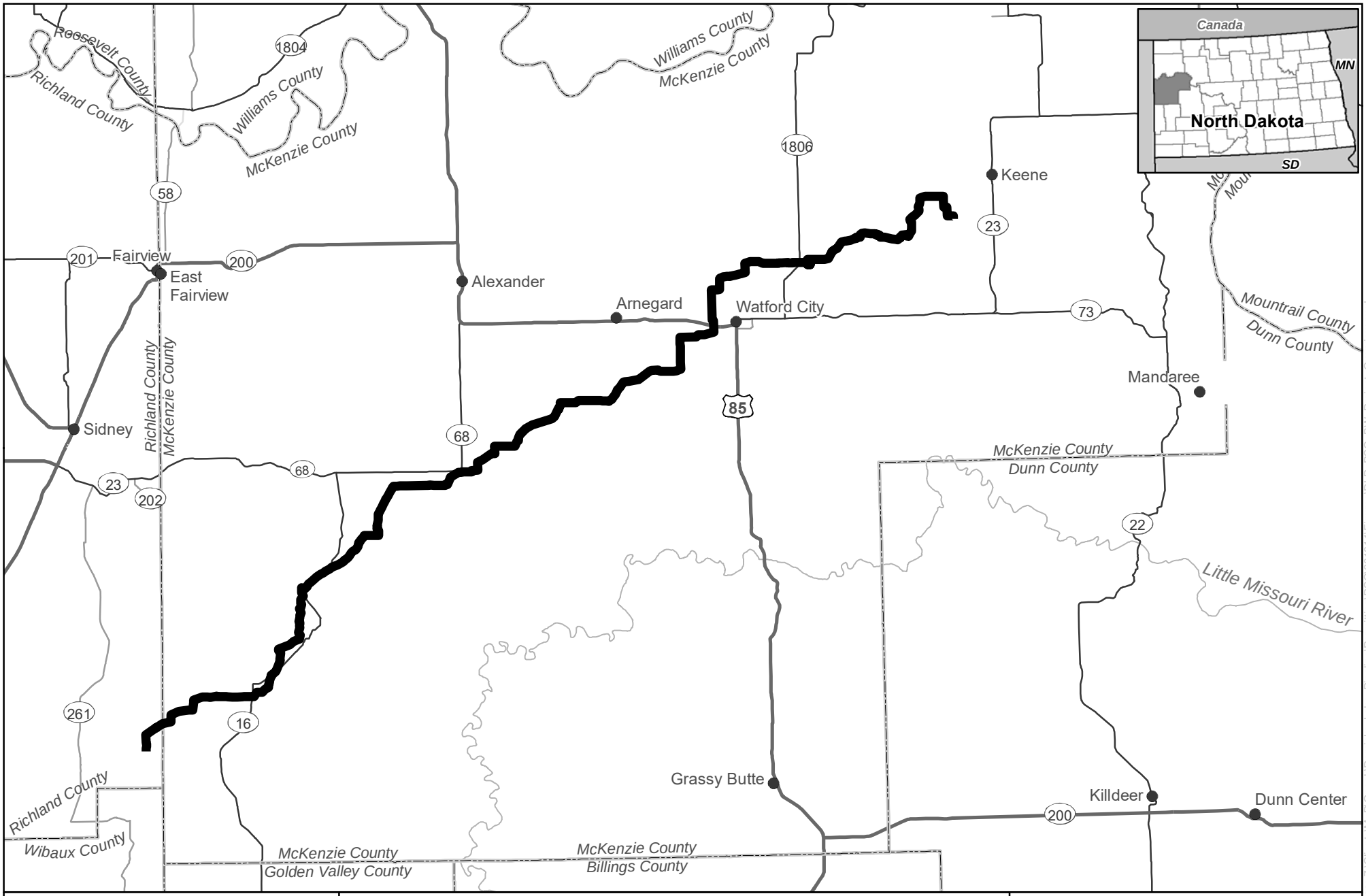

Roosevelt County
Richland County
Williams County
McKenzie County
1804
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Canada
MN
North Dakota
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58
Keene
23
201
Fairview
200
East Fairview
Alexander
Arnegard
Watford City
73
Mountrail County
Dunn County
Mandaree
Richland County
McKenzie County
85
Sidney
68
McKenzie County
Dunn County
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Little Missouri River
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Grassy Butte
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Exhibit B.5
ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Pipeline Project
Project Location Map
Preferred Route
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Exhibit C

Natural Resources Survey Report



NATURAL RESOURCES SURVEY REPORT - 2018

DEMICKS LAKE PIPELINE PROJECT - NORTH DAKOTA

ONEOK BAKKEN PIPELINE, LLC

Midwest Natural Resources, Inc.
1032 West 7th St., Suite 150
St. Paul, MN 55102

MNR
MIDWEST NATURAL RESOURCES

Table of Contents

Project Overview 1
Survey Limits and Existing Data 1
Methods 2
Wetlands and Waterbodies 2
Noxious Weeds 2
Habitat Assessments 2
Dakota Skipper Habitat Mapping 2
Results and Discussion 3
Wetlands and Waterbodies 3
Noxious Weeds 3
Habitat Assessments 3
Dakota Skipper Habitat Mapping 4
References 5

List of Tables

Table 1. Summary of NWI Features within the survey corridor 1
Table 2. Summary of wetland features 3
Table 3. Summary of waterbody features 3
Table 4. Habitat suitability within the project area 4

List of Appendices

Appendix A - Soil Map Units within Project Area
Appendix B - Natural Resource Field Survey Protocols
Appendix C - Table of Delineated Wetland Features
Appendix D - Wetland Determination Forms
Appendix E - Wetland Photographs
Appendix F - Table of Delineated Waterbody Features
Appendix G - Waterbody Forms
Appendix H - Waterbody Photographs
Appendix I - Table of Dakota Skipper Habitat Data
Appendix J - Dakota Skipper Habitat Photographs

Appendices D, E, G, and H are available upon request

Appendices I and J redacted from NDPSC submittal due to concerns from USFWS re: releasing Dakota Skipper habitat information to public

Project Overview

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline. Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

Midwest Natural Resources, Inc. (MNR) was contracted by Merjent to conduct natural resources surveys associated with the portion of the Demicks Lake Pipeline Project located in North Dakota. This effort involved routine wetland and waterbody surveys, noxious weed surveys, and a general habitat assessment for state- and federally-listed species. Survey efforts also included mapping potential habitat for the Dakota Skipper (*Hesperia dacotae*) along the proposed project route.

Survey Limits and Existing Data

MNR conducted natural resources surveys between June 5 and October 6, 2018. Surveys generally occurred within a corridor averaging approximately 300 feet in width and included several reroutes and corridor extensions/modifications. The data provided in this report includes all features collected over the survey period and within every revision of the corridor. The mapbooks that accompany this report illustrate all areas that were surveyed as well as all data that was collected during survey efforts. Any subsequent revisions to the route will be surveyed (as needed) and submitted as addenda to this report.

MNR staff evaluated existing data, prior to and during field efforts, including resources such as the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), and the Soil Survey Geographic Database (SSURGO) within the survey area. This background data is provided in the mapbook, **DLP_ND_Existing_Data_Mapbook**.

Existing data from the NWI showed a total of 122 wetland features within the survey area (**Table 1**), and 85 of these are classified as riverine systems.

Table 1. Summary of NWI Features within the survey corridor

Wetland Type	Cowardin	Count	Total area (acres)
Freshwater Emergent Wetland	PEM	26	6.47
Freshwater Forested/Shrub Wetland	PFO/PSS	6	1.58
Freshwater Pond	PUB/PAB/PUS	5	1.76
Riverine	R2UB/R4SB/R5UB	85	35.86
	Total	**122**	**45.67**

There are 169 waterbody features (including 157 stream features and 12 waterbodies) intersecting the survey area according to the NHD. All of these waterbody features are also represented in the NWI dataset.

A total of 85 soil types are mapped across the survey area. Mapped soils are primarily well drained loams, and only five soil types are classified as hydric. Hydric soil types are generally alluvial deposits in low-lying drainageways or basins. All soil types are depicted in the existing data mapbook and are listed in **Appendix A**.

Methods

Wetlands and Waterbodies

Wetland and waterbody surveys were conducted via pedestrian surveys along the entire survey corridor. Potential wetland areas were evaluated utilizing the Routine "Onsite" Determination Method contained in the Regional Supplement to the Corps of Engineers USACE Wetland Delineation Manual: Great Plains Region for the 1987 Wetlands Delineation Manual Technical Report Y-87-1.

Potential waterbody boundaries were identified by the presence of a defined bed and bank and evidence of flow following the USACE Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification (2005) and Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979). All features were classified to Cowardin Class. Ephemeral waterbodies (classified as R6) were defined as features having flow for brief periods following rainfall or snowmelt.

Additionally, non-water data points were collected to document NWI/NHD features which were lacking wetland/waterbody characteristics at the time of field surveys. Wetland determination forms were collected to document non-wetland NWI features.

All documented features were recorded spatially with sub-meter GPS units (Trimble GeoXT 6000) and were further documented with representative photographs. Specific survey methods and data collection procedures are provided in the Demicks Lake Pipeline Project Natural Resource Field Survey Protocols in **Appendix B.**

Noxious Weeds

Noxious weed surveys targeted the 11 species identified by the North Dakota Department of Agriculture as well as five additional species listed in McKenzie County (see **Table 4.4-1** in **Appendix B**). All occurrences of target noxious weed species were mapped with a GPS unit and further documented with a representative photograph. Isolated occurrences were mapped as a single point location, whereas larger populations were mapped using a series of points indicating the general extent of the infestation.

Habitat Assessments

Surveys included a general habitat assessment for federally-listed threatened and endangered species listed in **Table 4.3-1** (**Appendix B**). Surveys specific to the Dakota Skipper were considered a separate survey effort and are described in the section below. Field efforts included line-of-sight eagle nest surveys within 660 feet of the survey corridor. Additionally, field crews visited three golden eagle (*Aquila chrysaetos*) nest locations in the project vicinity. These nests, previously documented by the US Forest Service, were visited to confirm their presence and determine, if applicable, their condition and activity.

Dakota Skipper Habitat Mapping

Type B Habitat, as defined by the US Fish and Wildlife Service (Dakota Skipper Occupancy Survey Protocol for North Dakota document), was identified and delineated in the field. Surveys were conducted within the proposed corridor as well as an expanded 500-meter corridor on US Forest Service land. A data point was collected for each of the mapped areas along with representative photos. The information collected in the data point included estimated cover of native graminoids, native forbs, non-native species (both graminoids and forbs), and trees and shrubs, as well as the presence/absence of requisite prairie species. Cover was categorized based on the Braun-Blanquet cover scale.

Results and Discussion

Wetlands and Waterbodies

Surveys resulted in the delineation of 87 wetlands within the entire survey area; 81 of these features include seasonally saturated or temporarily flooded PEM communities. One PSS, five PFO, and four PUB communities were documented during field efforts. Four wetland features are complexes comprising multiple Cowardin community types. Total wetland acreage by Cowardin class is summarized in **Table 2**. Delineated wetland features are summarized in **Appendix C**, and wetland determination forms are provided in **Appendix D** with representative photographs included in **Appendix E**. All delineated wetland features are depicted in the delineated features mapbook, **DLP_ND_Delineated_Features_Mapbook**.

A total of 36 waterbodies were documented within the survey area; 28 of these are ephemeral features, and the remaining 8 are intermittent (**Table 3**). Waterbody features are summarized in **Appendix F**, and data forms are provided in **Appendix G** with representative photographs included in **Appendix H**. All delineated waterbody features are depicted in the mapbook, **DLP_ND_Delineated_Features_Mapbook**.

Table 2. Summary of wetland features

Wetland Community Type	Cowardin	Acres in Survey Corridor
Freshwater Emergent	PEM	136.38
Freshwater Shrub-Carr	PSS	0.02
Freshwater Forested/Shrub Wetland	PFO	0.66
Freshwater Pond	PUB	0.88
	Total	**137.94**

Table 3. Summary of waterbody features

Waterbody Regime	Cowardin	Count
Ephemeral	R6	28
Intermittent	R4SB	8
	Total	**36**

Noxious Weeds

Surveys resulted in the documentation of 165 noxious weed occurrences throughout the project area. Only two of the target species, Canada thistle (*Cirsium arvense*) and common burdock (*Arctium minus*), were observed. Canada thistle was the most common noxious weed species, accounting for 160 of the observations. Noxious weed locations are depicted in the delineated features mapbook, **DLP_ND_Delineated_Features_Mapbook**. Representative photographs of each occurrence will be provided upon request.

Habitat Assessments

The general project area is located in open, hilly terrain with badlands occurring periodically throughout. Land use is primarily agricultural, including rangeland, pasture, and row crop, with grazed rangeland accounting for a majority of the area.

Potential suitable habitat for federally-listed species is present within the survey area (**Table 4**), most notably for northern long-eared bat (*Myotis septentrionalis*) and piping plover (*Charadrius melodus*). Potential roosting and foraging habitat for northern long-eared bat was identified at various locations throughout the survey corridor. This includes wooded areas surrounding streams as well as planted

fencerows and isolated trees. Potential suitable nesting habitat for piping plover may be present in alkaline wetlands with salt-encrusted shores. Four wetlands (w-18042d-050, w-18042d-056, w-18042d-057, w-18042e-009) and two waterbodies (s-18042d-021 and s-18042d-027) were identified as potential alkaline features which could provide suitable nesting habitat for piping plover. If more detailed follow-up surveys for the listed species are needed, these will be conducted at a later date.

Table 4. Habitat suitability within the project area

Species	Scientific Name	Presence of Habitat in the Project Area
Gray wolf	*Canis lupus*	Suitable dispersal habitat present
Northern long-eared bat	*Myotis septentrionalis*	Suitable roosting and foraging habitat potentially present
Interior least tern	*Sterna antillarum*	Suitable habitat not present
Piping plover	*Charadrius melodus*	Suitable nesting habitat potentially present in 4 wetlands, 2 waterbodies
Red knot	*Calidris canutus*	Suitable migratory stopover habitat present
Whooping crane	*Grus americana*	Suitable migratory stopover habitat present
Pallid sturgeon	*Scaphirhynchus albus*	Suitable habitat not present

The three golden eagle nest locations were visited on July 30, 2018. Only one, z-18042d-006, was successfully relocated and found to be in good condition. The general location of the nest is depicted on page 23 of the delineated features mapbook. No eagles were observed near any of the nest locations at the time of survey.

Dakota Skipper Habitat Mapping

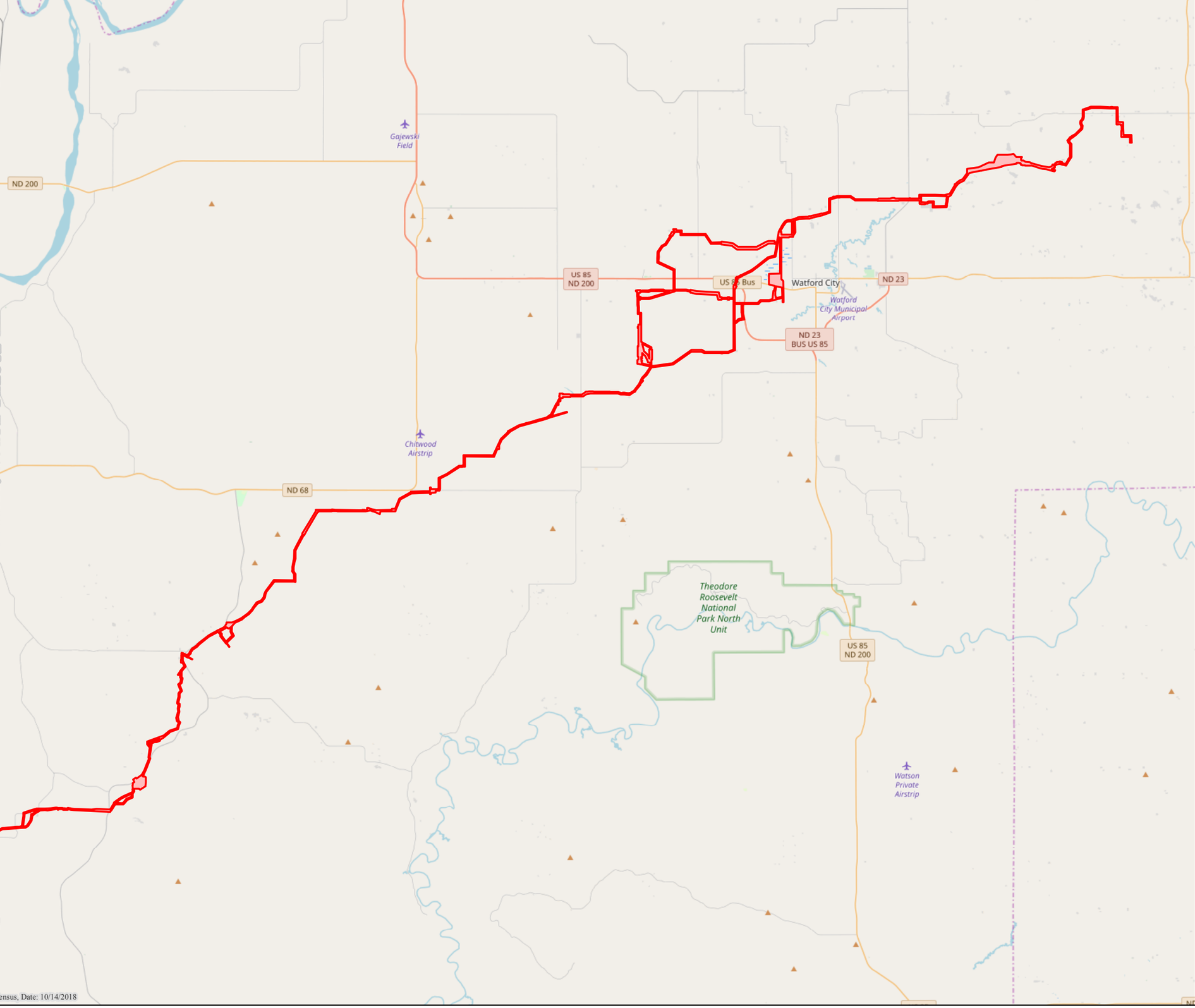
Habitat mapping efforts resulted in the delineation of 448 Type B habitat features totaling 381.1 acres. Individual habitat polygons ranged between 0.003 and 26.6 acres in size. These areas are generally vegetated with little bluestem (*Schizachyrium scoparium*) with purple coneflower (*Echineacea angustifolia*), needle-and-thread grass (*Hesperostipa comata*), sideoats grama (*Bouteloua curtipendula*), prairie coneflower (*Ratibida columnifera*), prairie sagewort (*Artemisia frigida*), toothed evening primrose (*Calylophus serrulatus*), harebell (*Campanula rotundifolia*), purple prairie clover (*Dalea purpurea*), prairie ragwort (*Packera plattensis*), and western wheatgrass (*Pascopyrum smithii*) also common. Information pertaining to each of the mapped habitat polygons is included in **Appendix I** with representative photos in **Appendix J**. All habitat polygons are depicted in the mapbook, **DLP_ND_DASK_Habitat_Mapbook**.

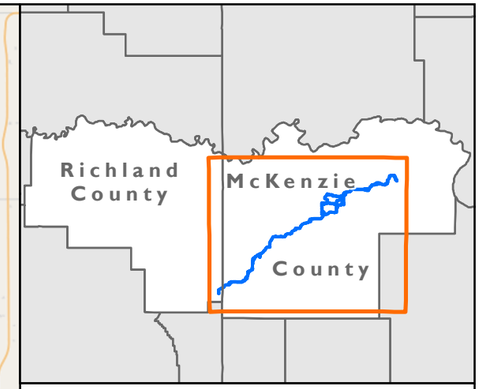
References

Cowardin, LM, V Carter, FC Golet, and ET LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC.

US Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification. December 7, 2005.

US Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0). ERDC/EL TR-10-1. US Army Engineer Research and Development Center, Vicksburg, MS.





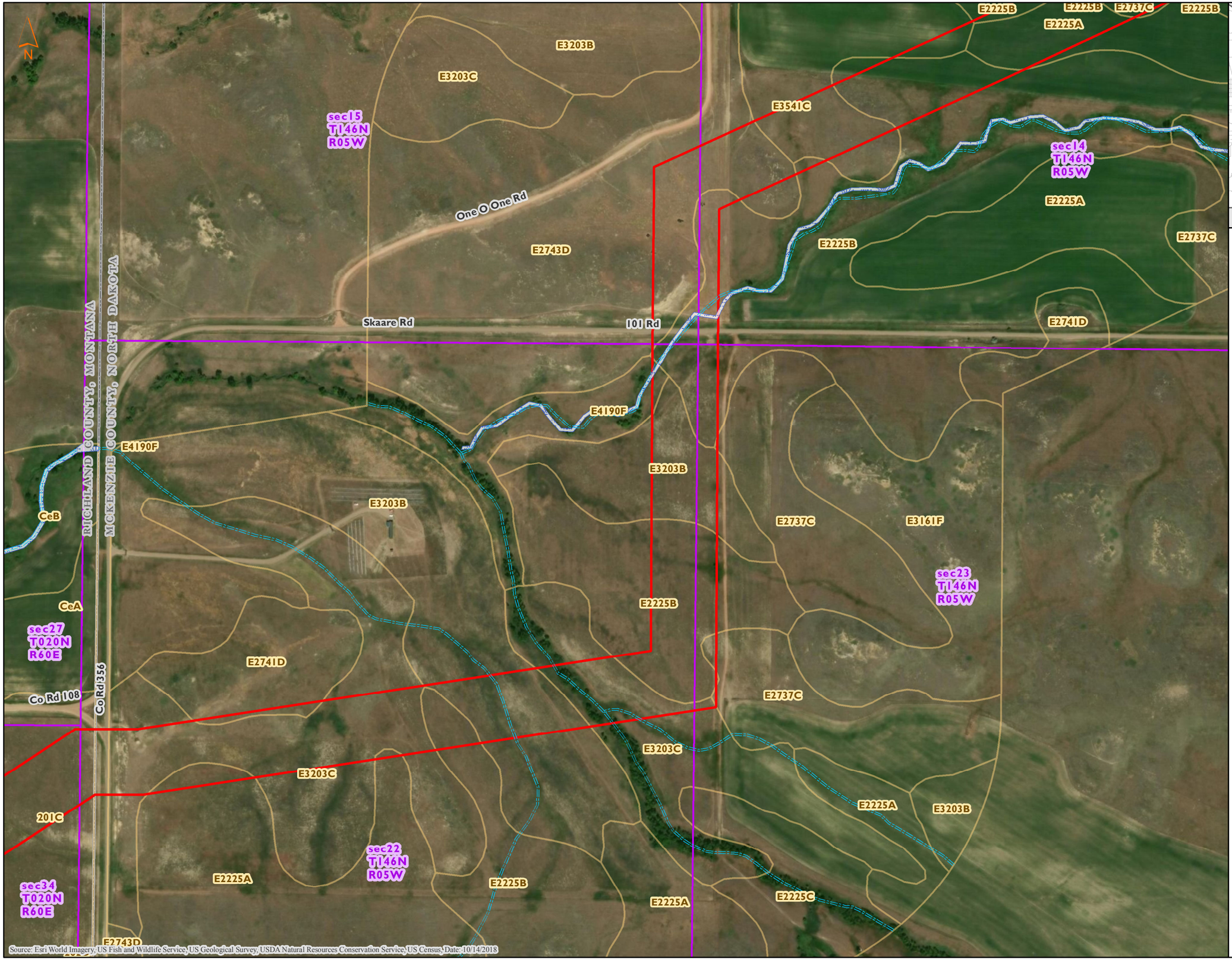
Project Overview
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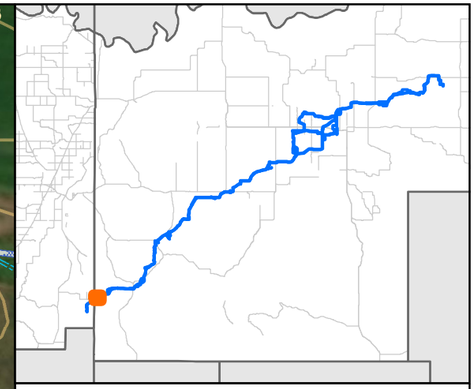
Figure 1 of 84

Existing Data Mapbook

Environmental Survey Area

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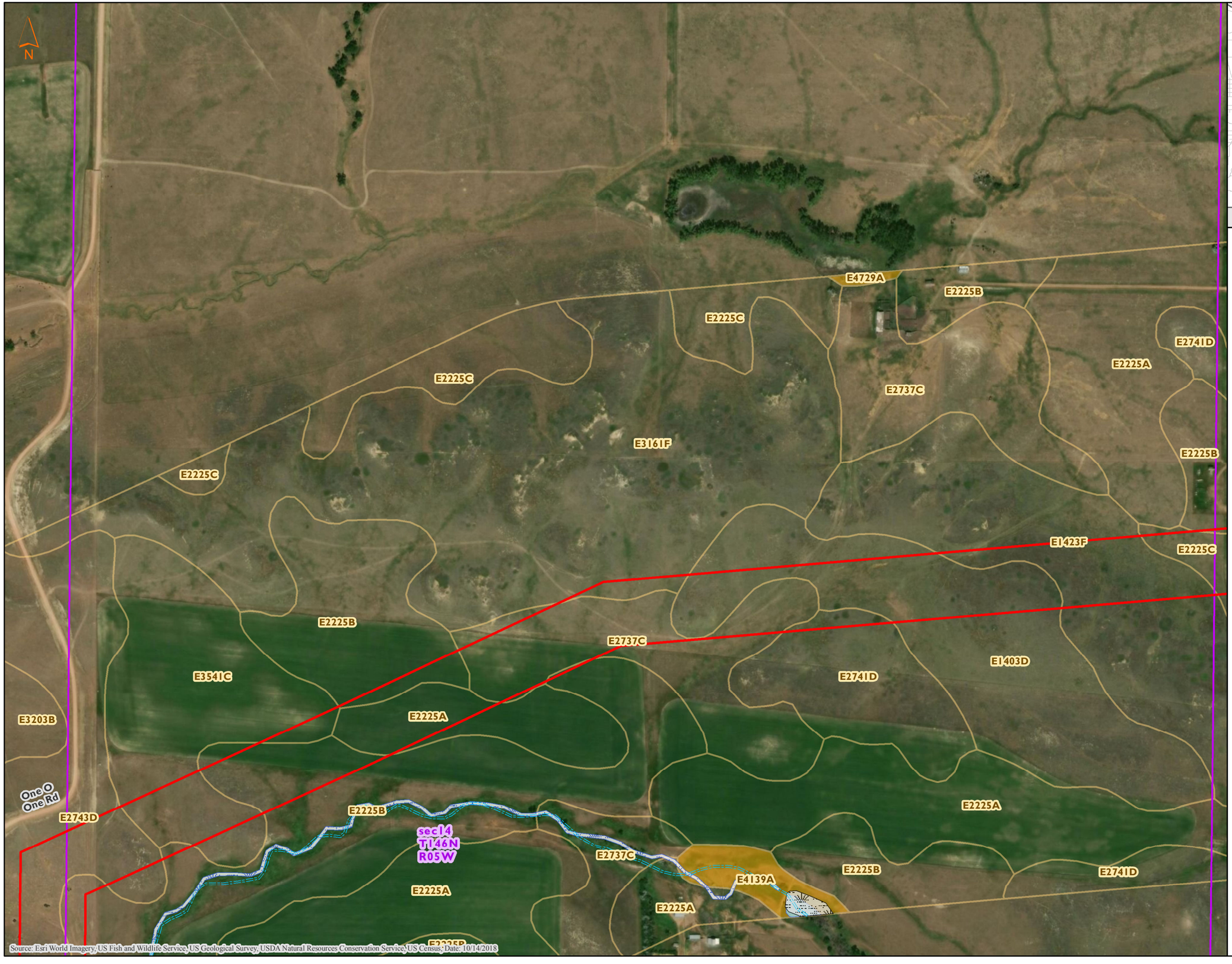
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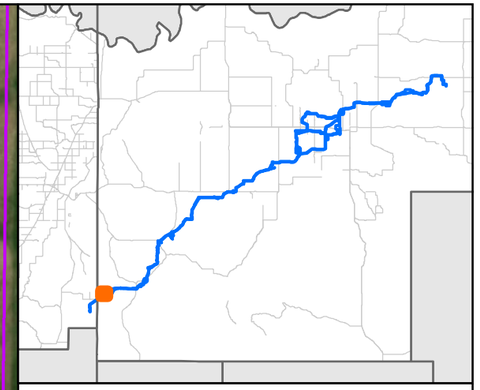
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 2 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





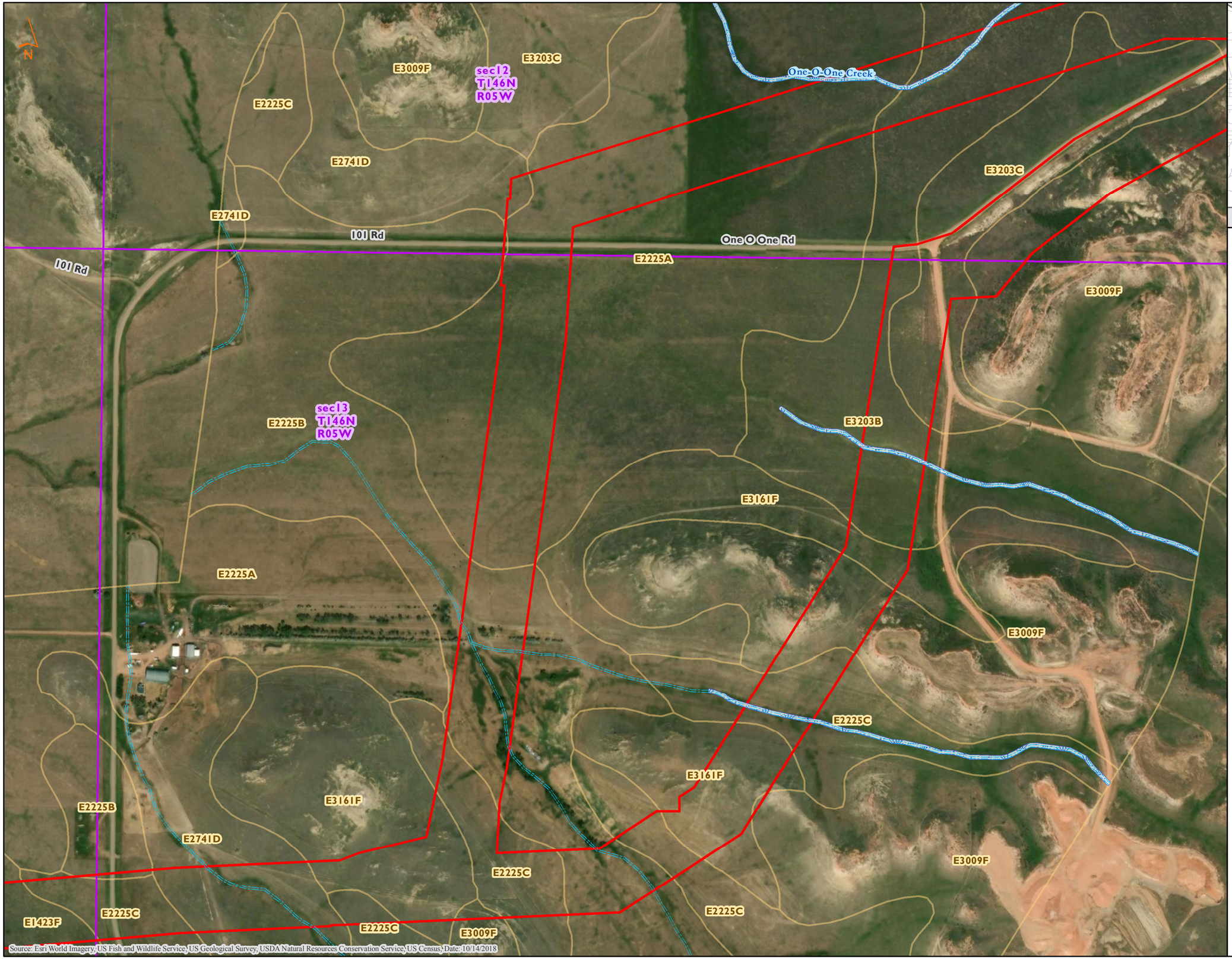
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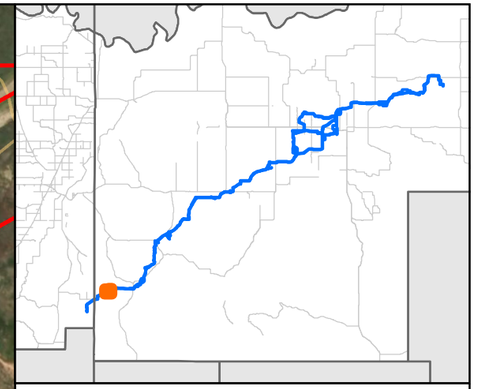
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 3 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





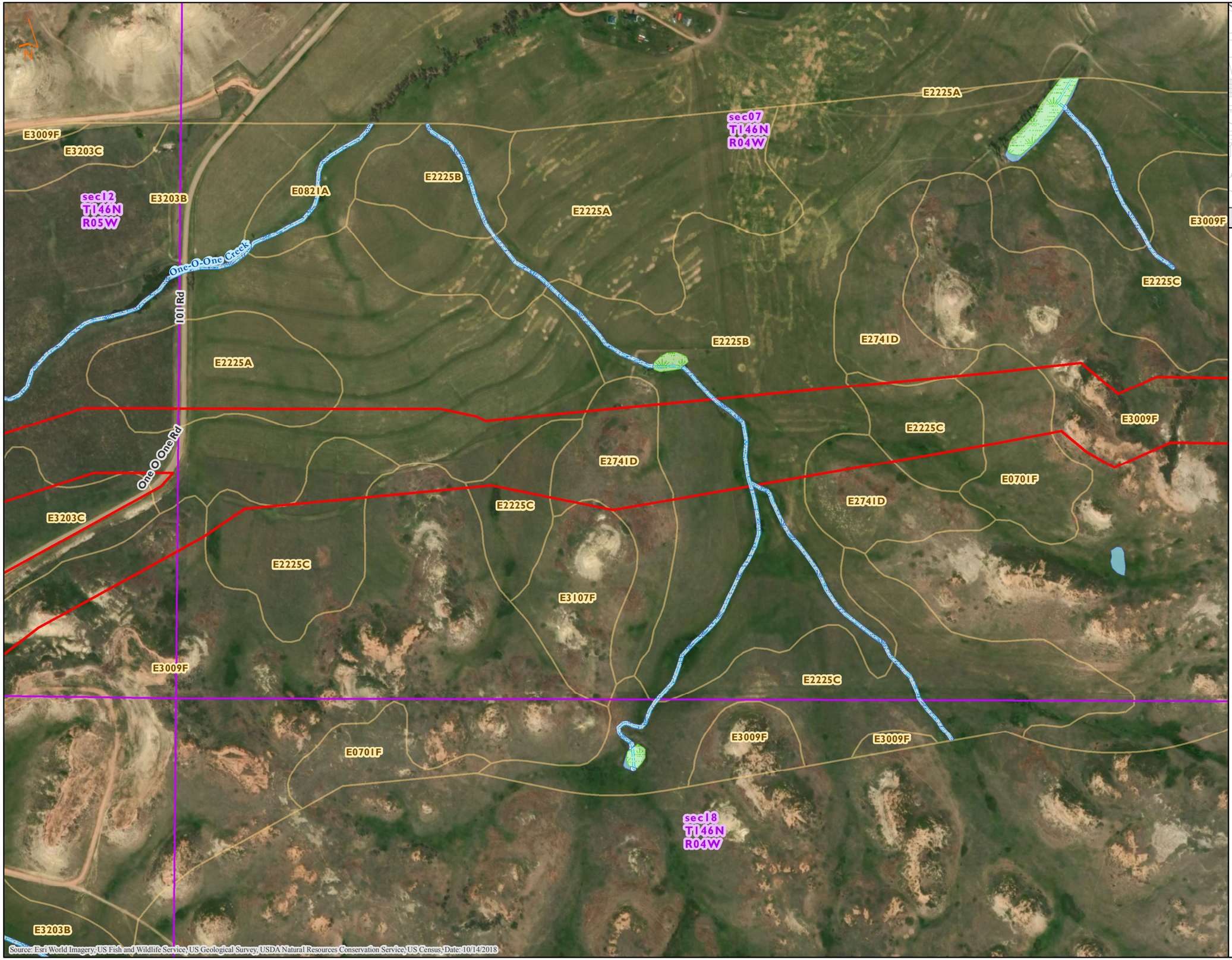
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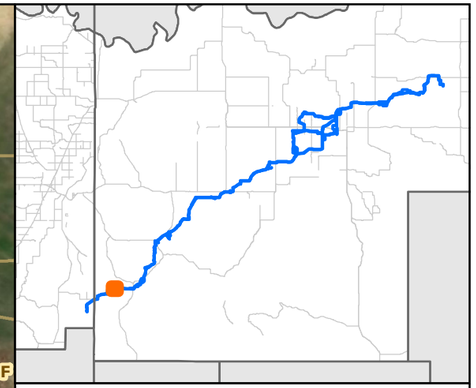
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 4 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





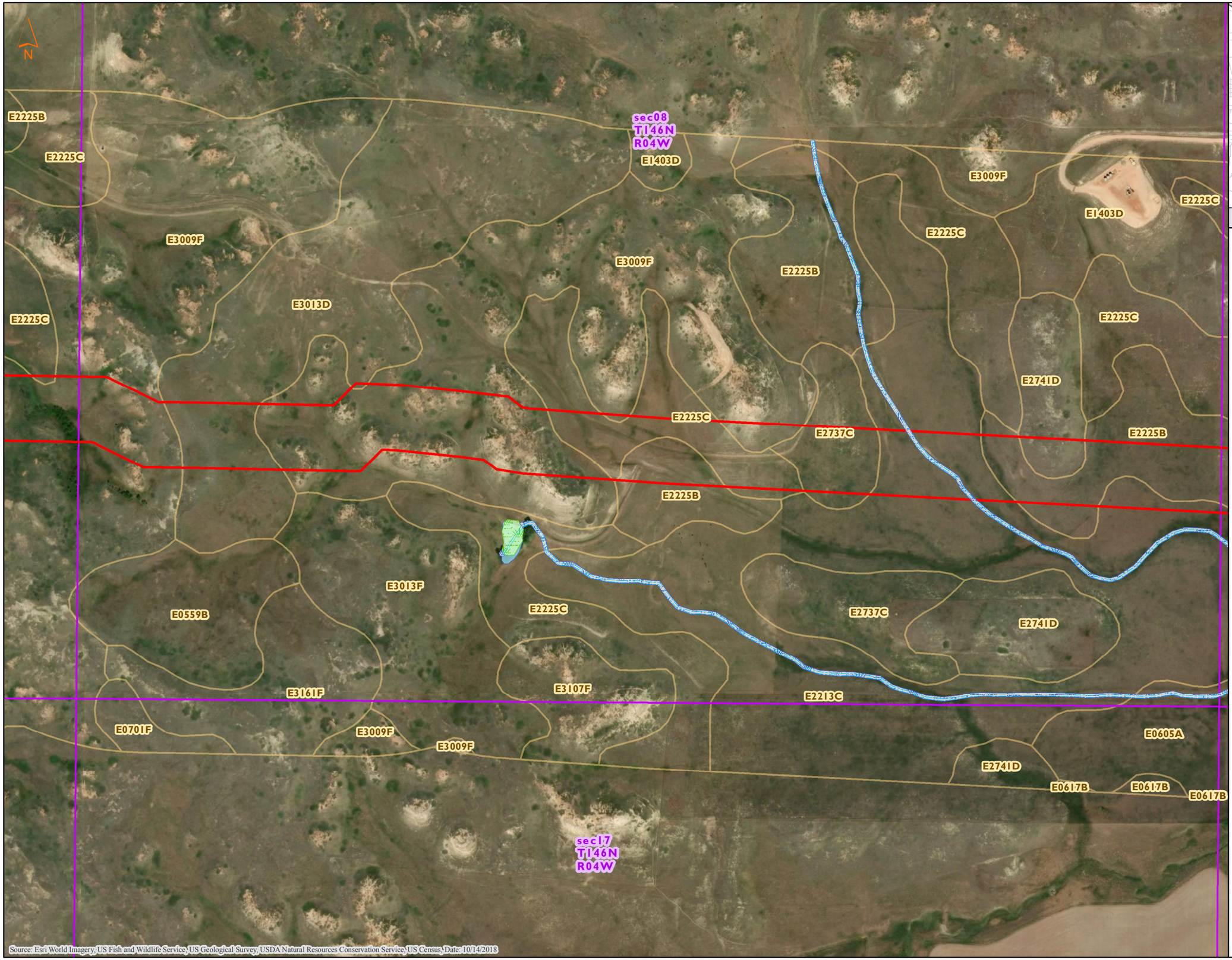
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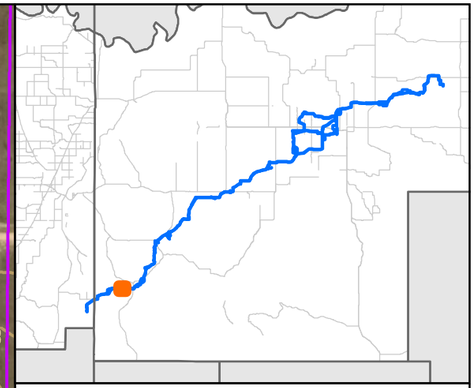
NHD/NWI Features, SSURGO Soils
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McKenzie County, North Dakota

Figure 5 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





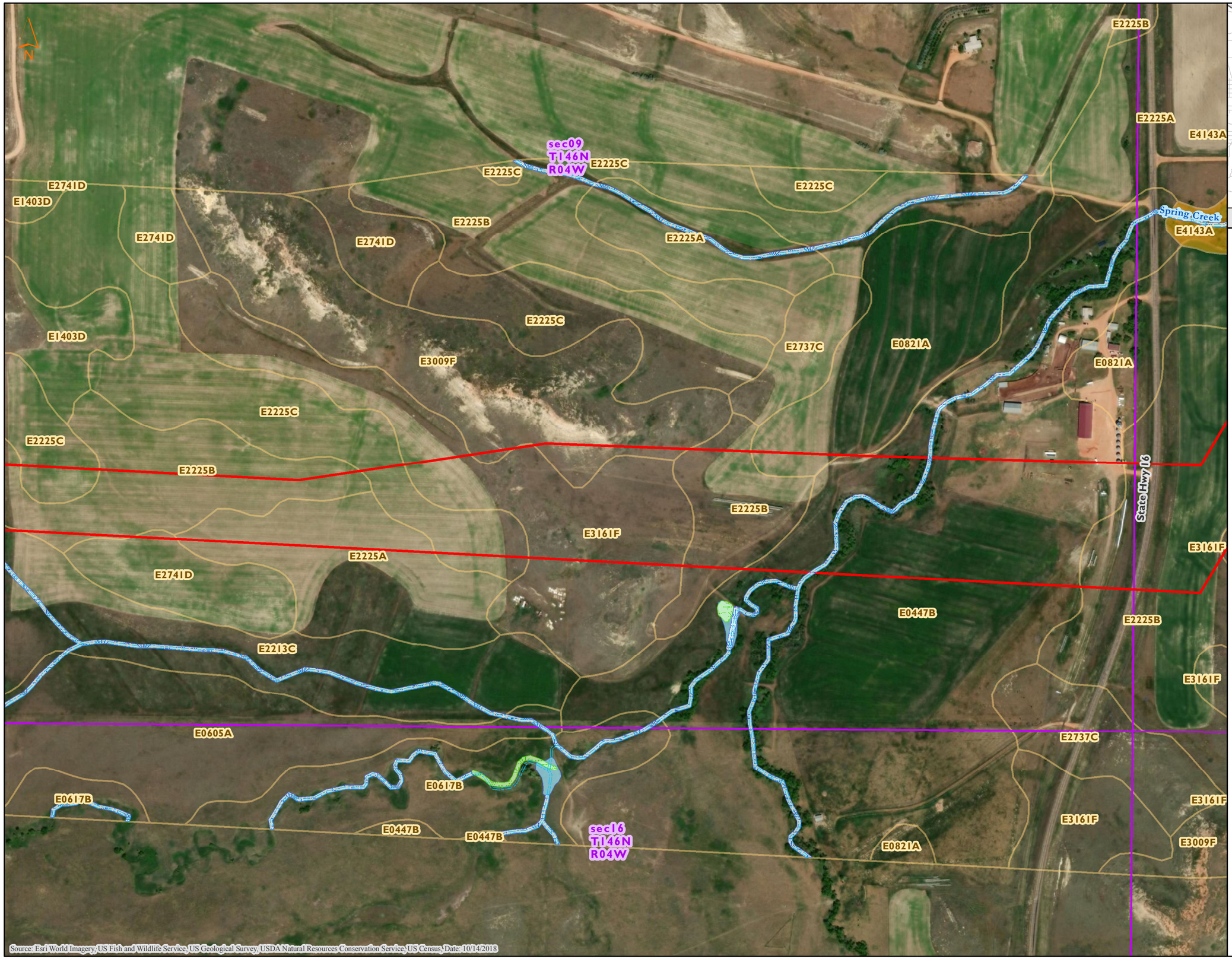
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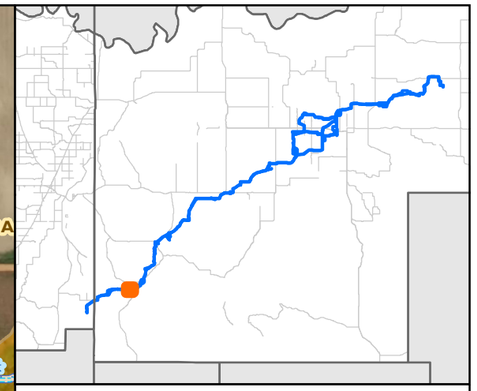
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 6 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





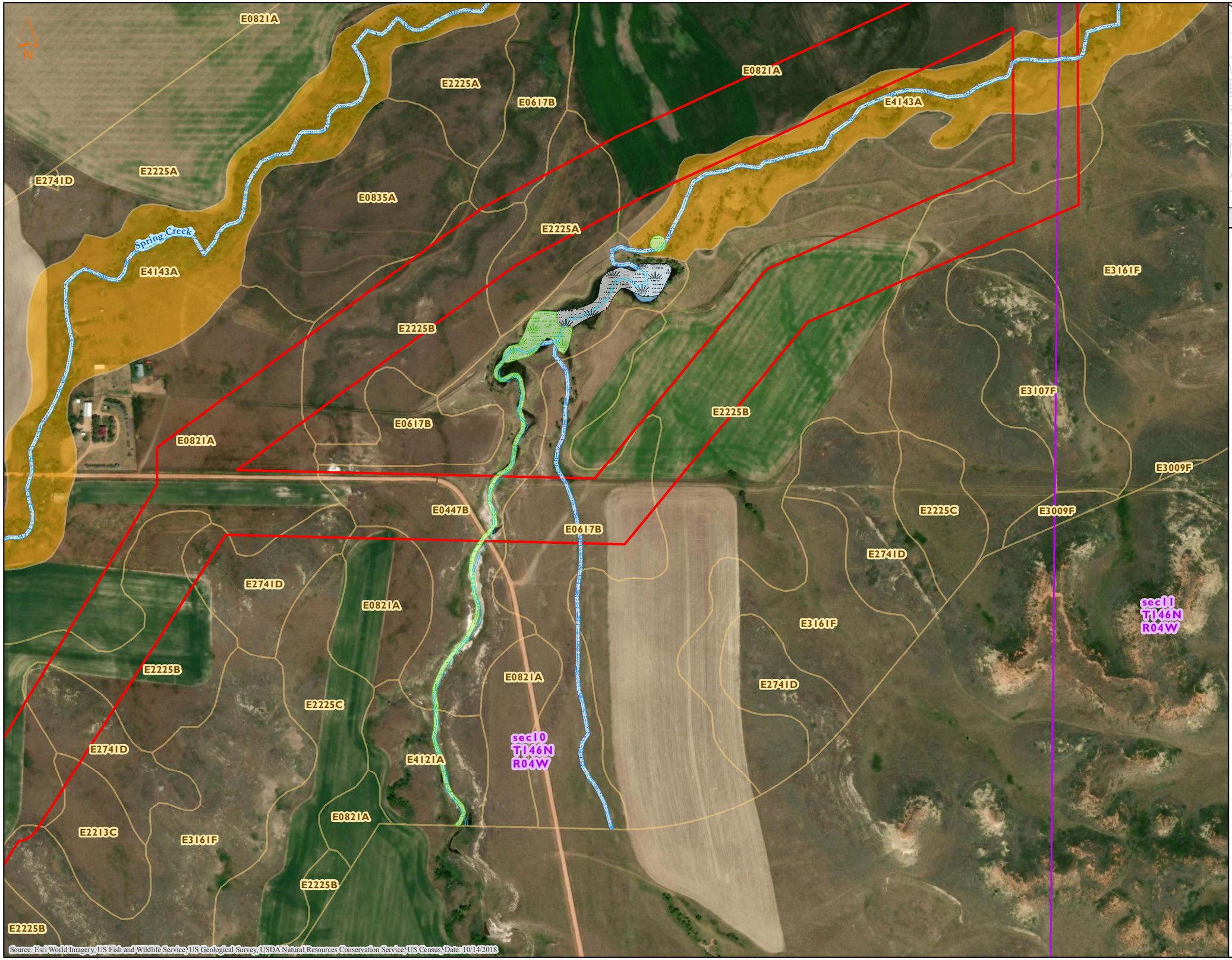
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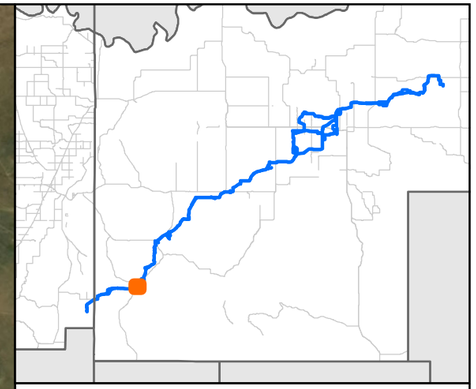
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 7 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





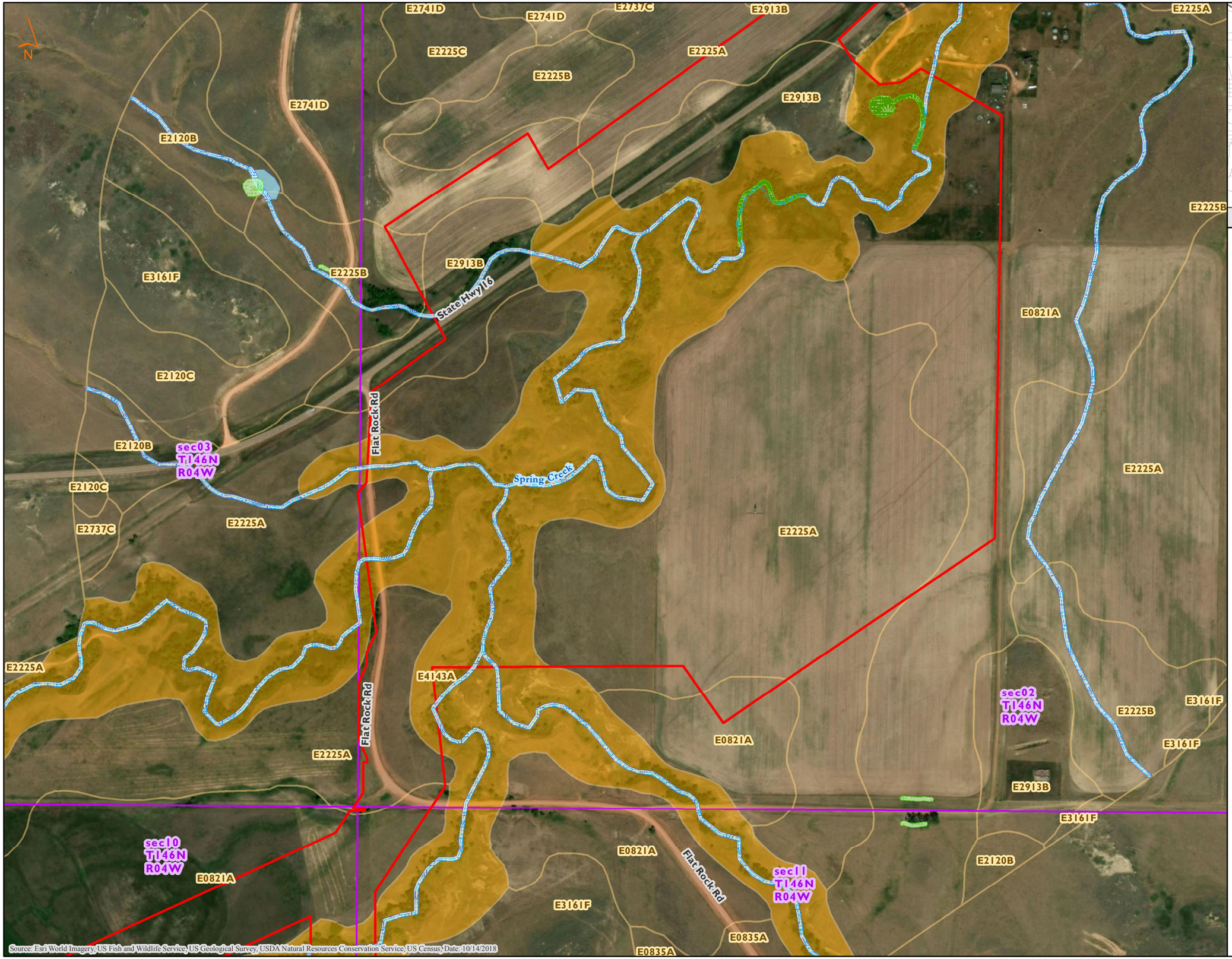
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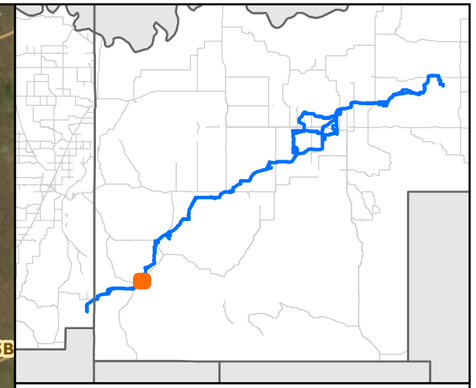
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 8 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





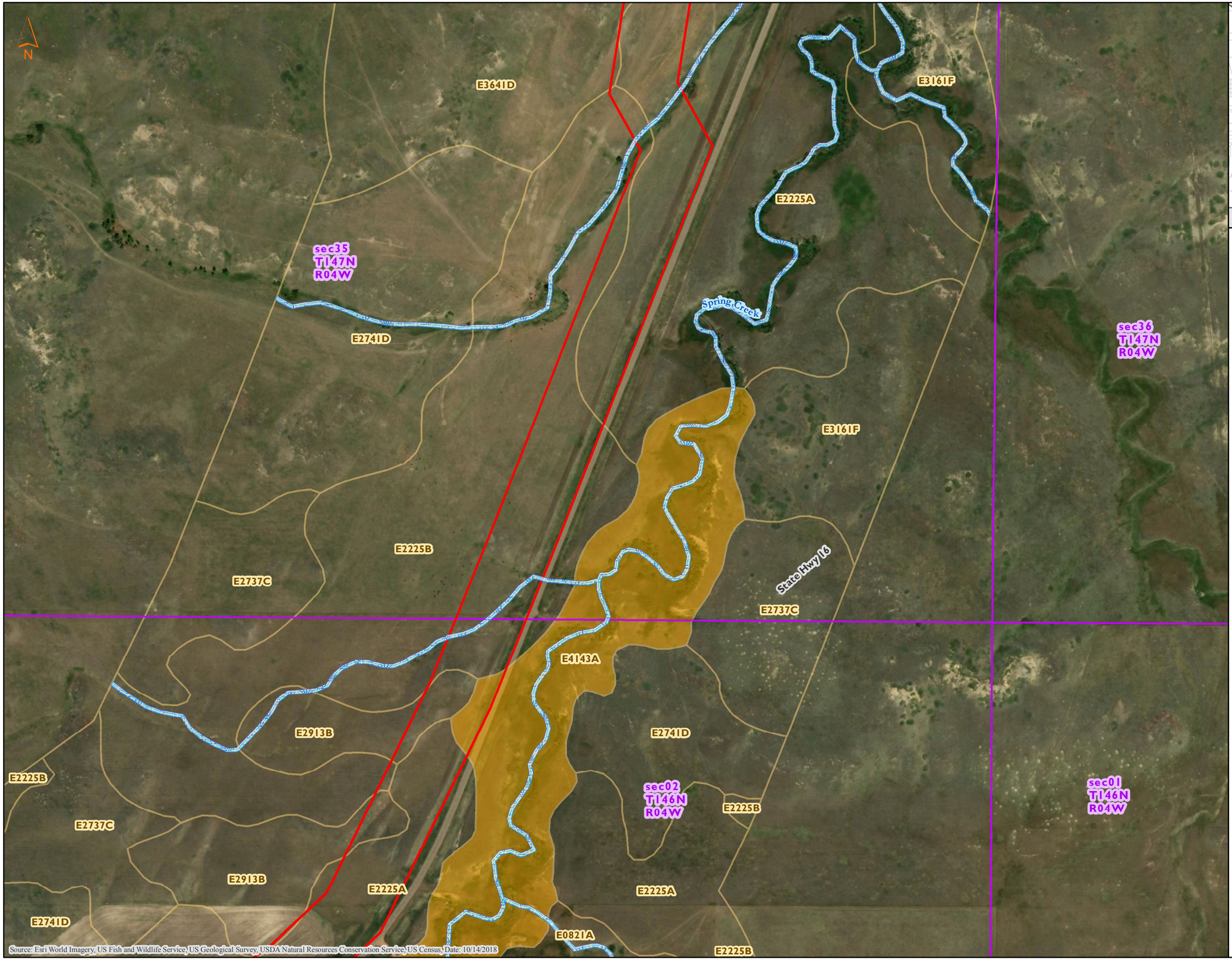
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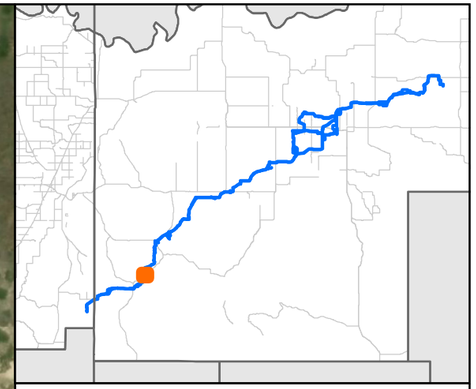
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 9 of 84

- NHD Stream
- NHD Waterbody
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- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





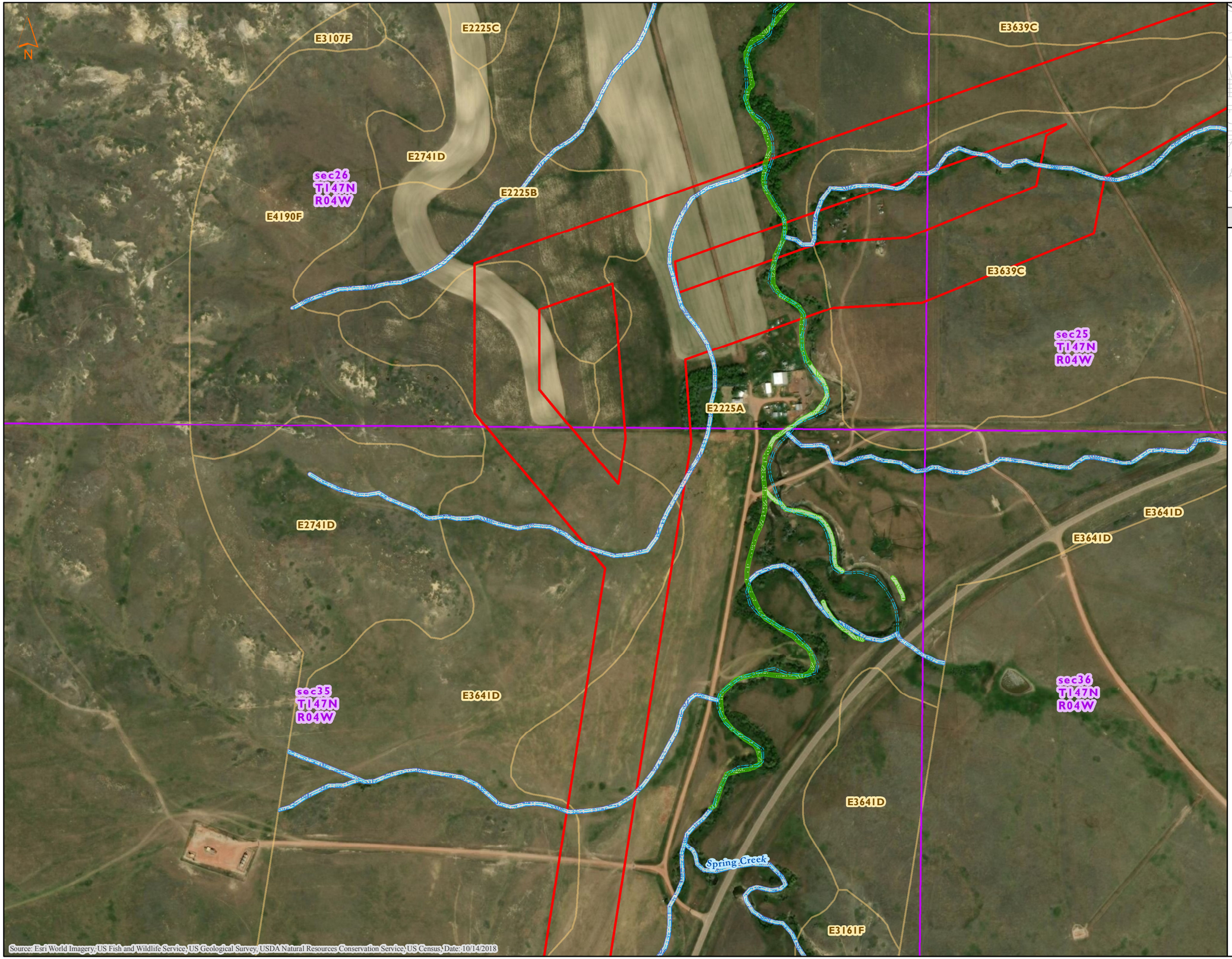
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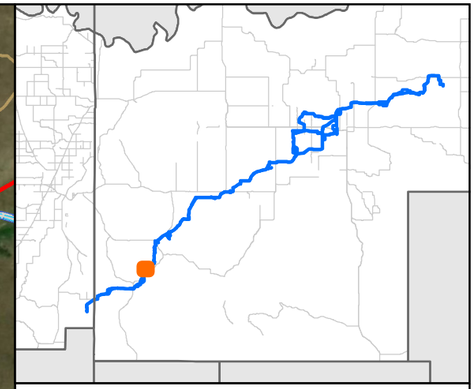
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 10 of 84

- NHD Stream
- NHD Waterbody
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- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





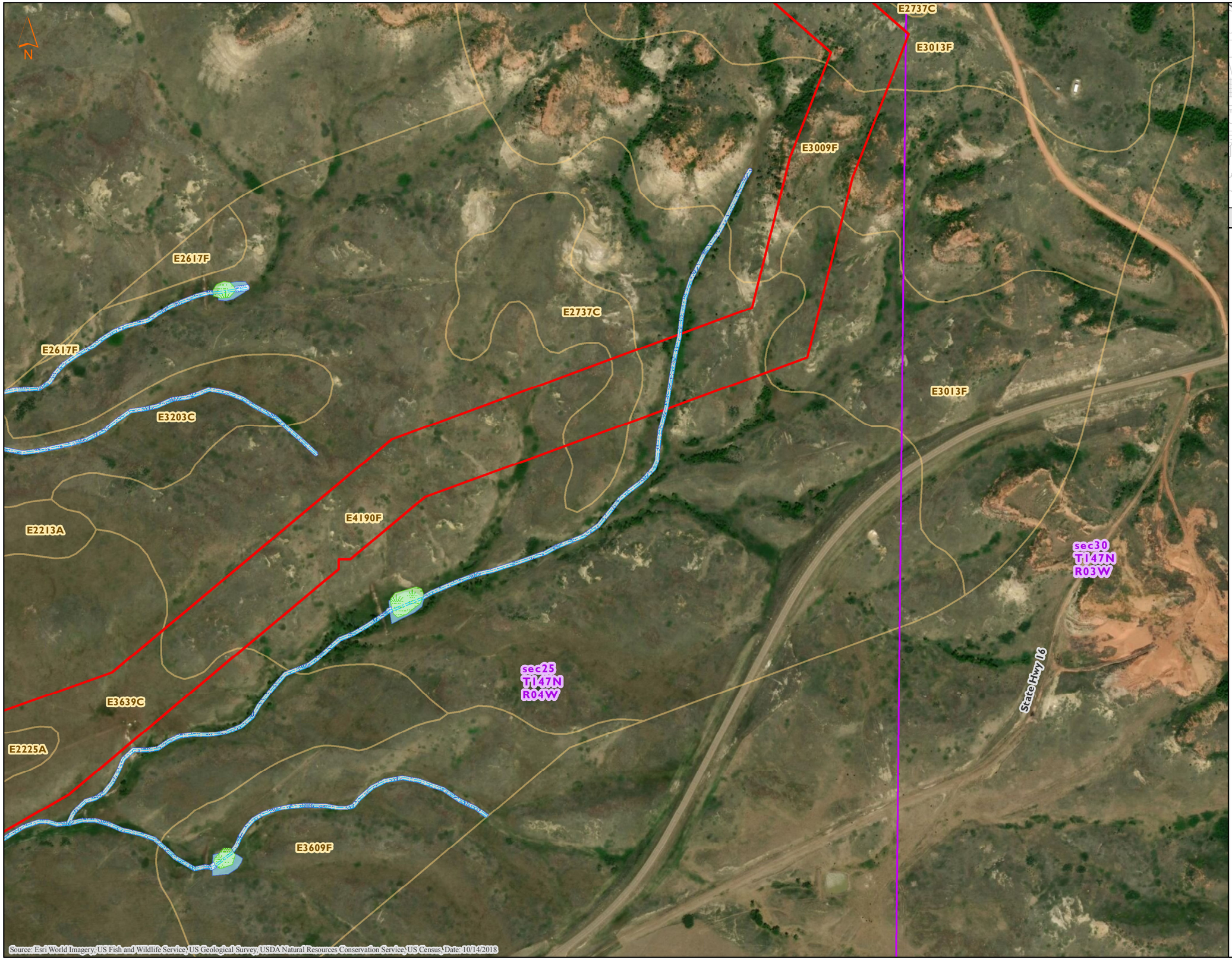
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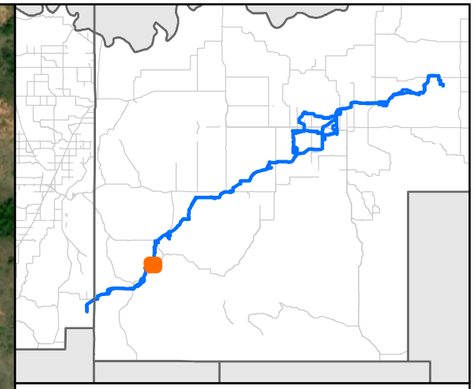
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 11 of 84

- NHD Stream
- NHD Waterbody
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- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

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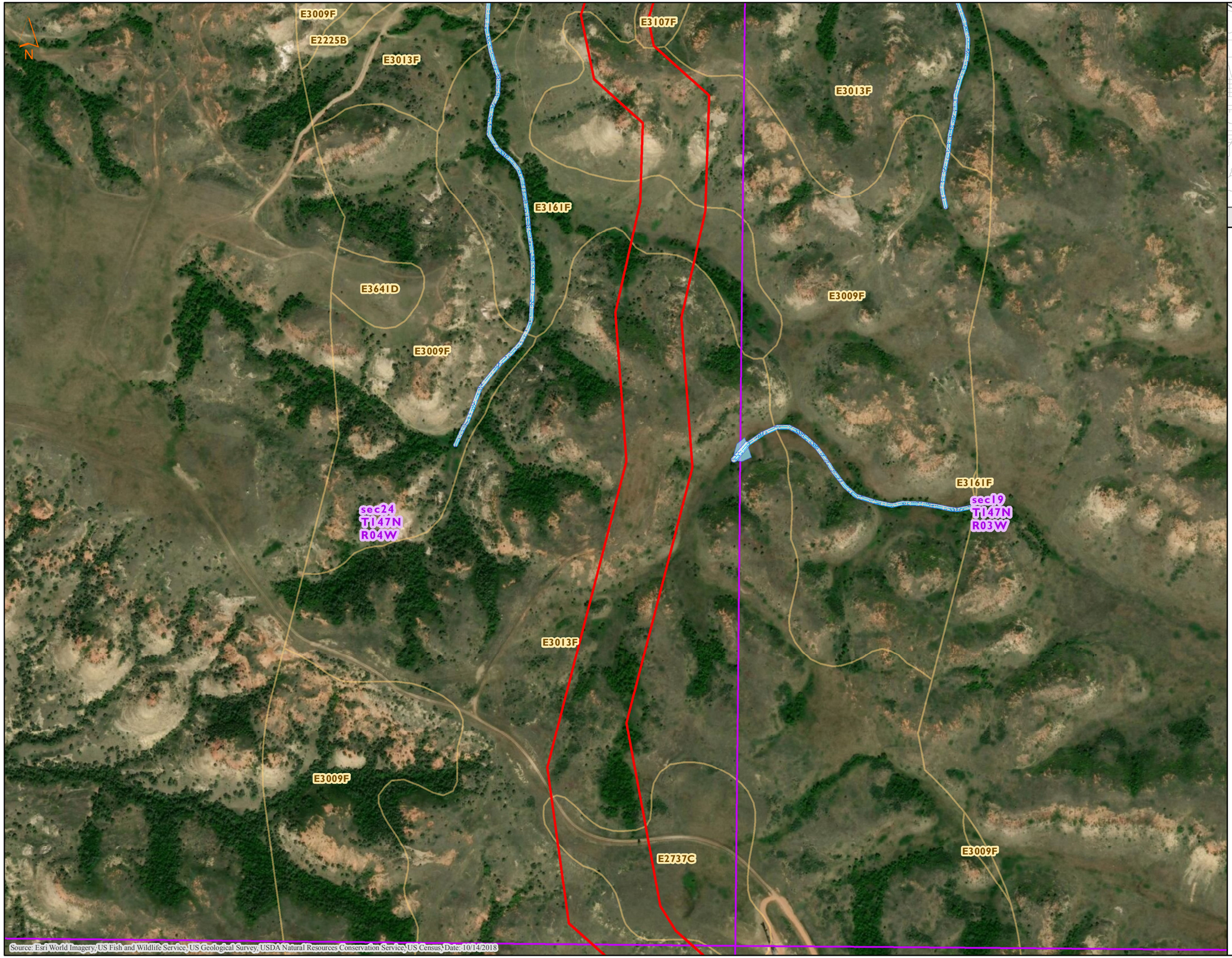
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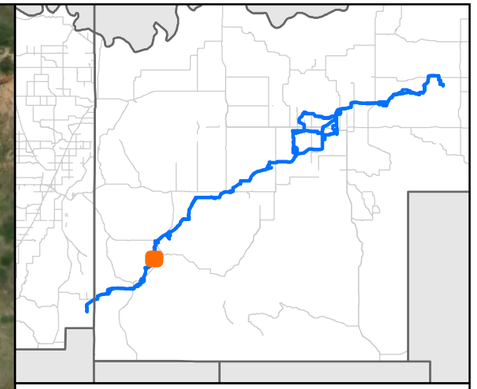
NHD/NWI Features, SSURGO Soils
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ONEOK
McKenzie County, North Dakota

Figure 12 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





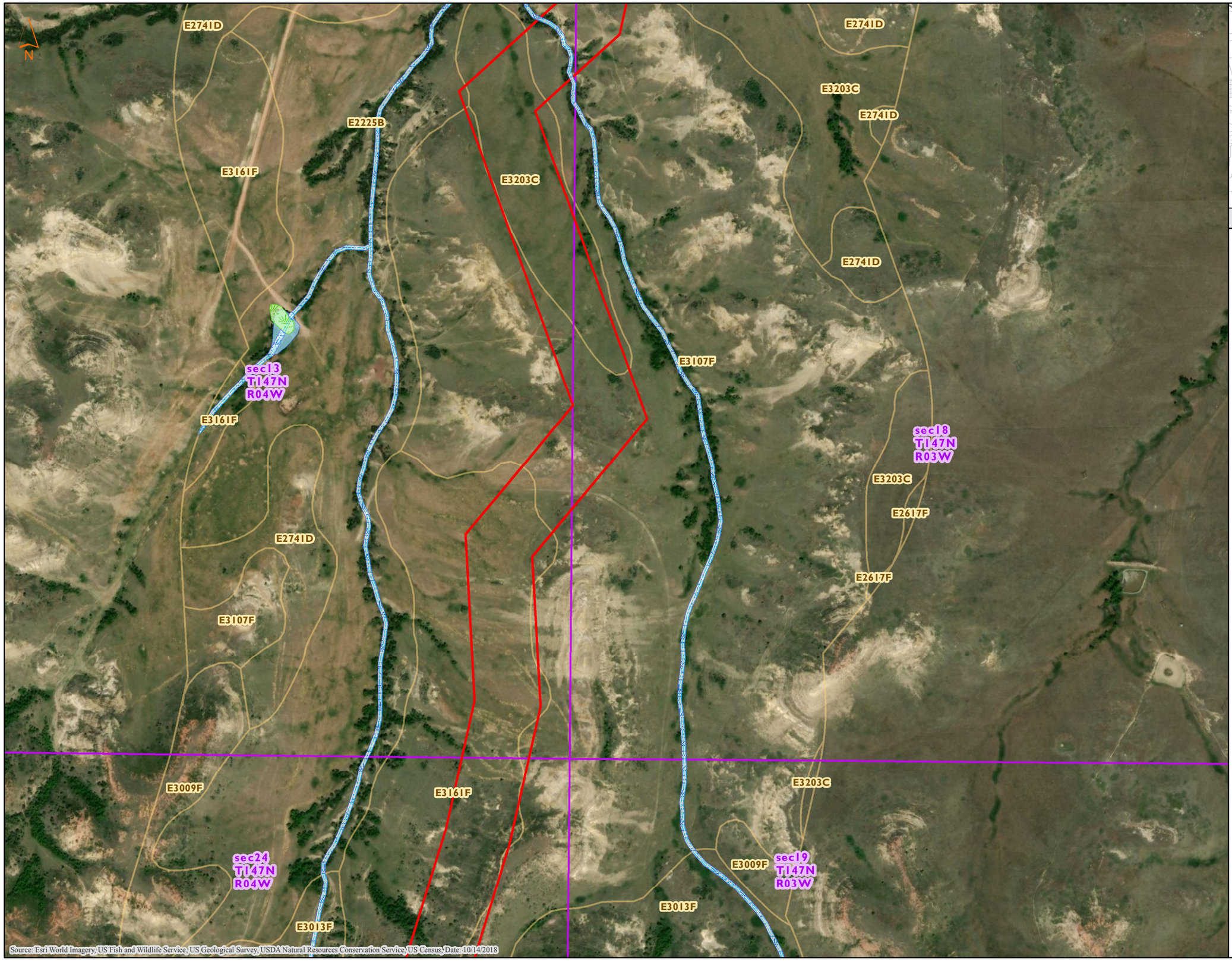
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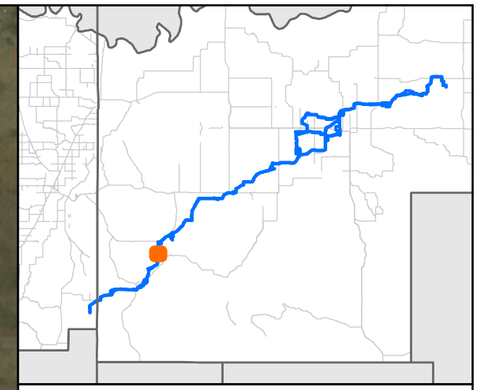
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 13 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





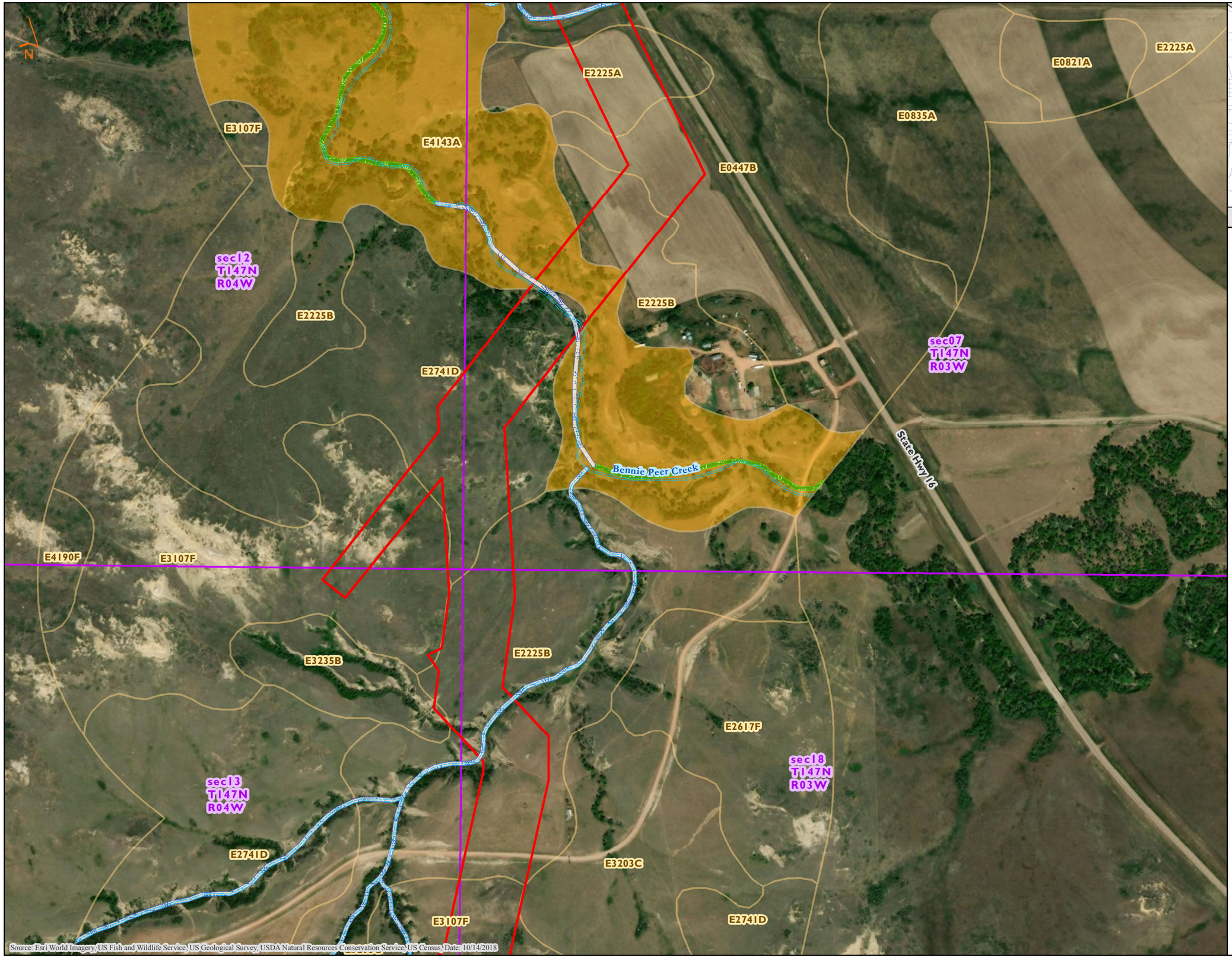
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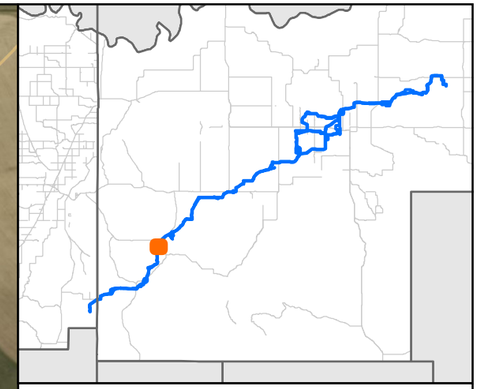
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 14 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





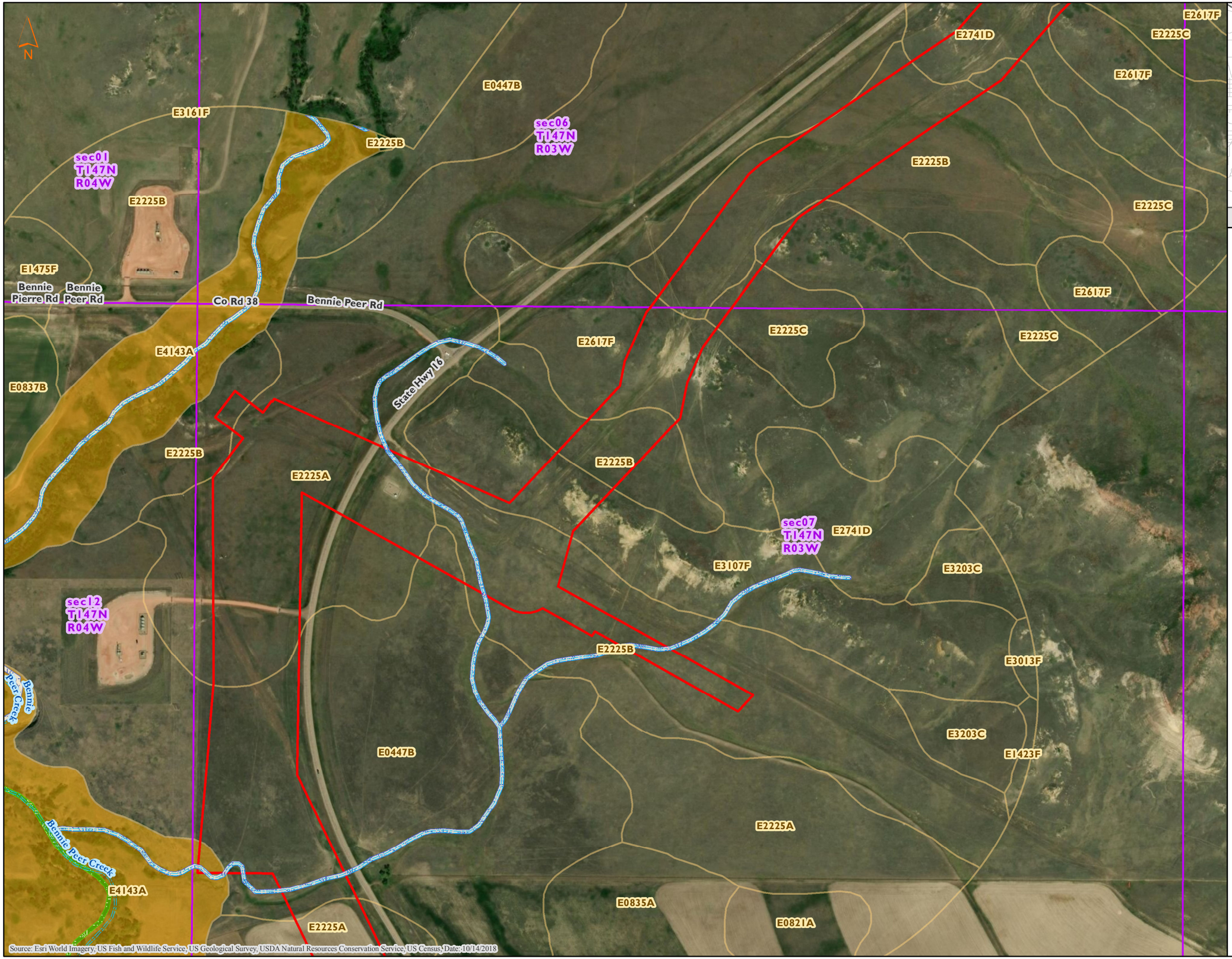
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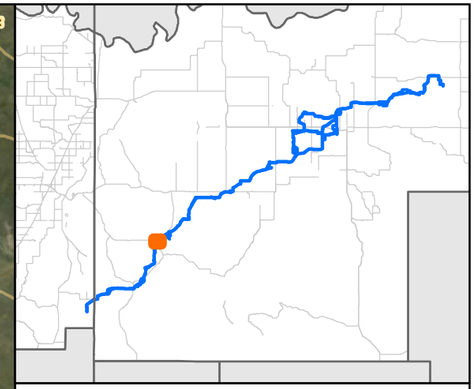
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 15 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





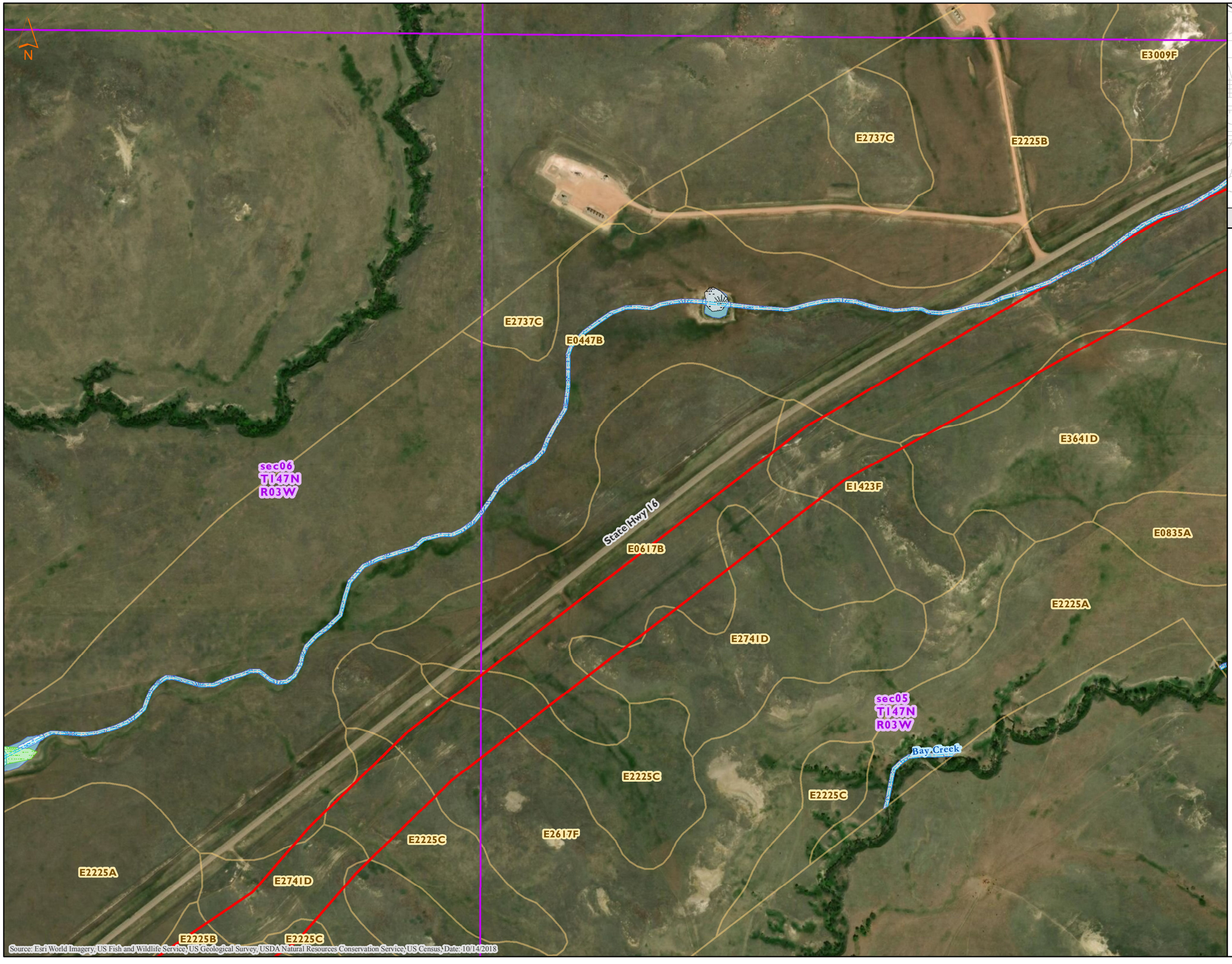
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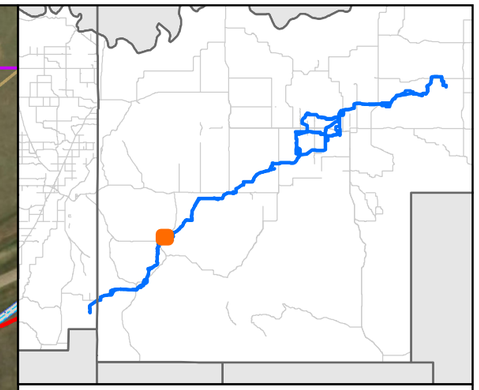
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 16 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





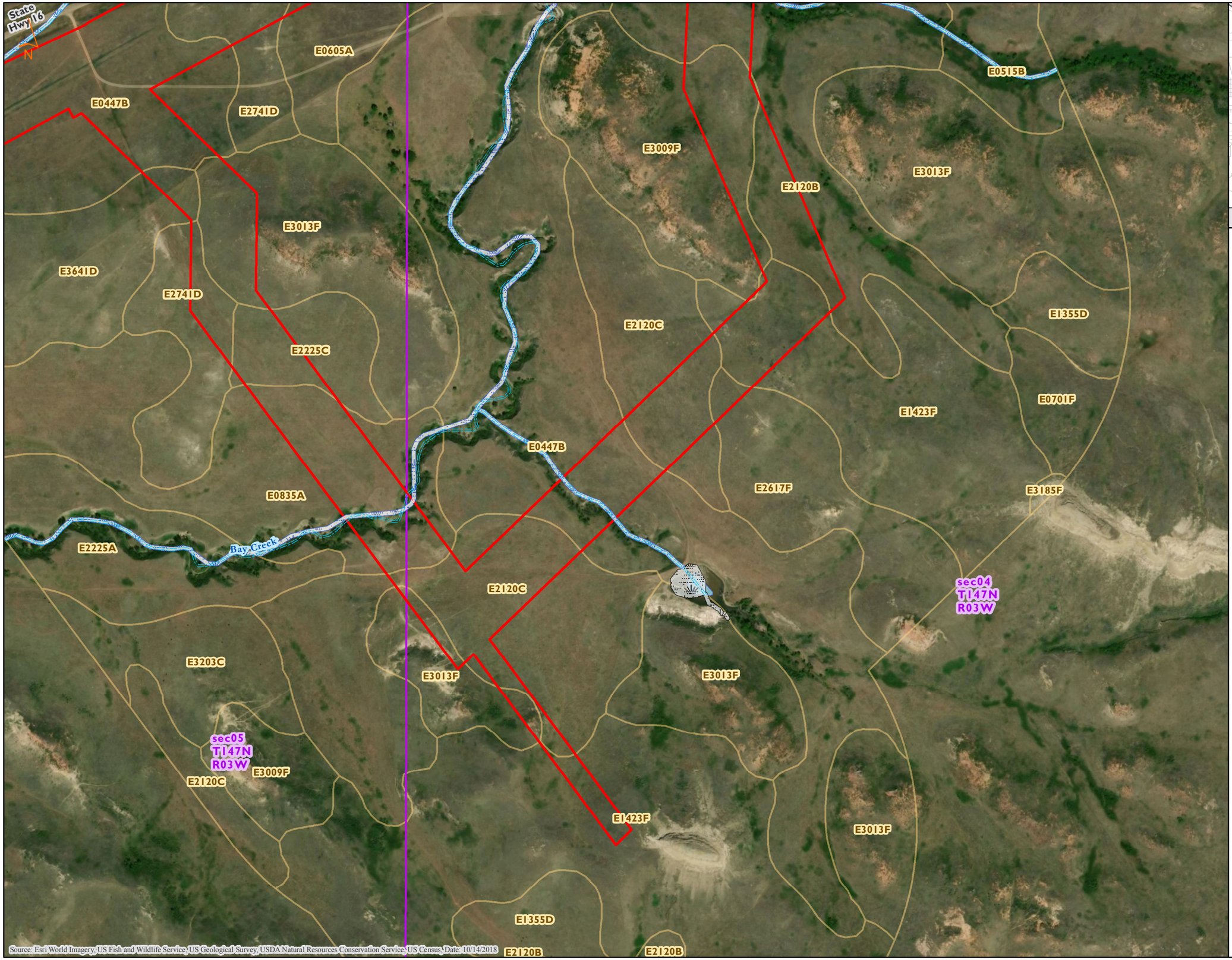
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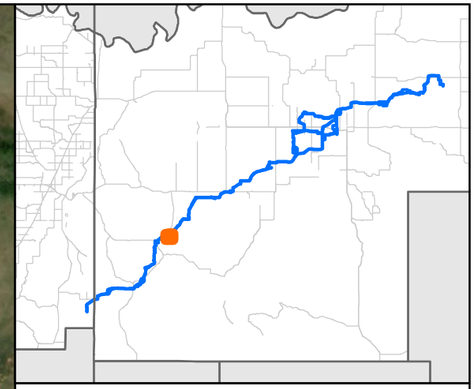
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 17 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet



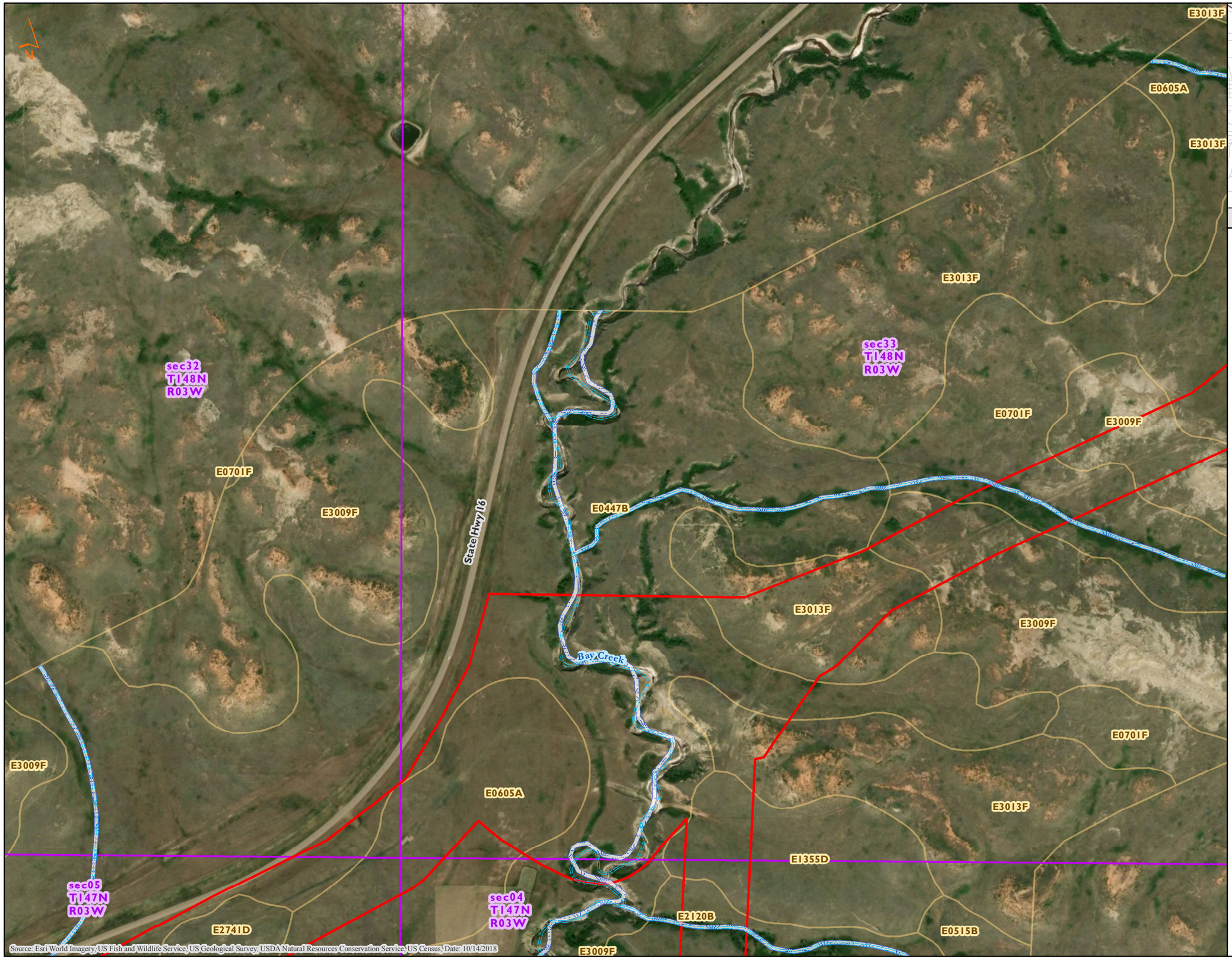


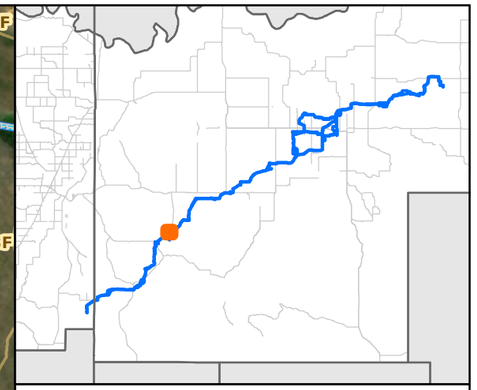
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 18 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





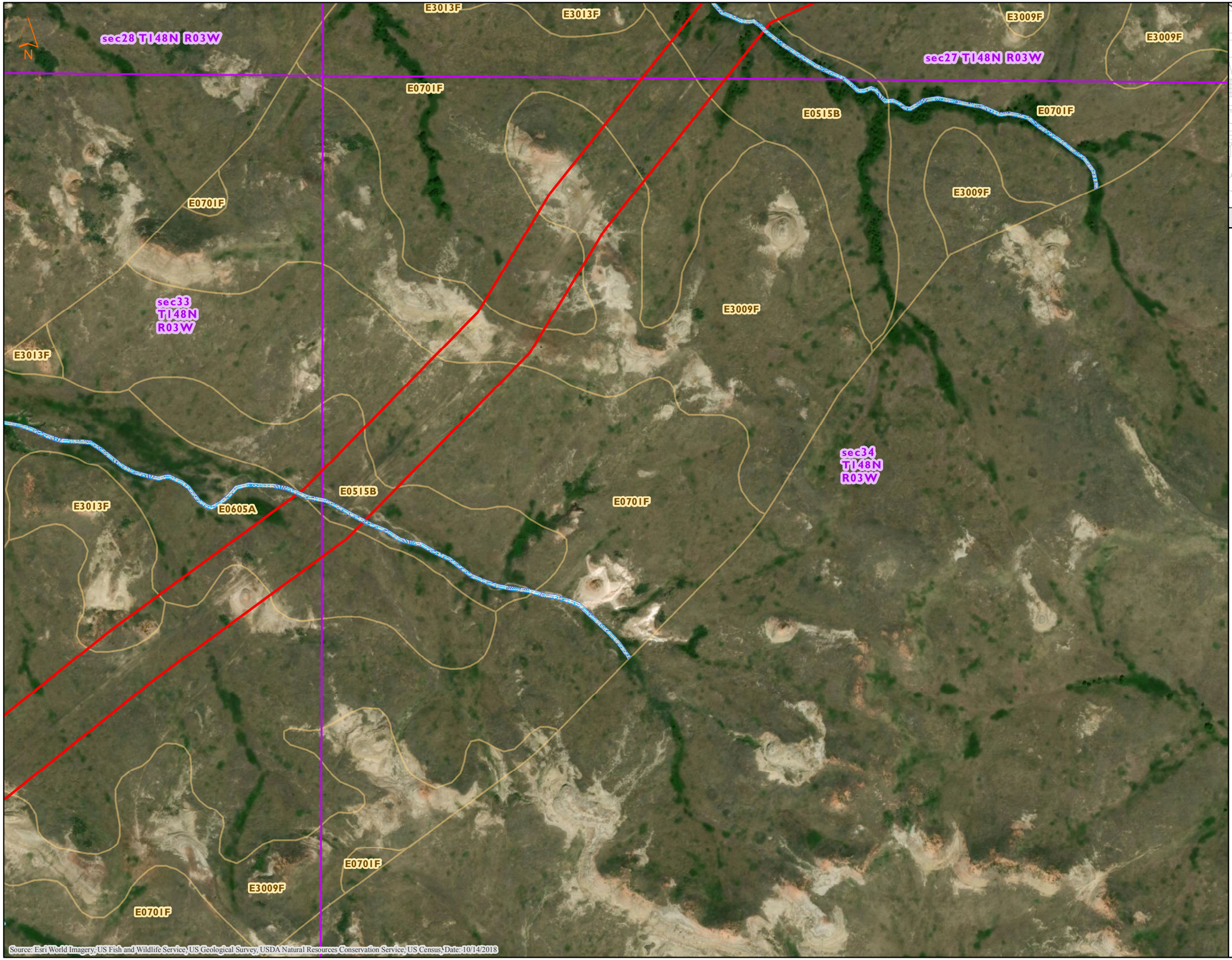
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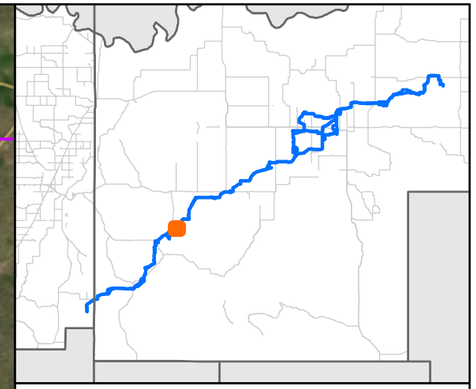
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 19 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





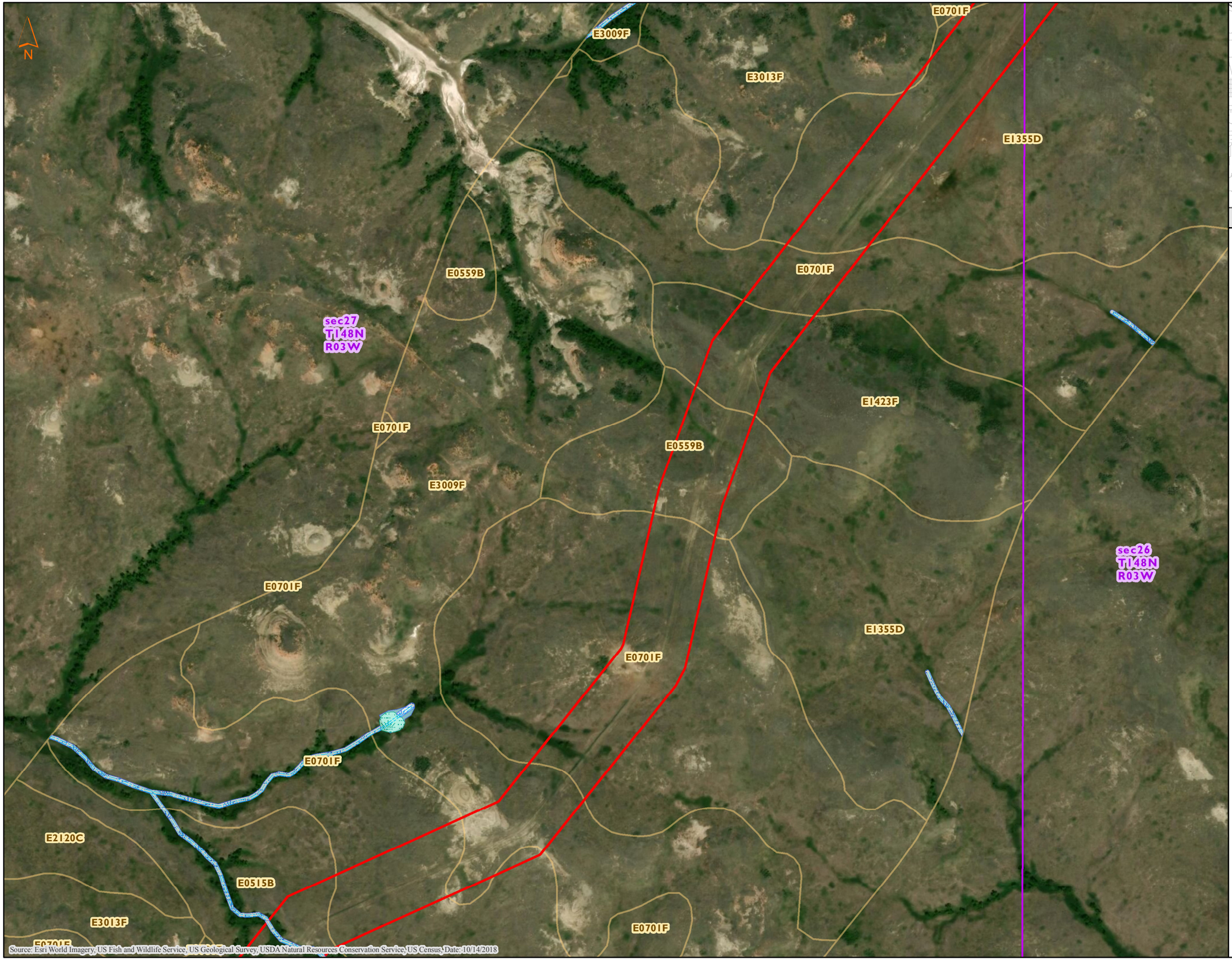
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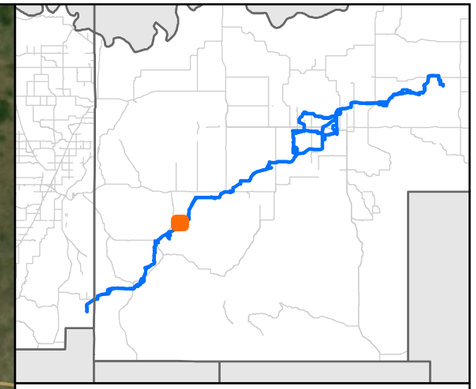
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 20 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





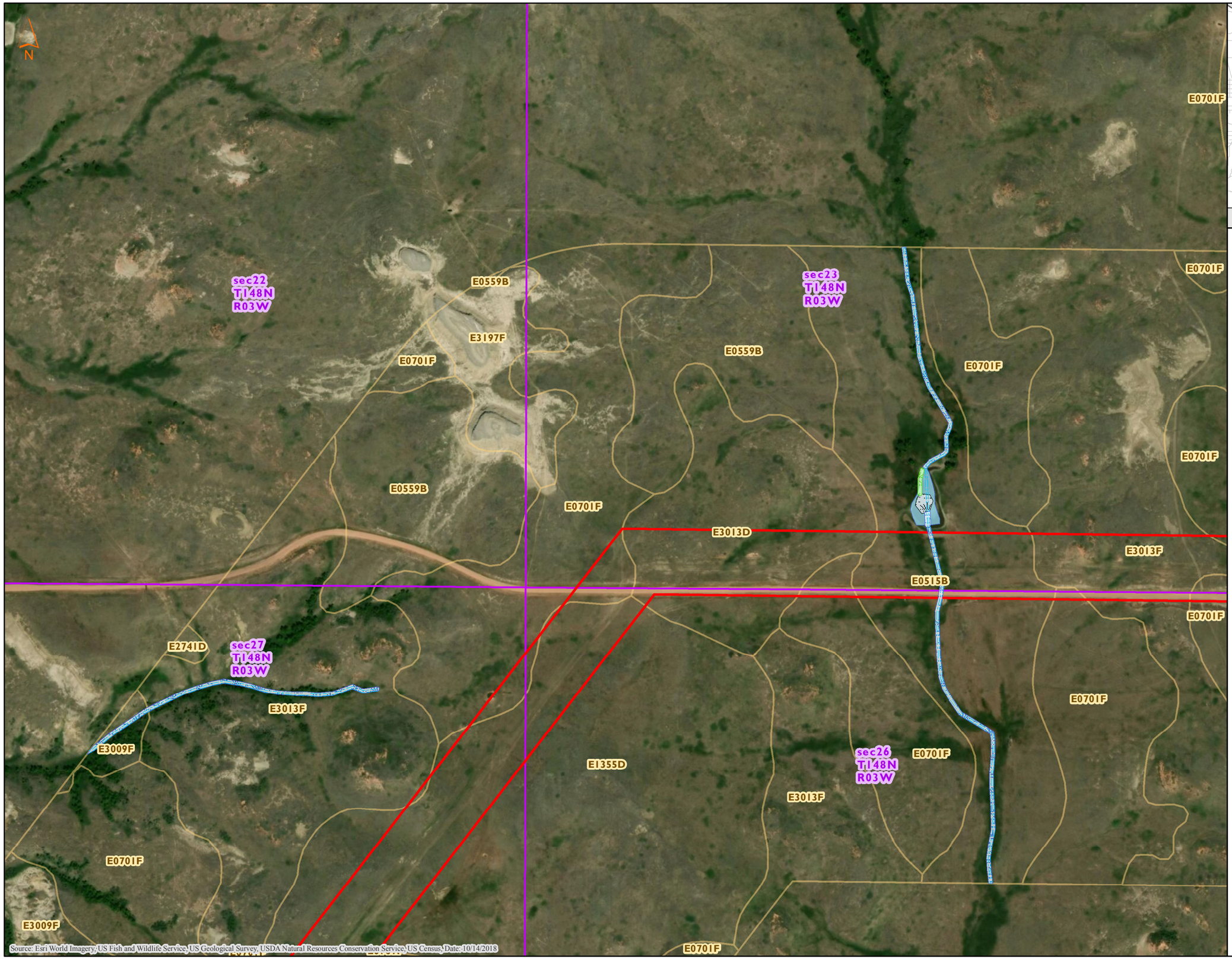
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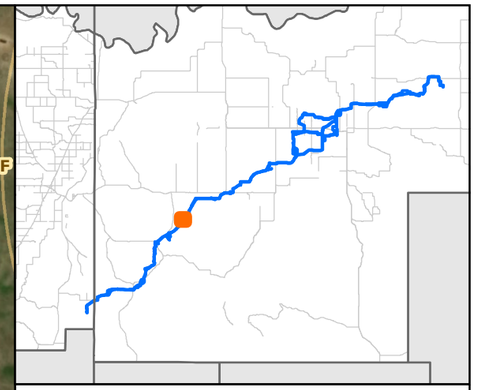
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 21 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





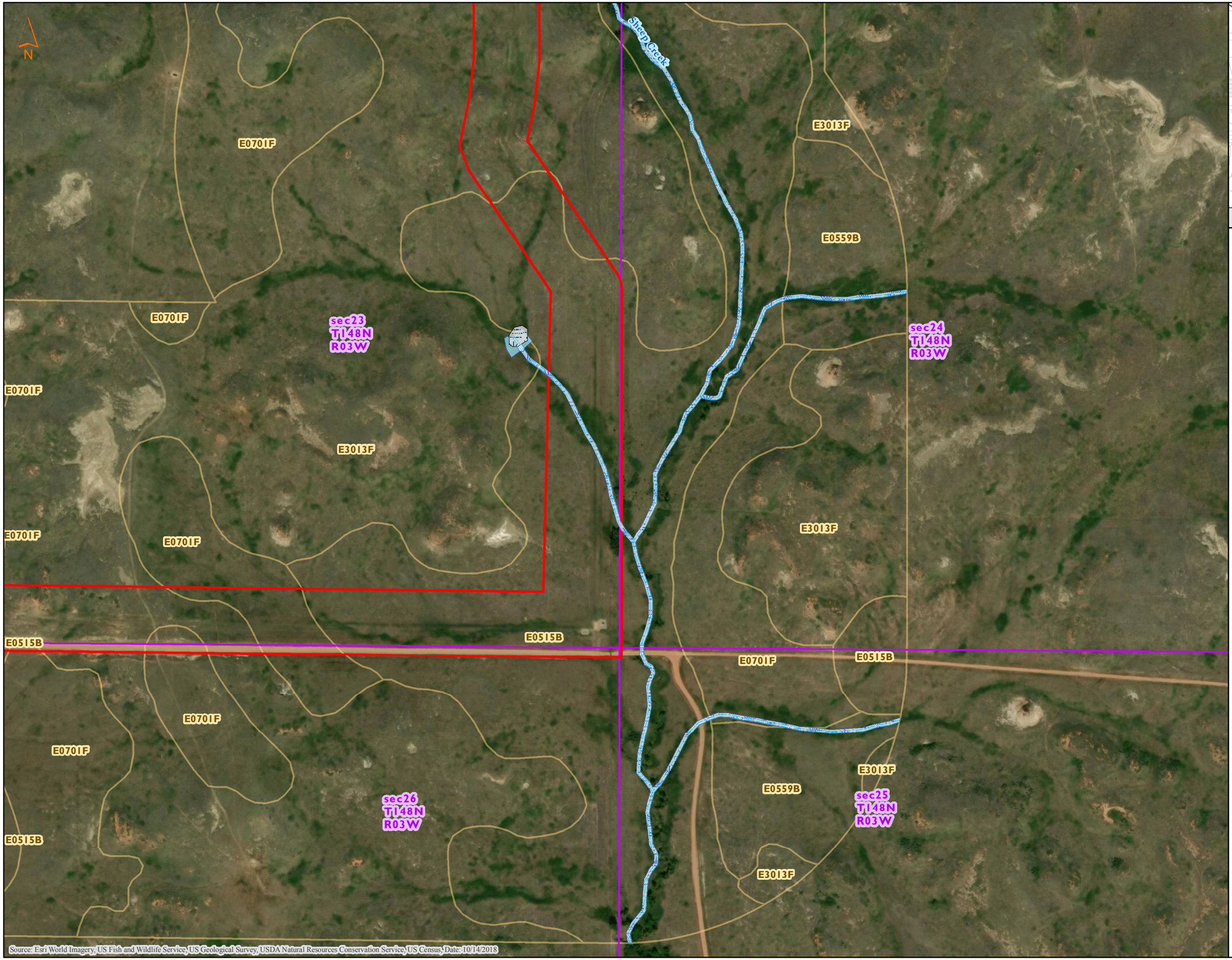
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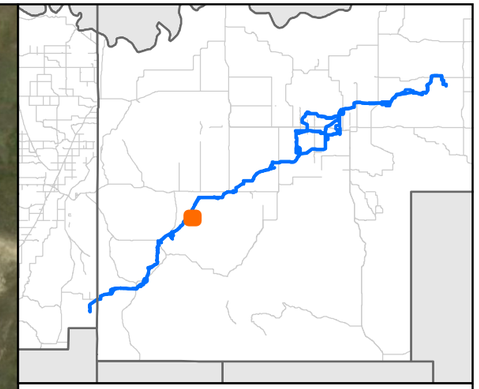
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 22 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





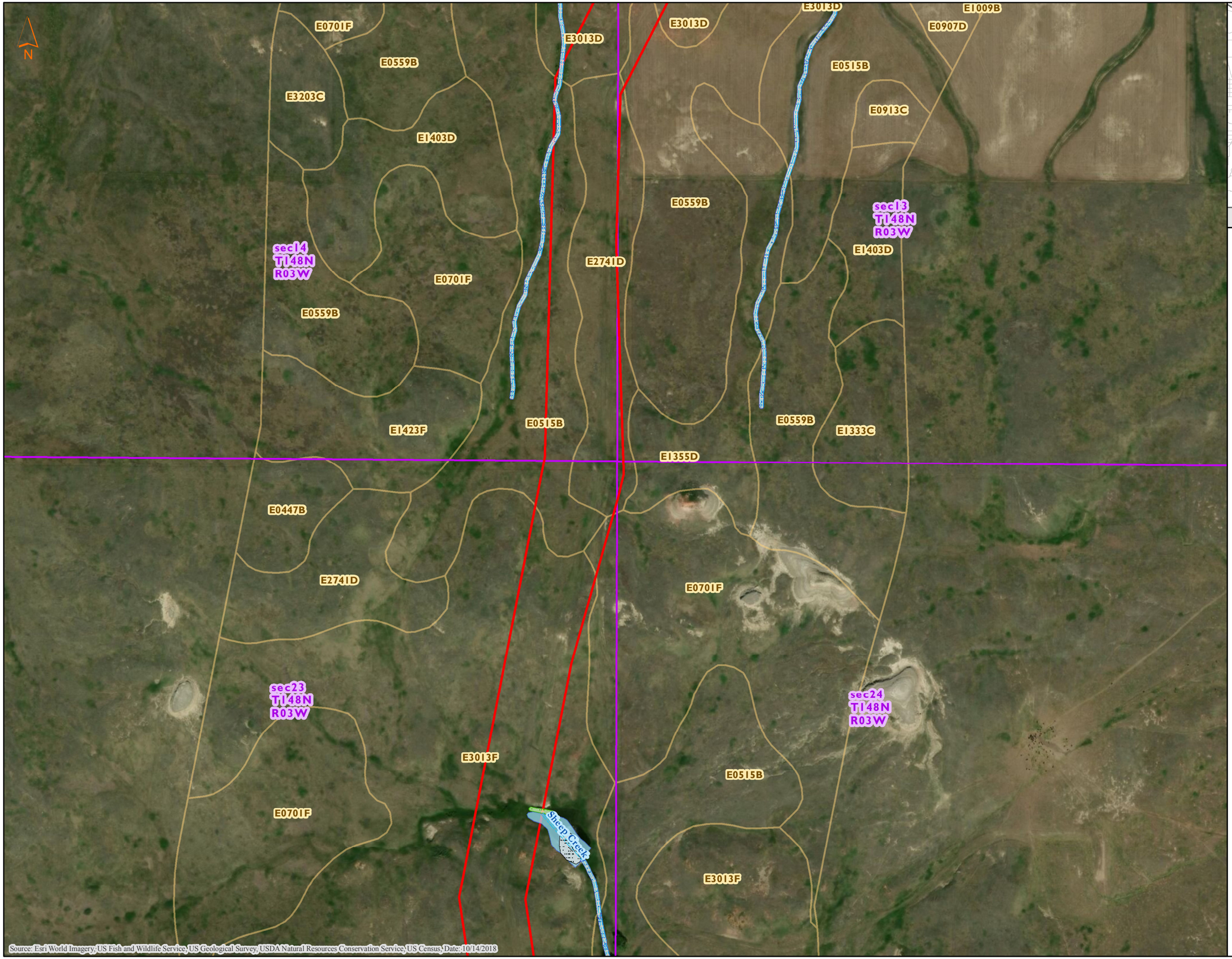
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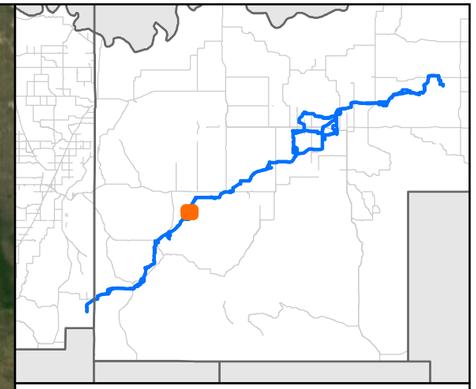
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 23 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





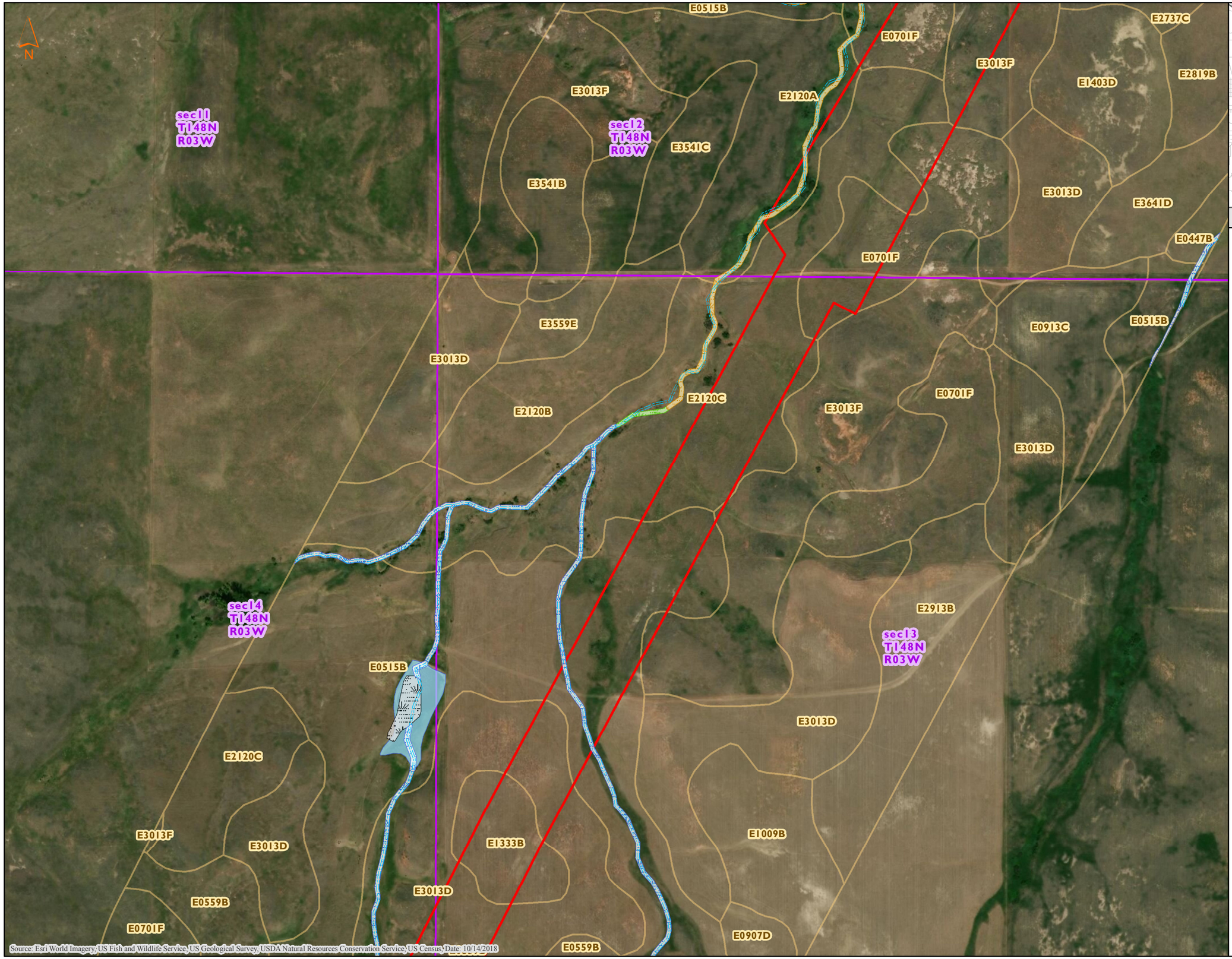
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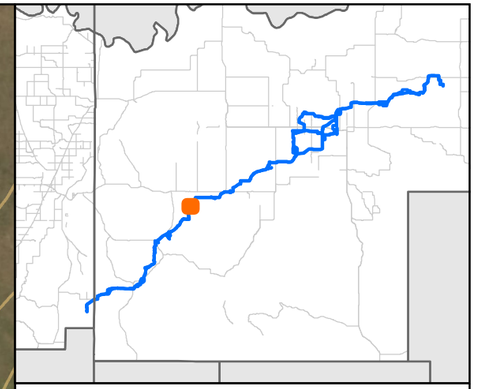
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 24 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





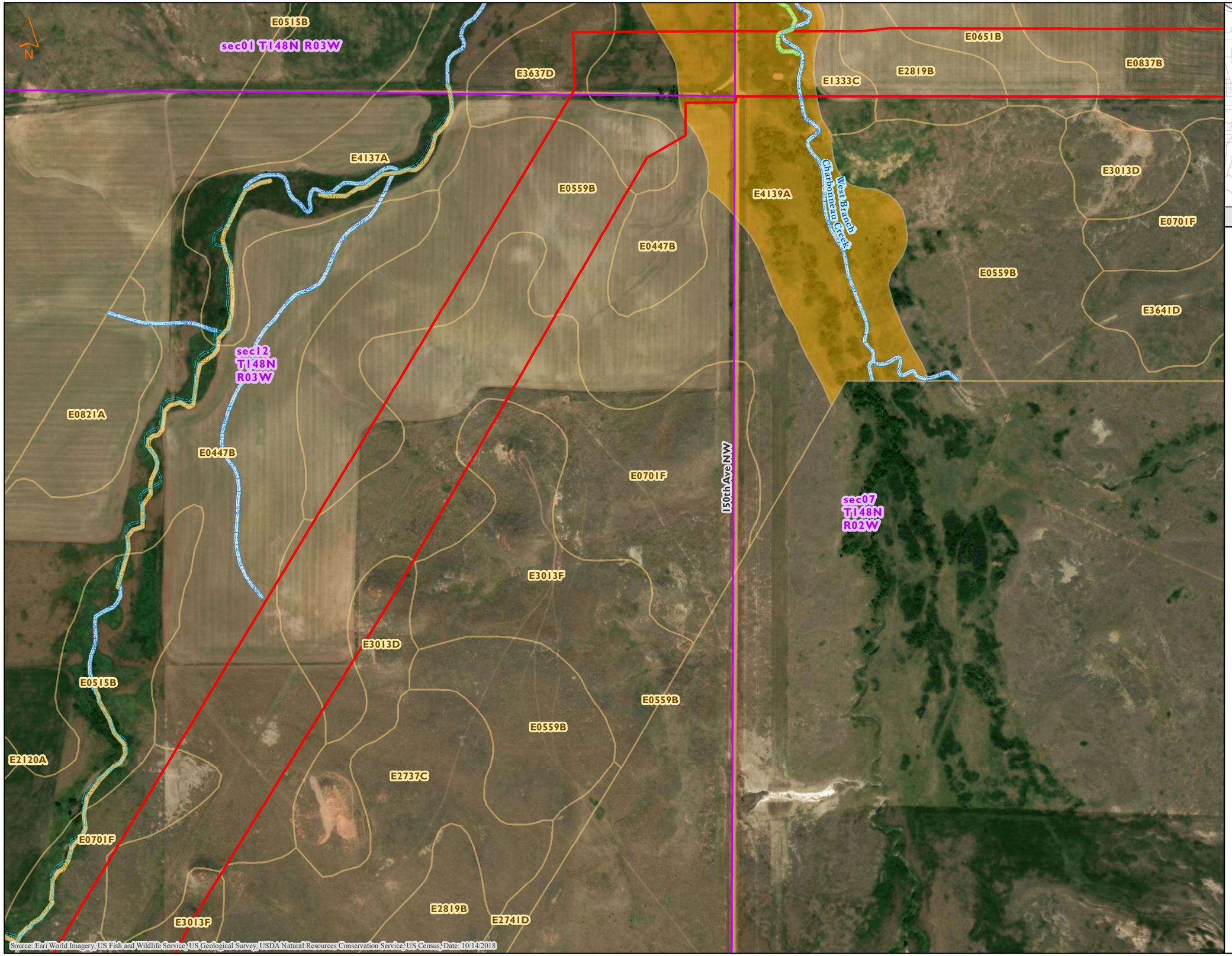
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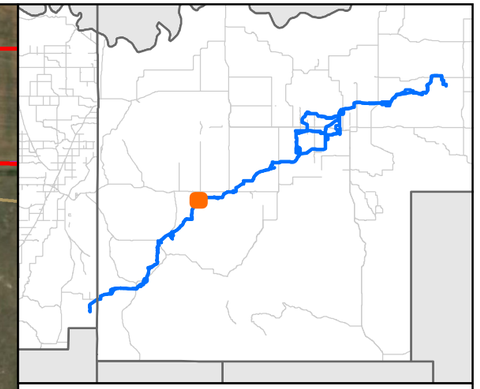
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 25 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





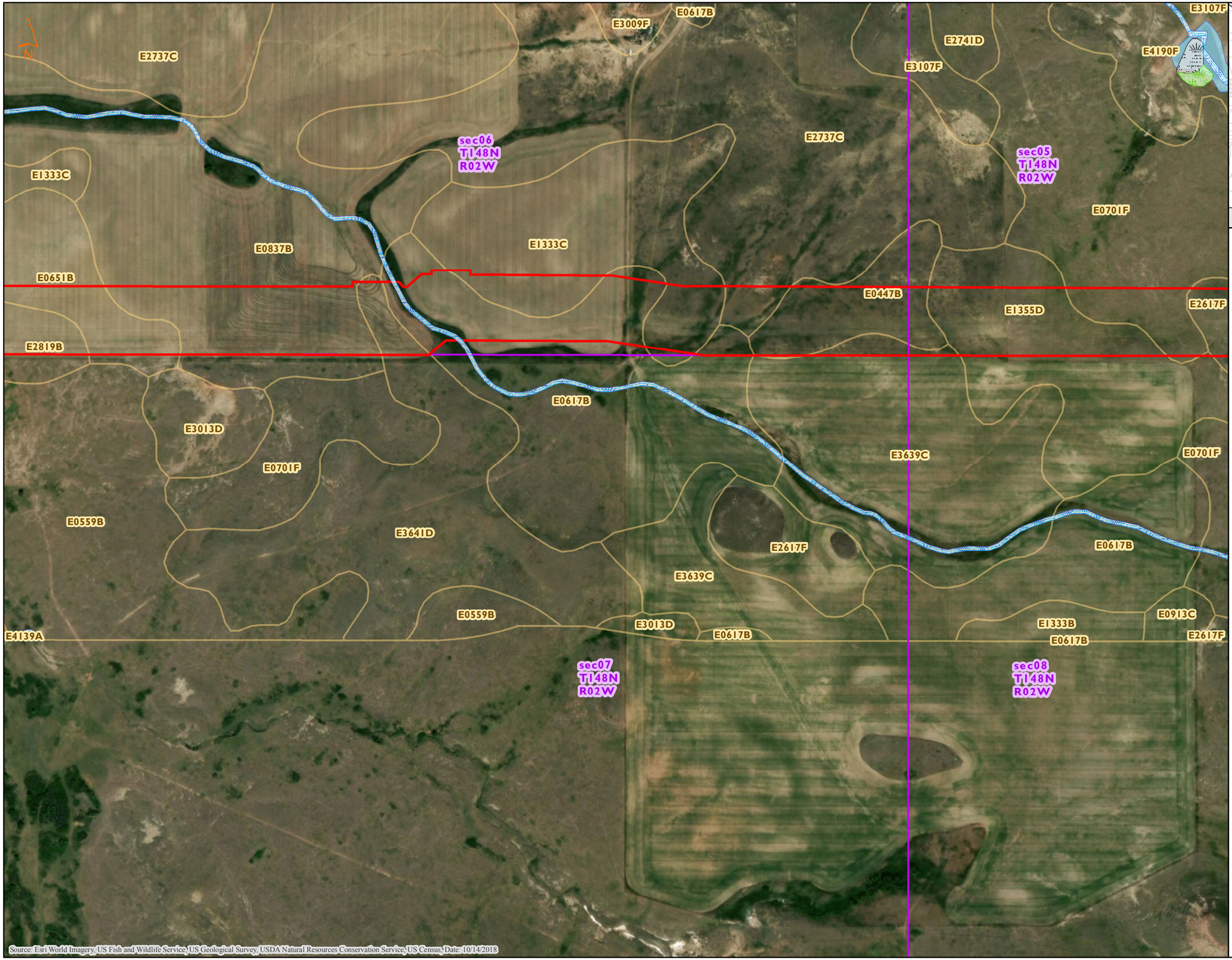
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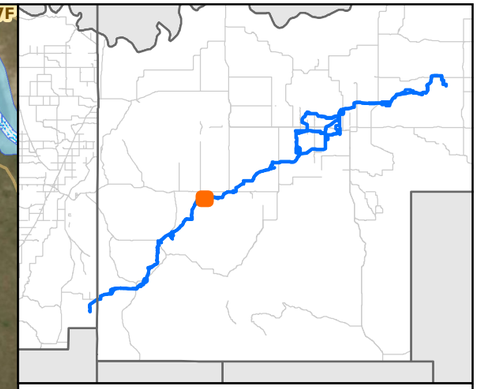
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 26 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





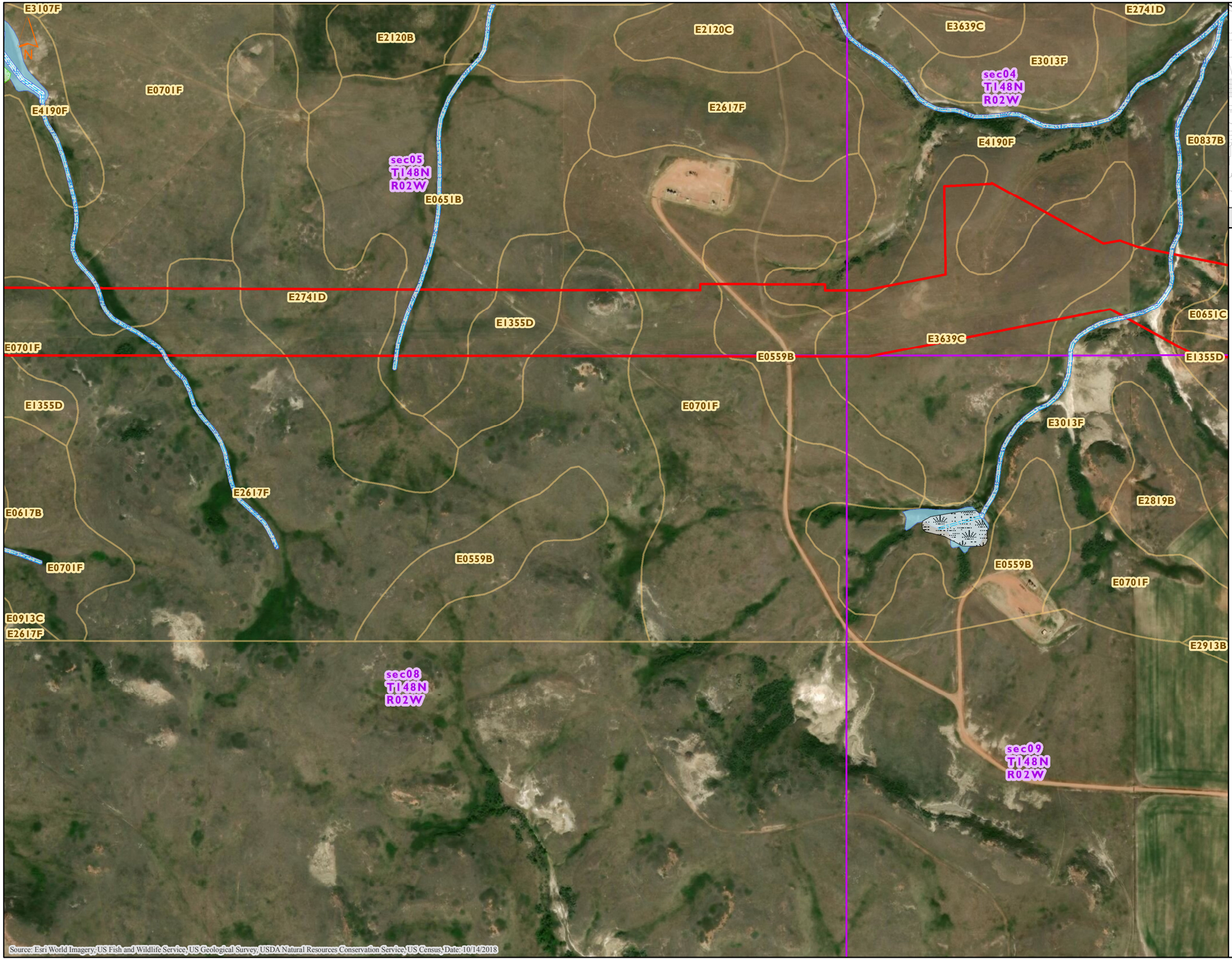
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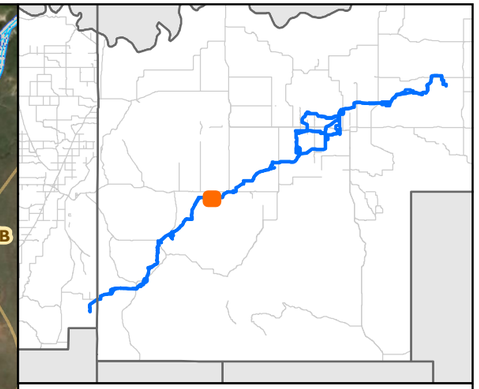
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 27 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





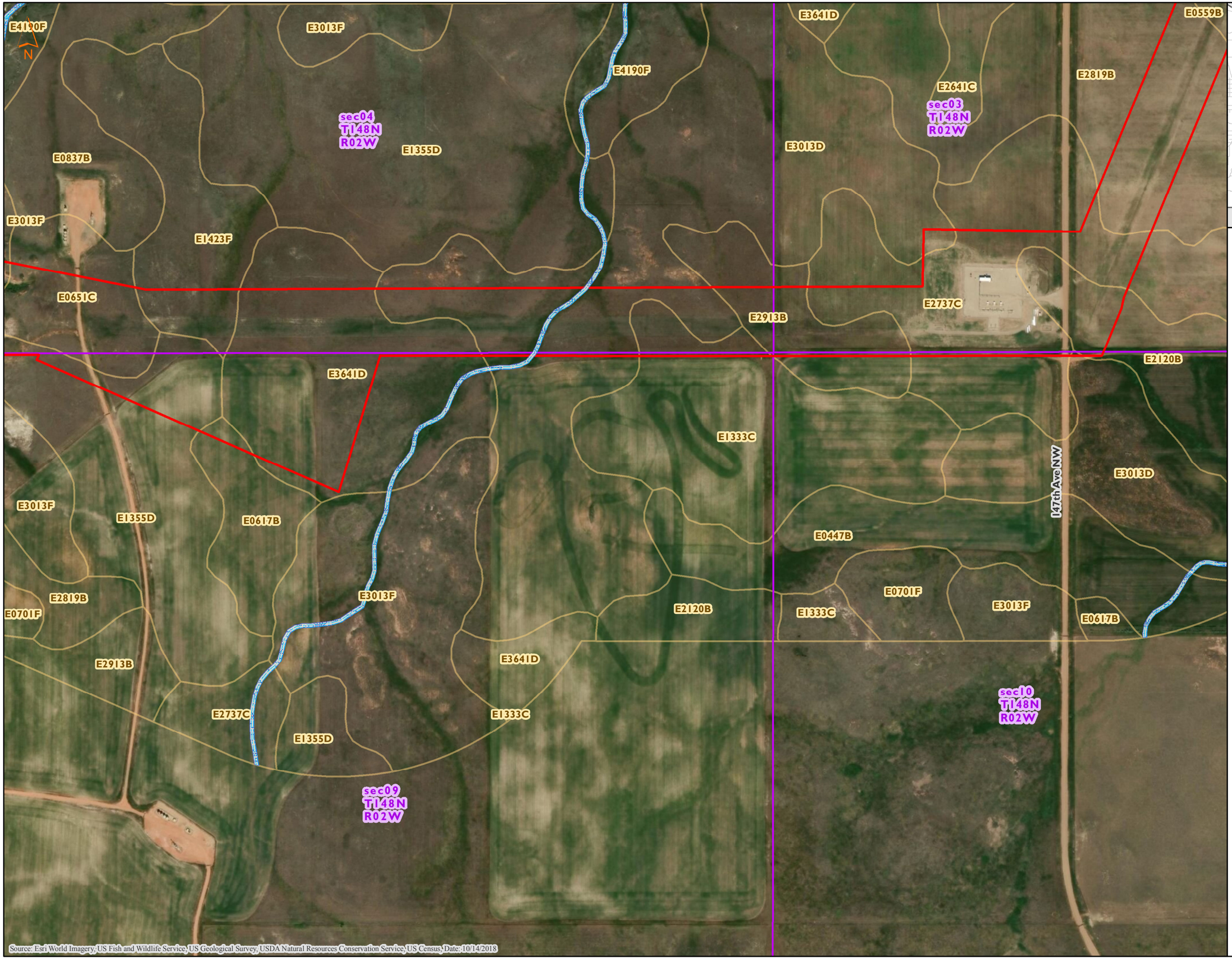
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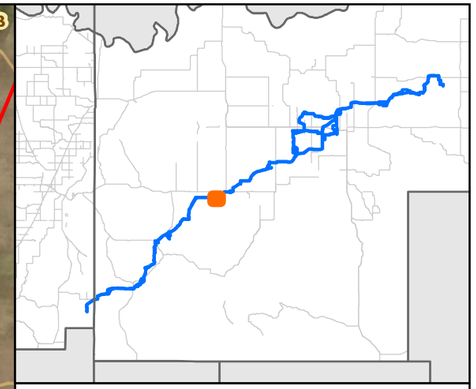
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 28 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





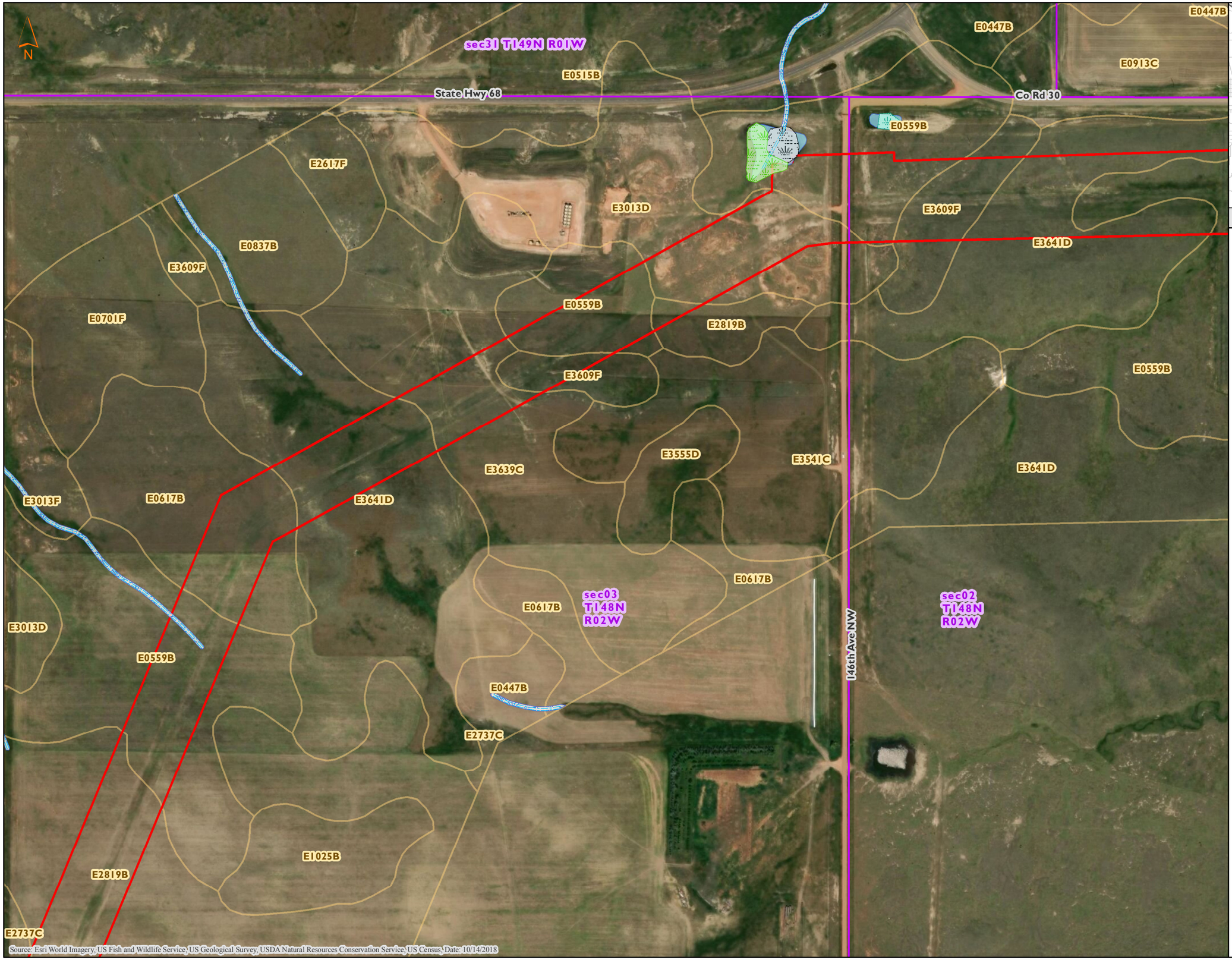
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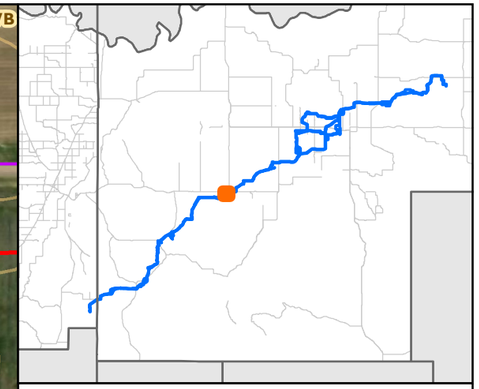
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 29 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





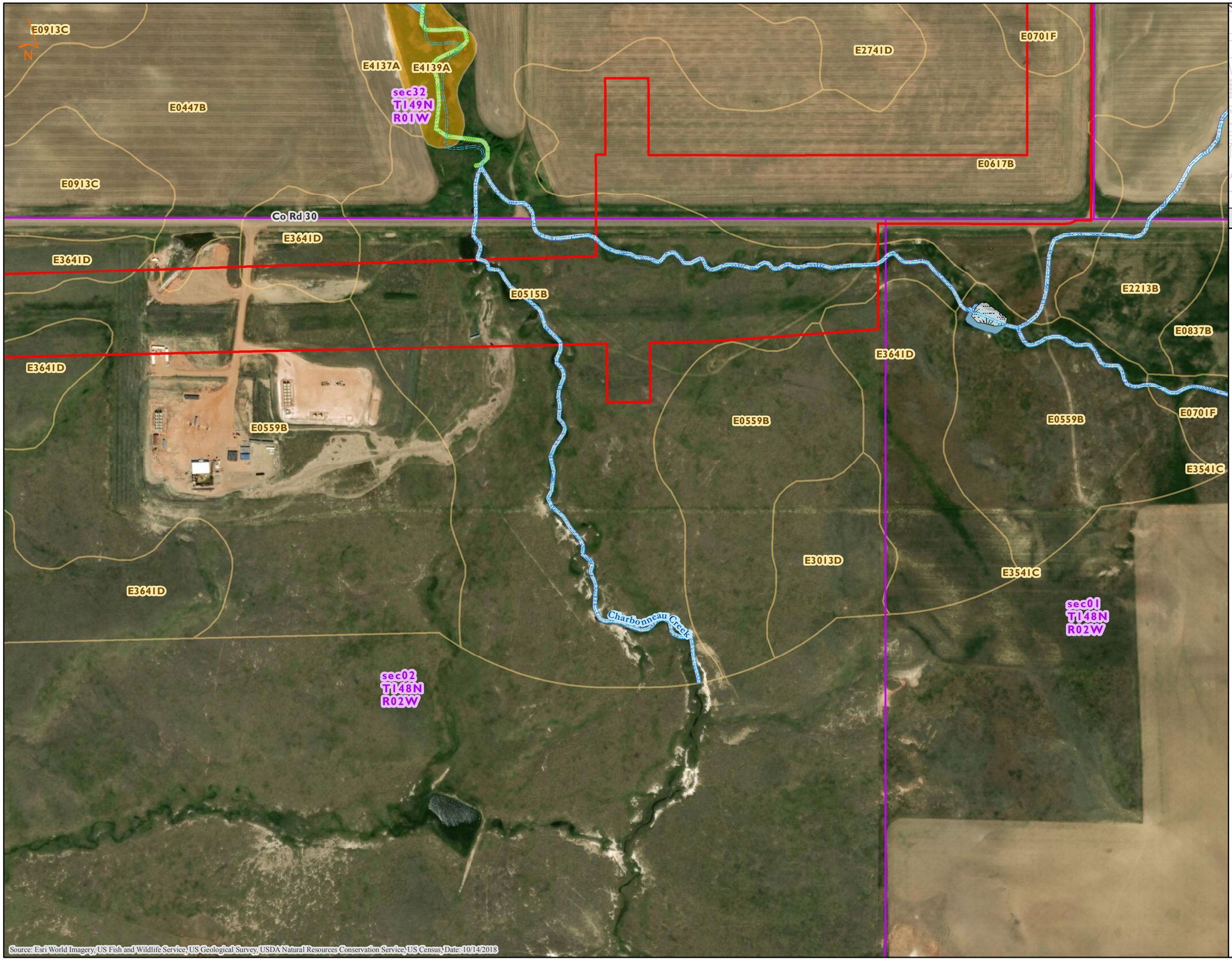
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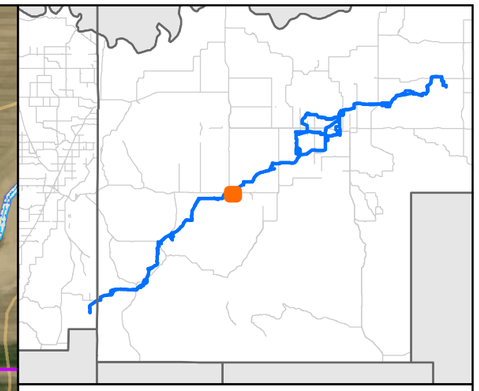
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 30 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





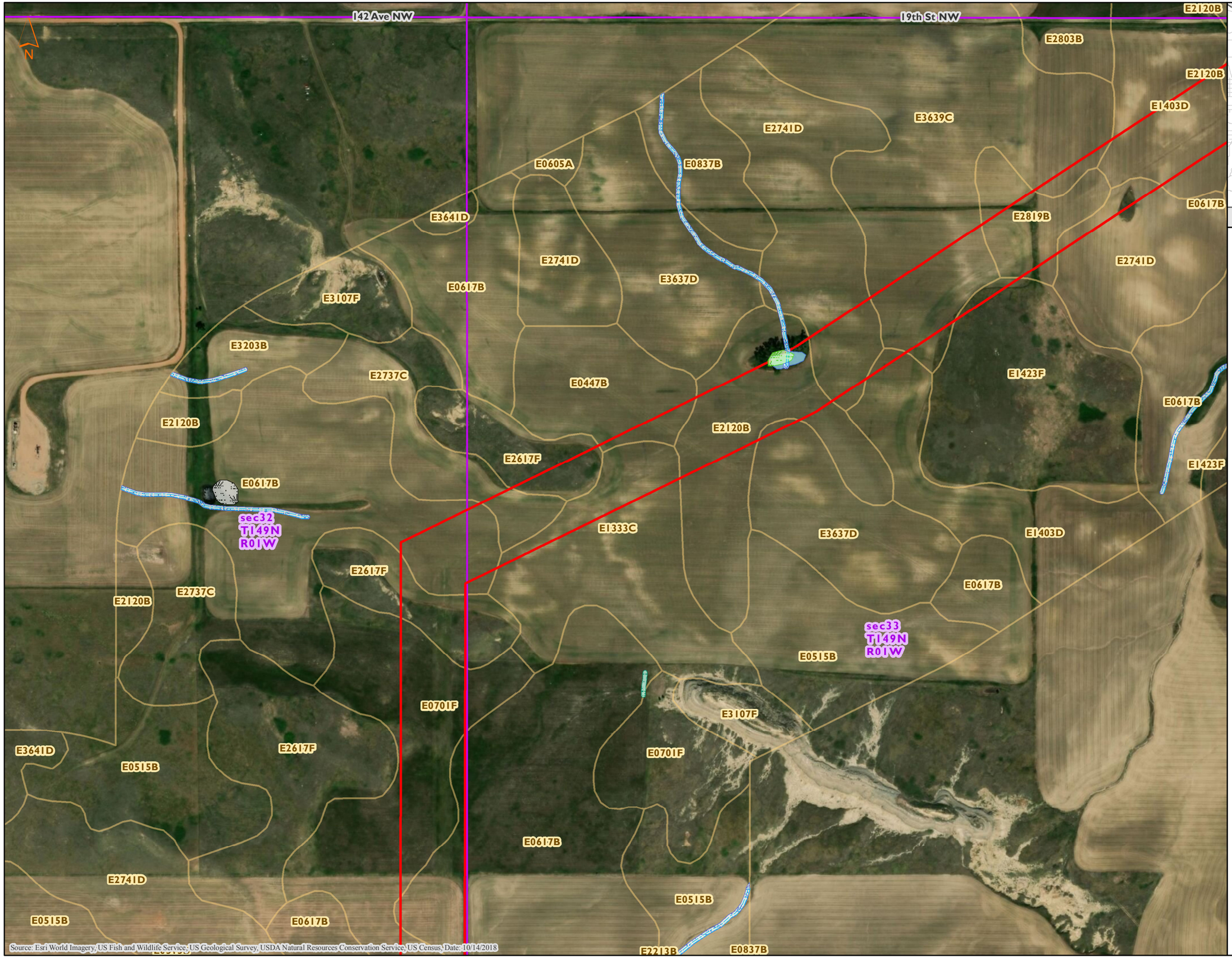
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NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

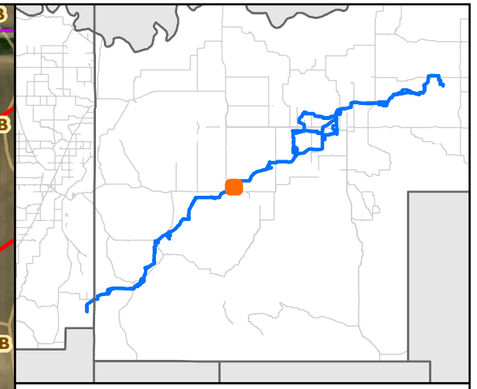
Figure 31 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet



Source: Esri World Imagery, US Fish and Wildlife Service, US Geological Survey, USDA Natural Resources Conservation Service, US Census, Date: 10/14/2018



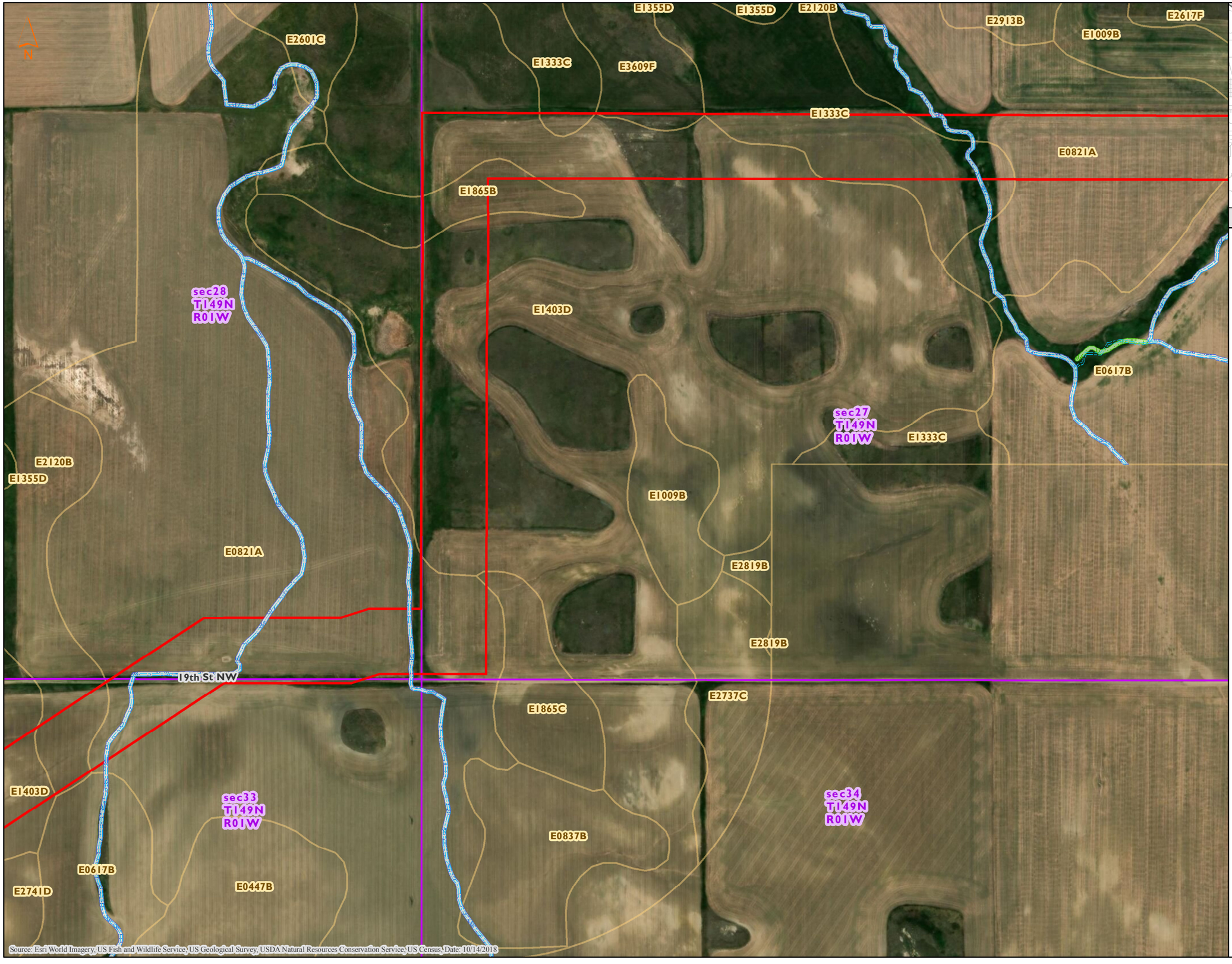
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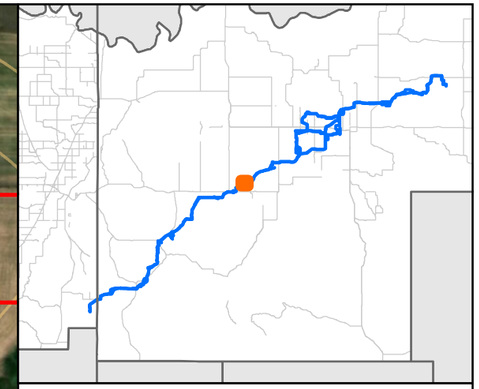
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 32 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





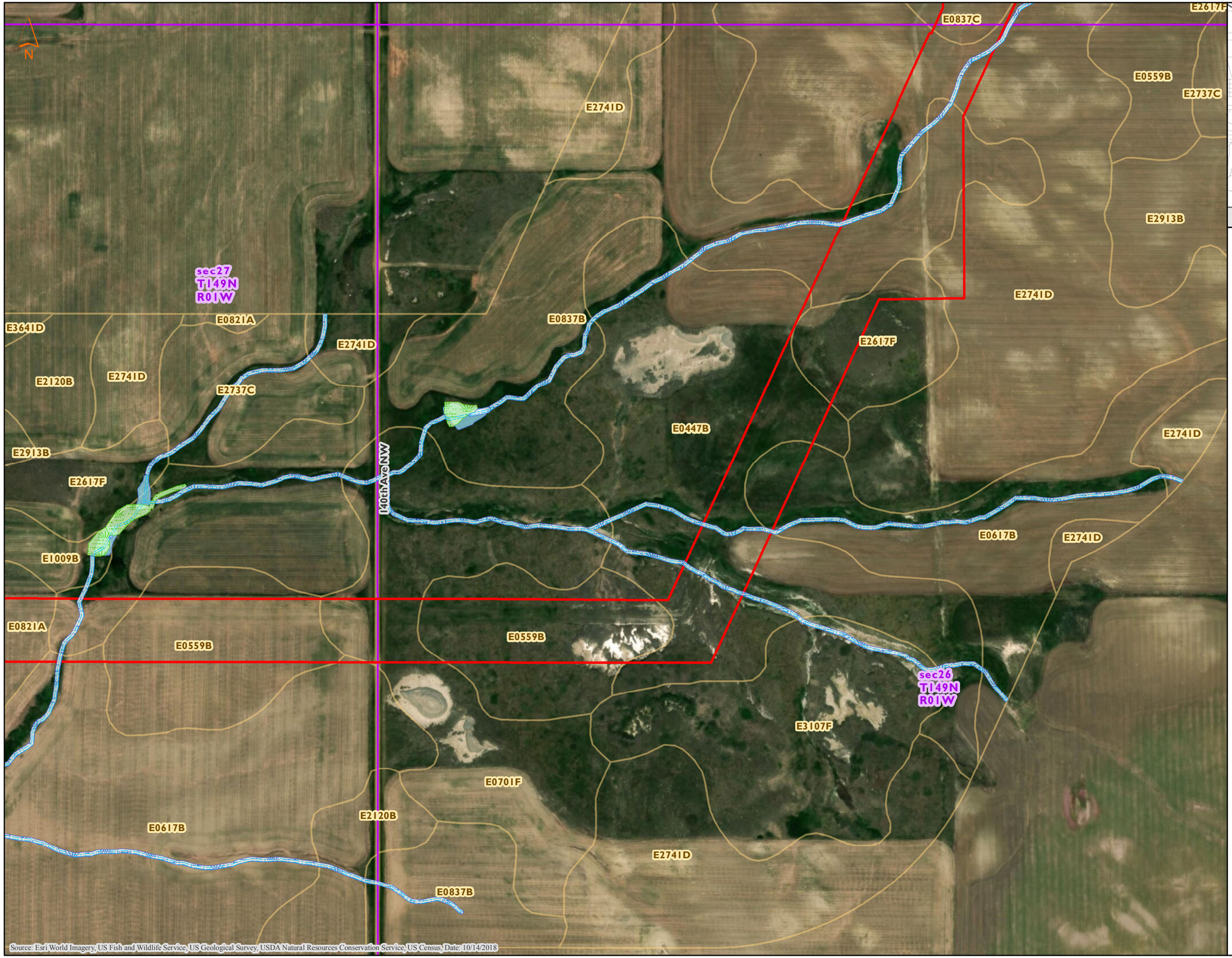
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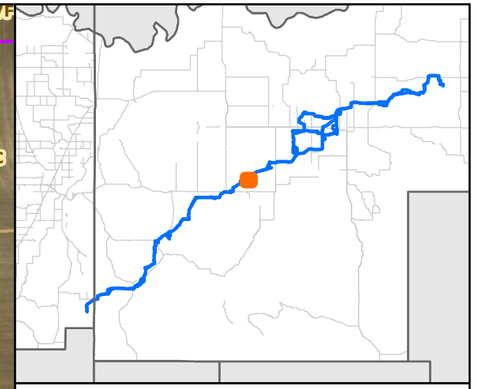
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 33 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet





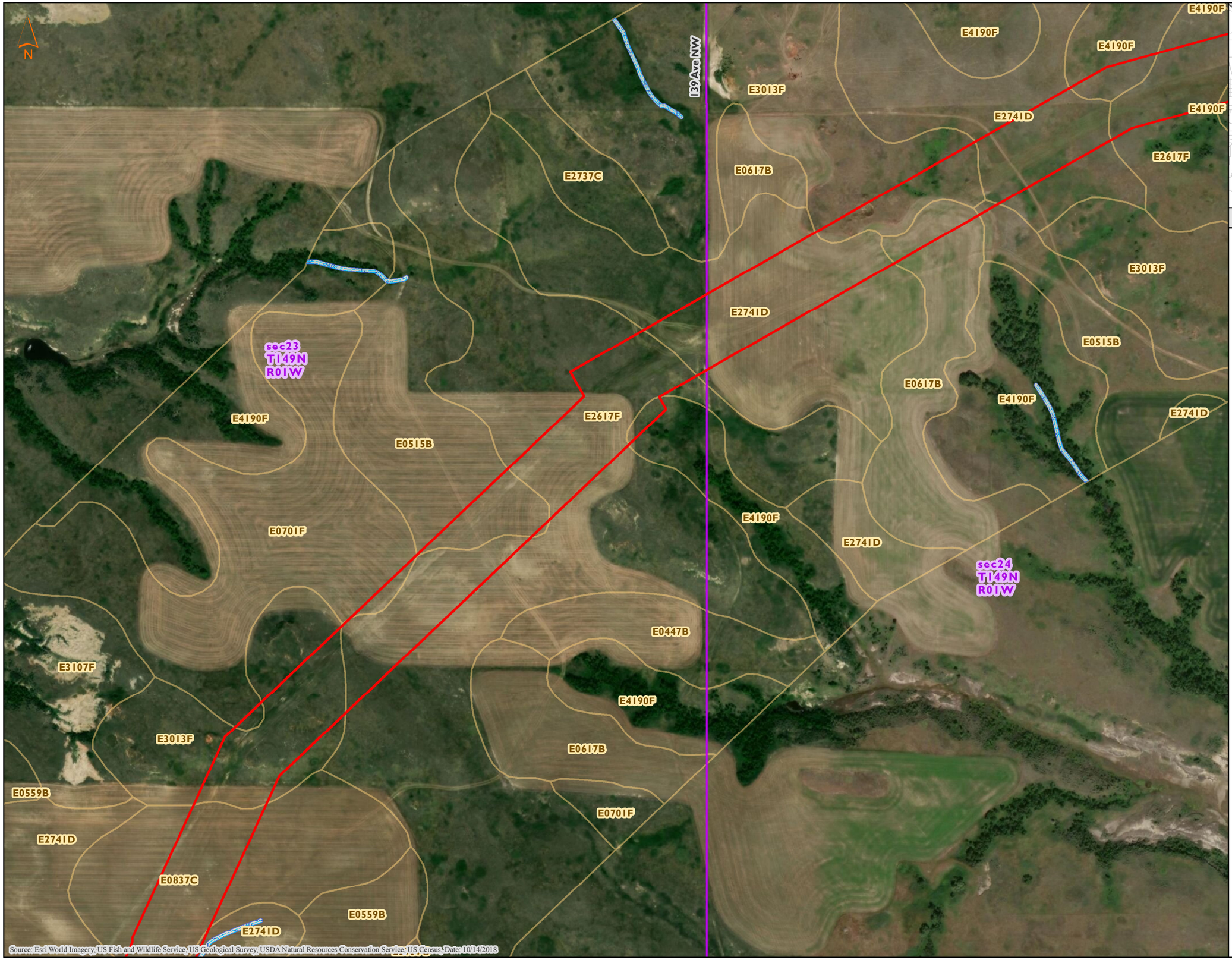
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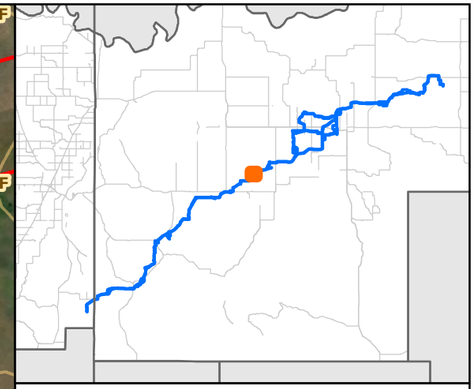
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 34 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





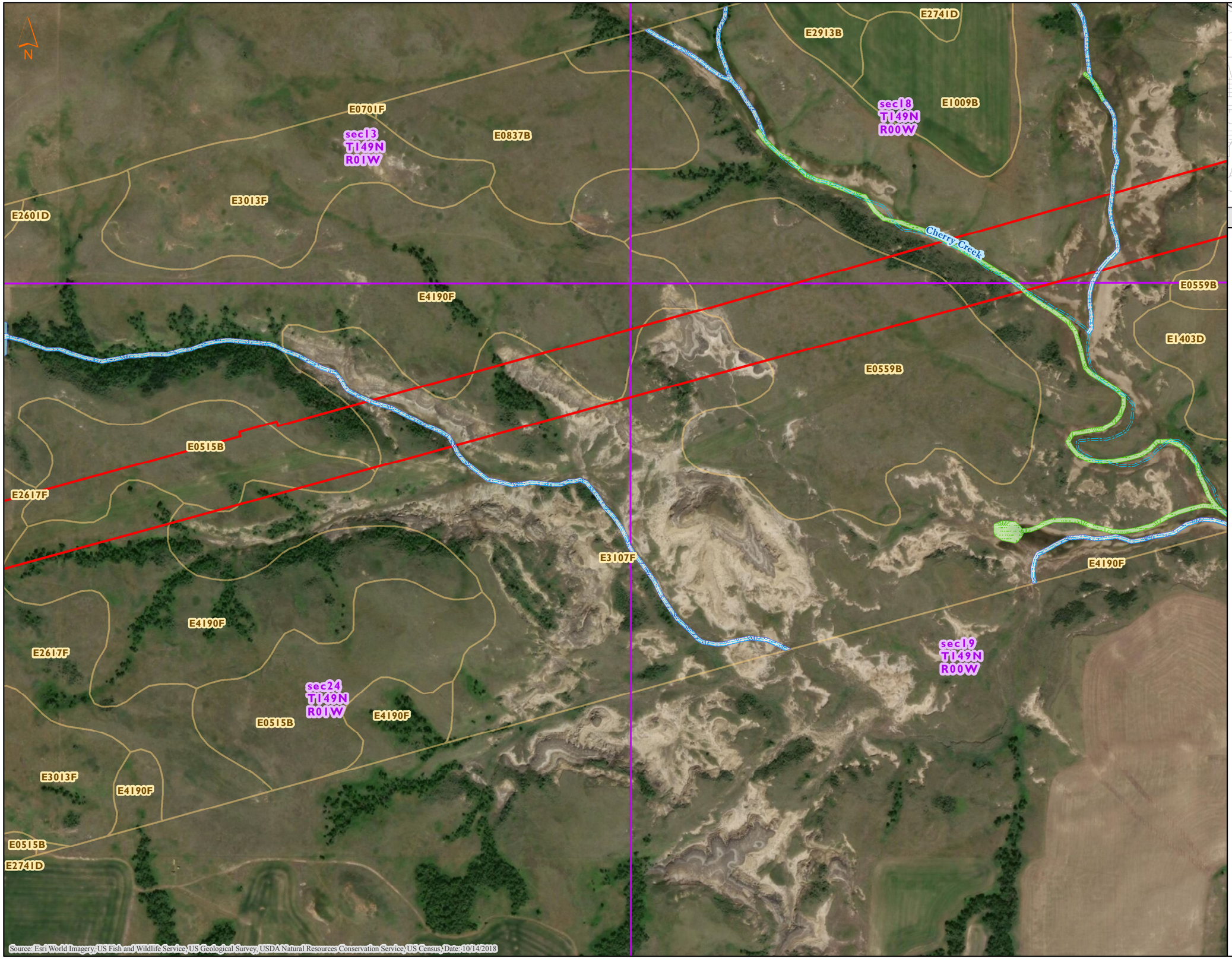
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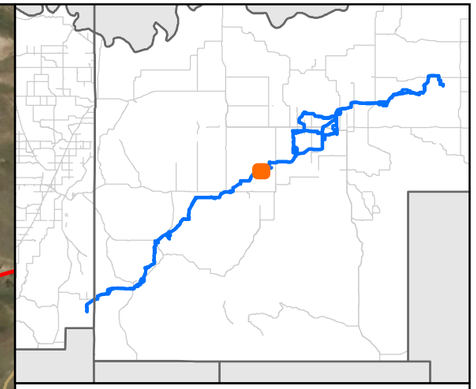
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 35 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





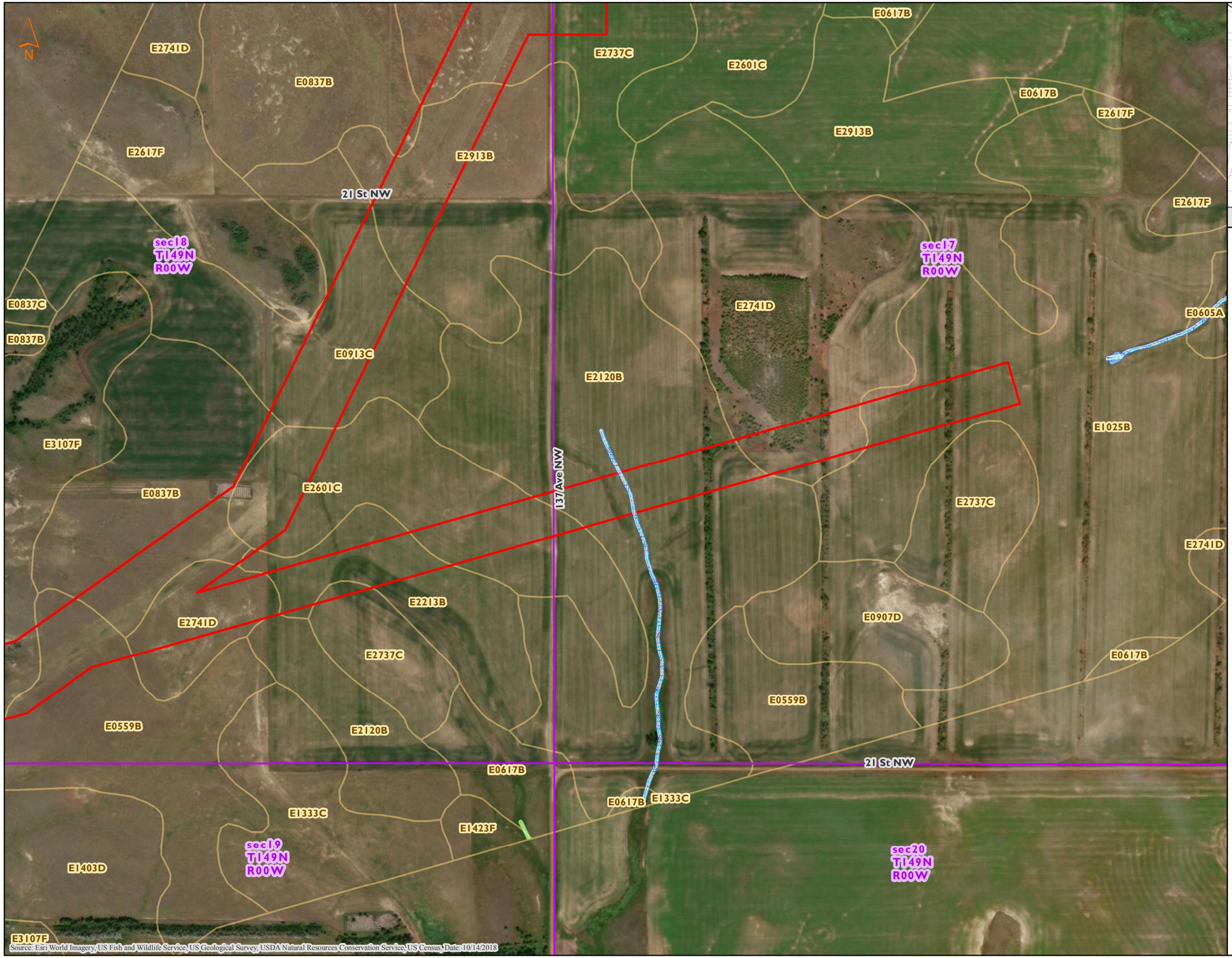
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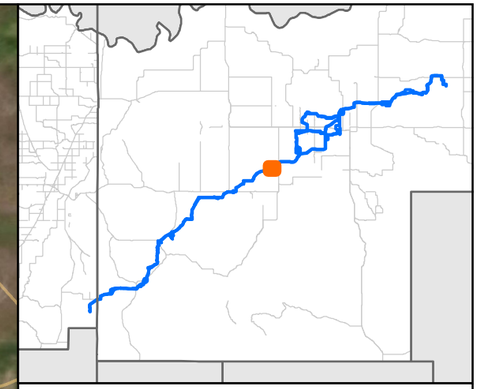
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 36 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet





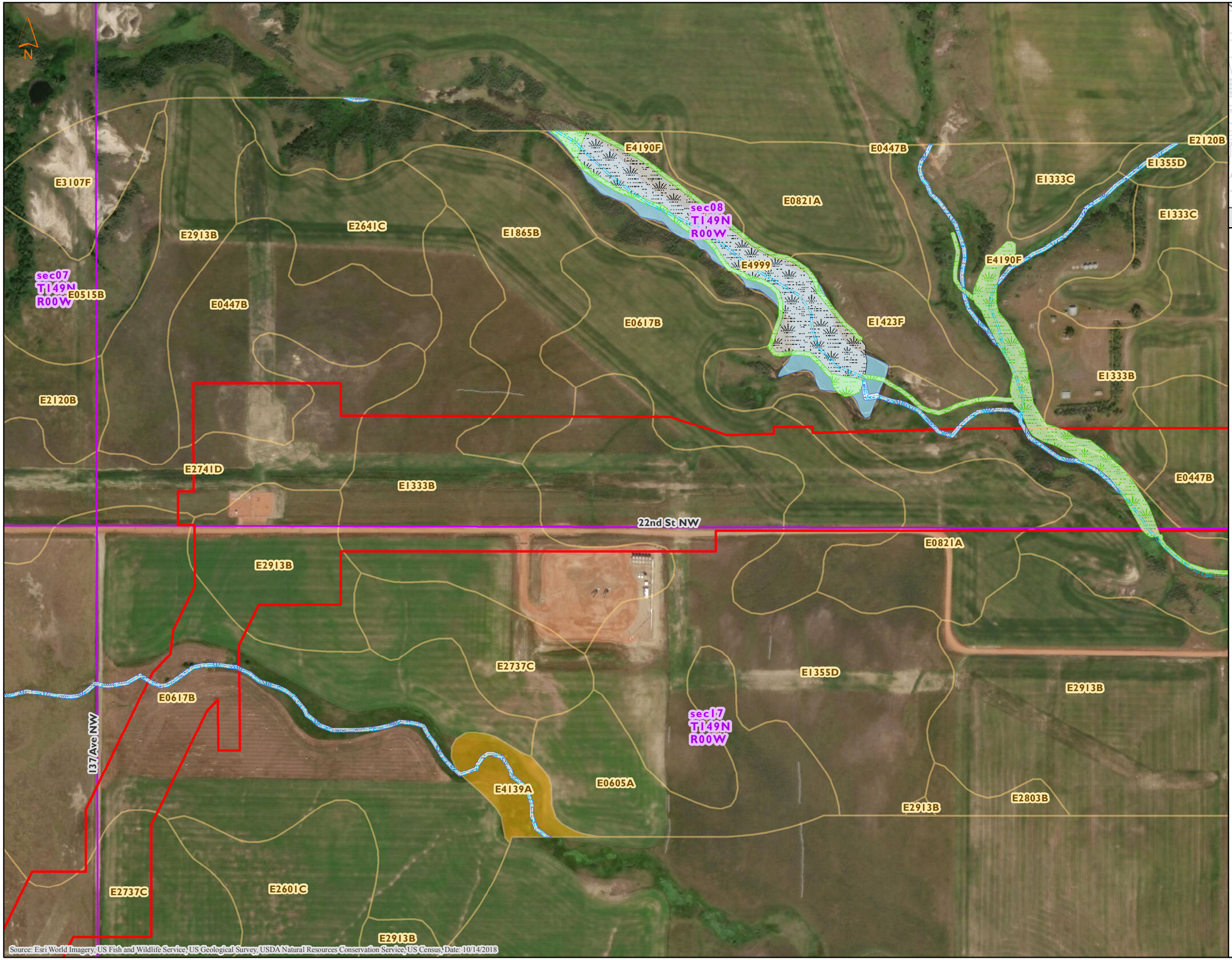
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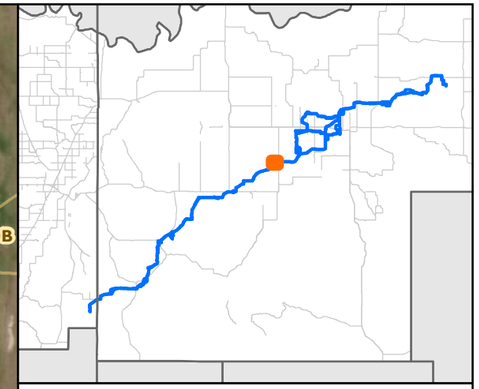
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 37 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





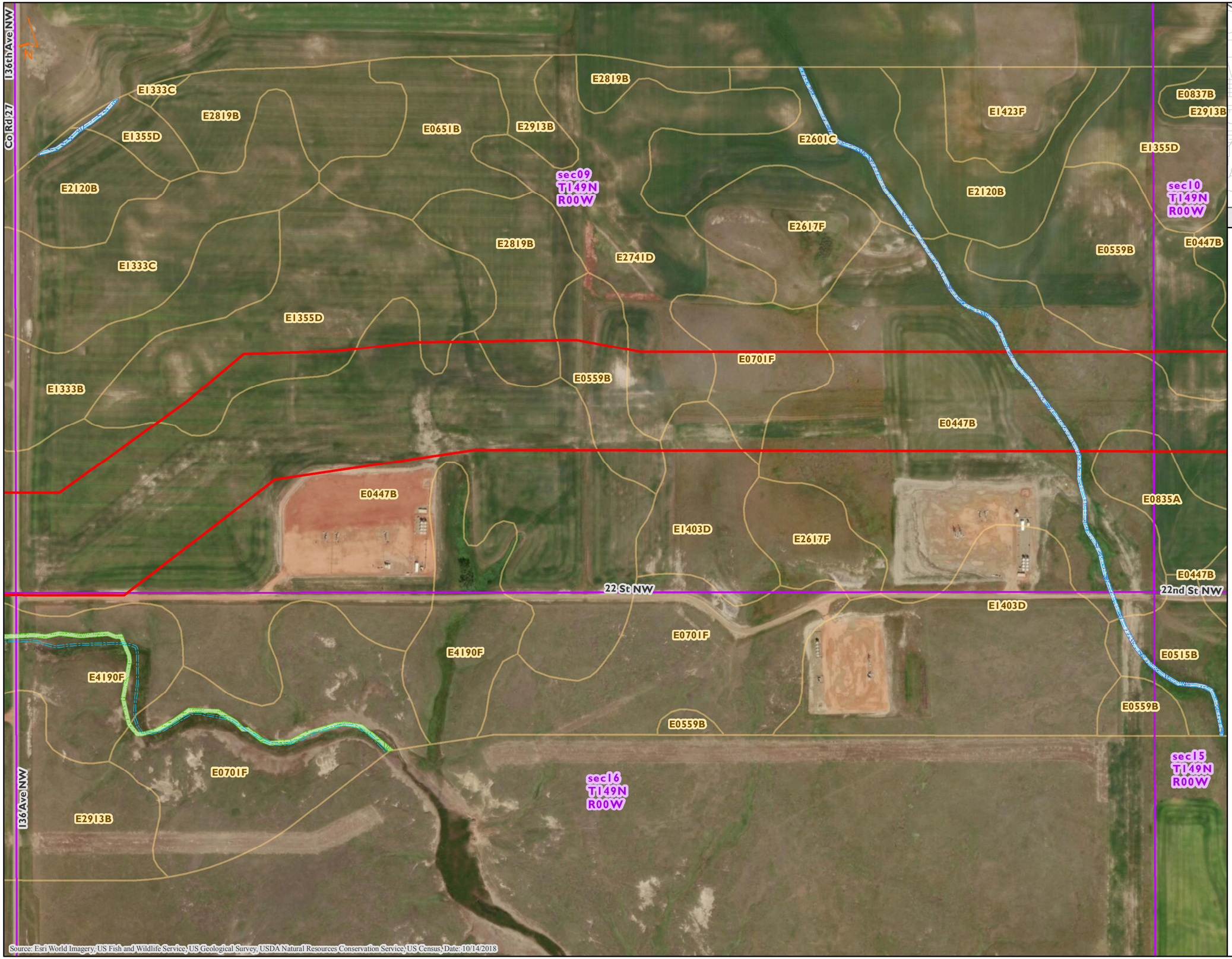
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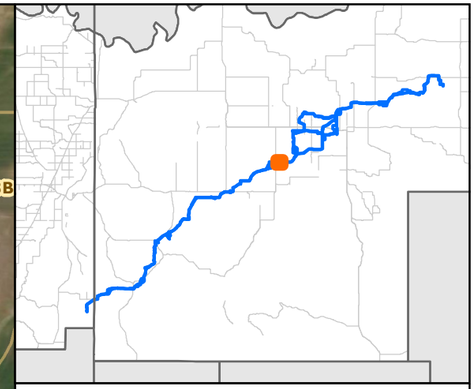
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 38 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





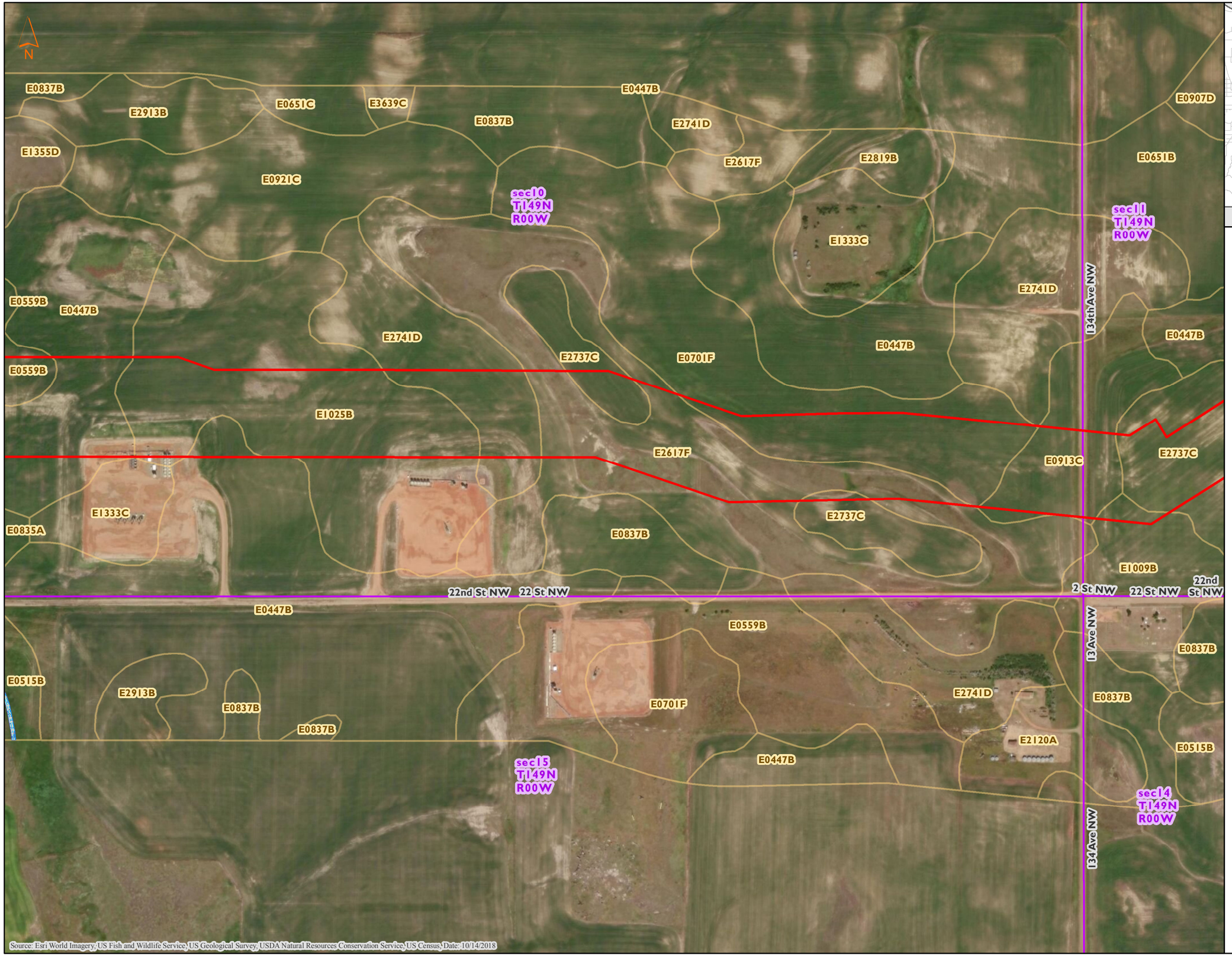
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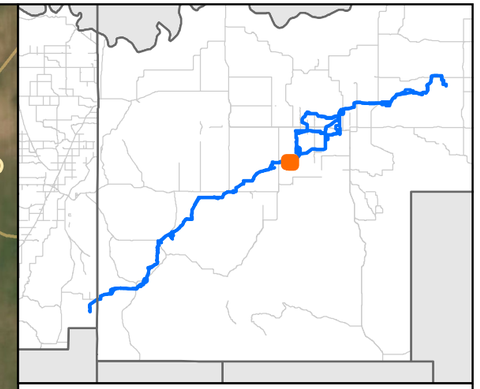
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 39 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





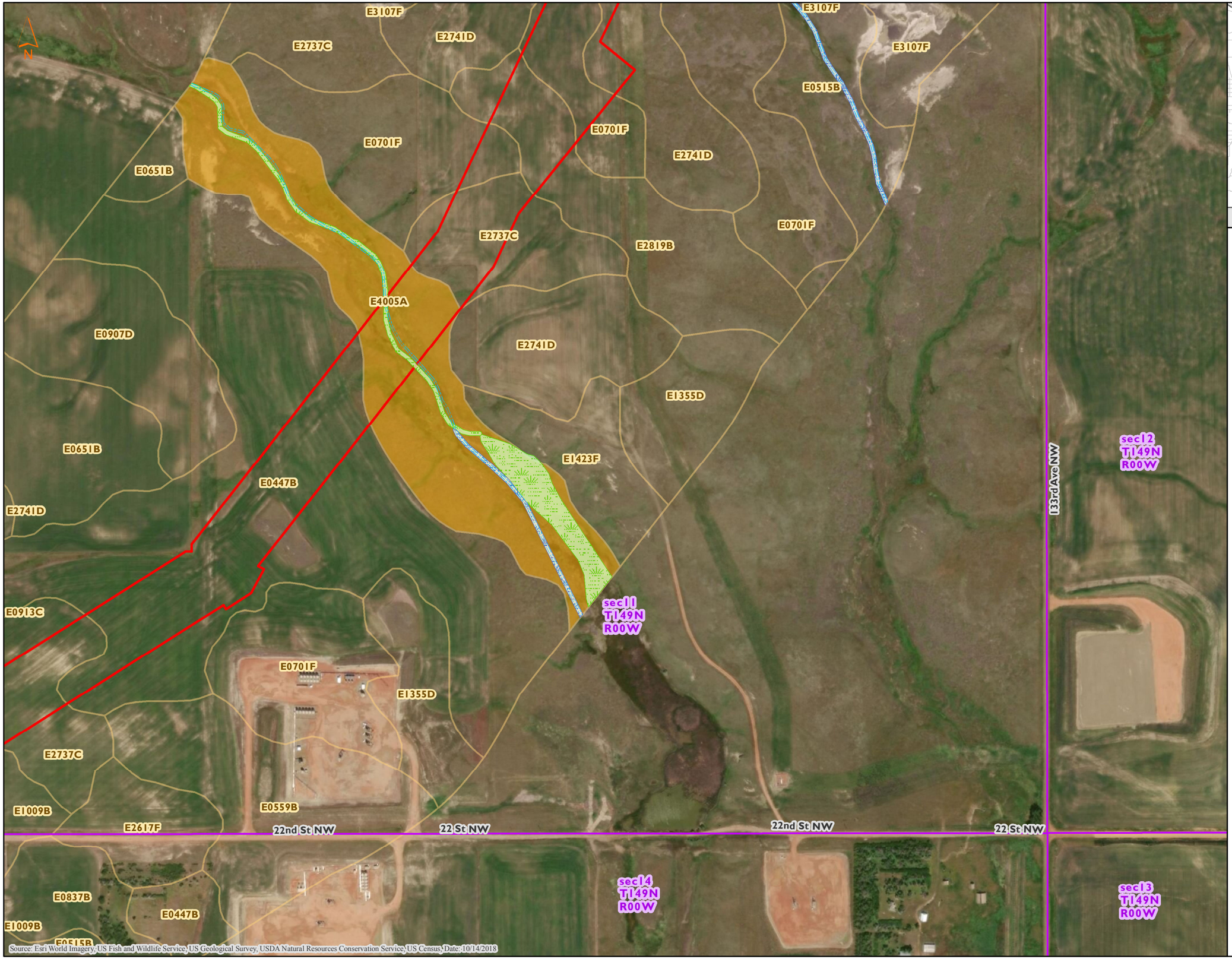
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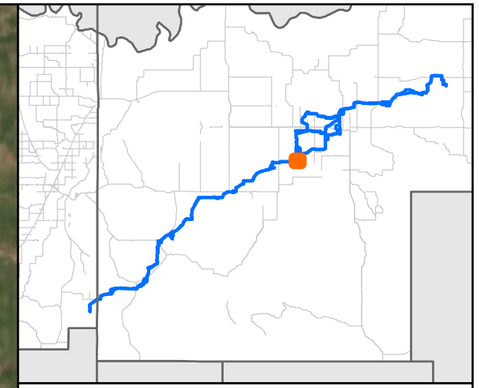
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 40 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





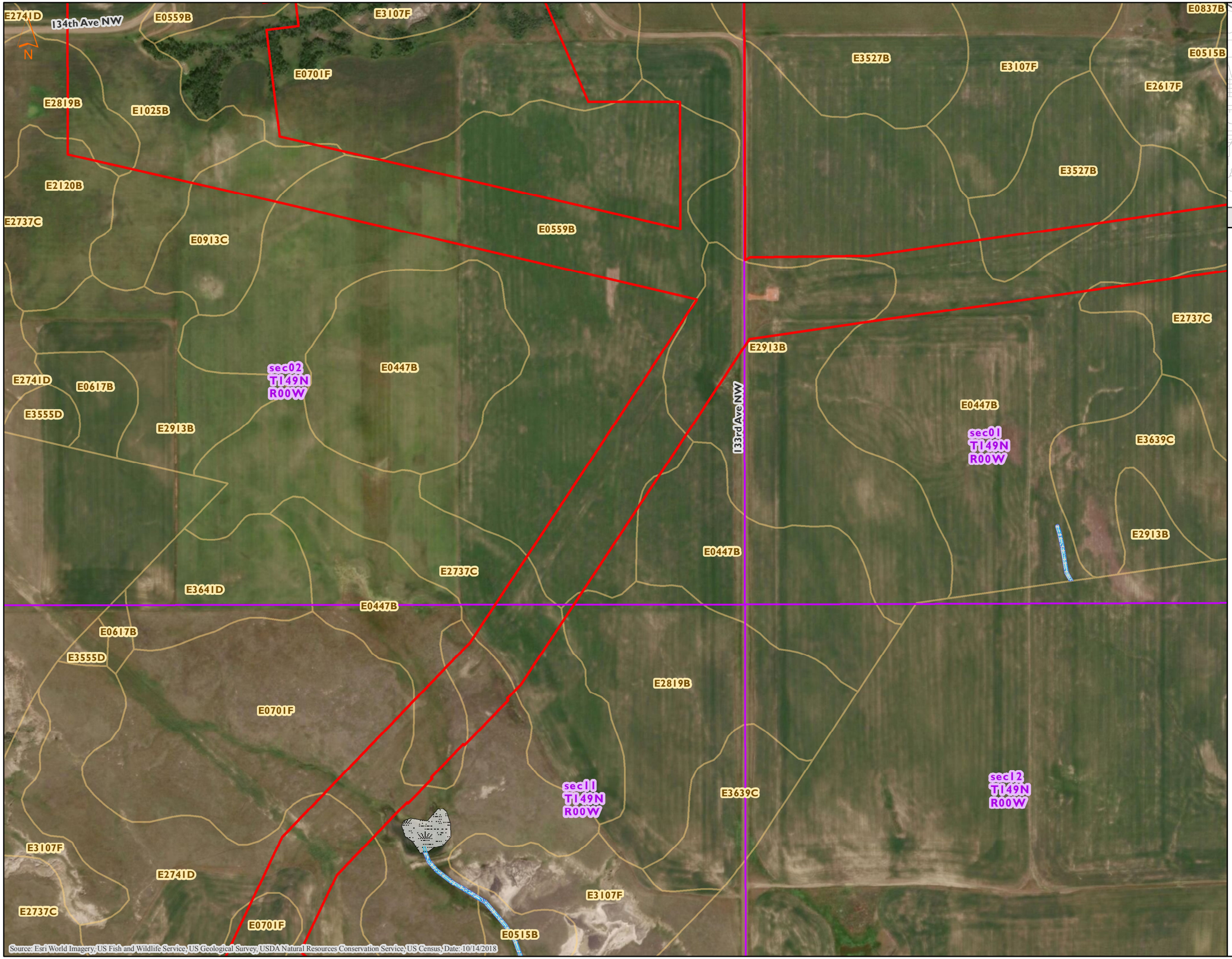
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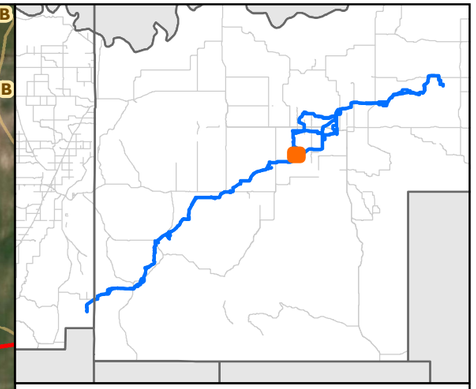
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 41 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





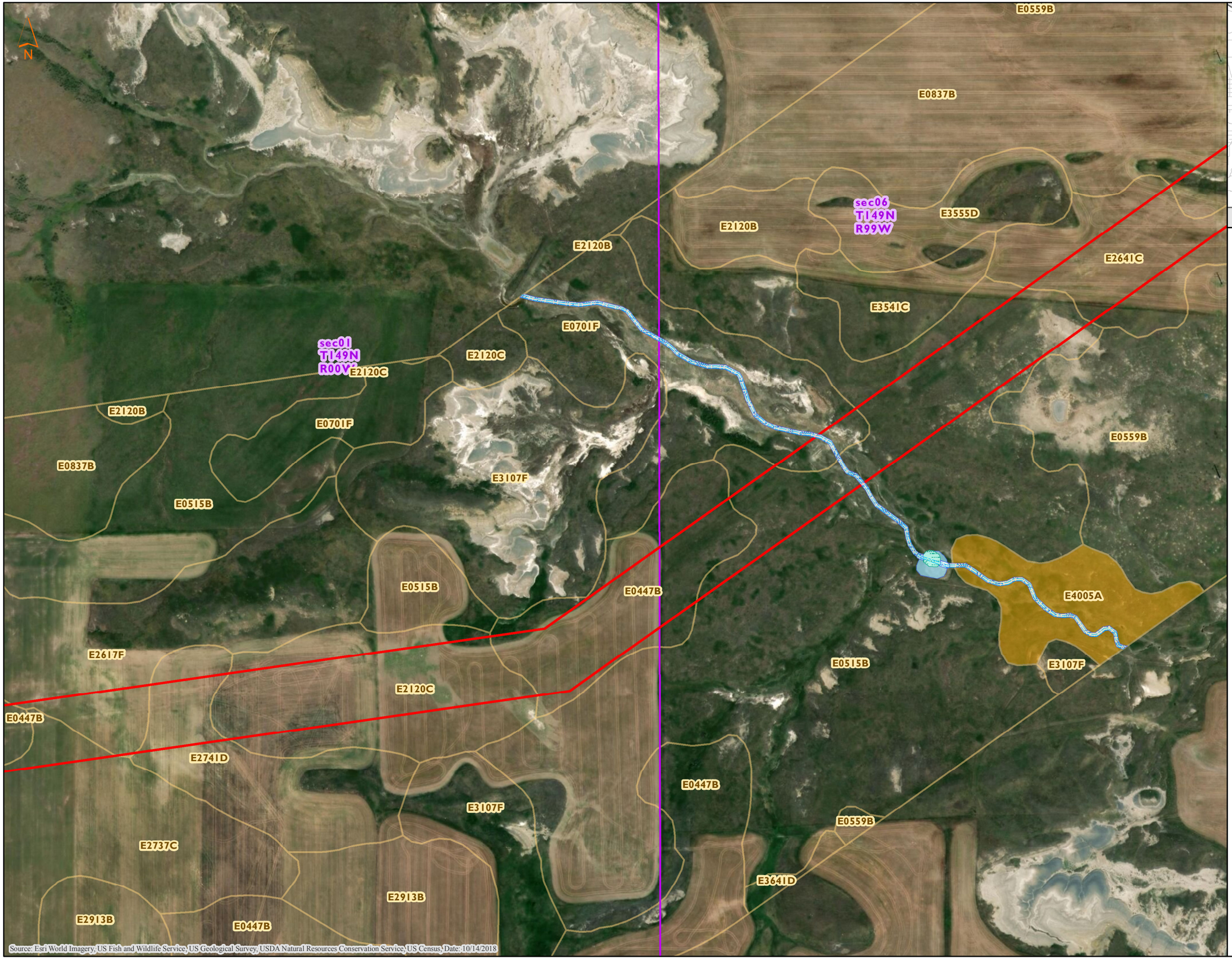
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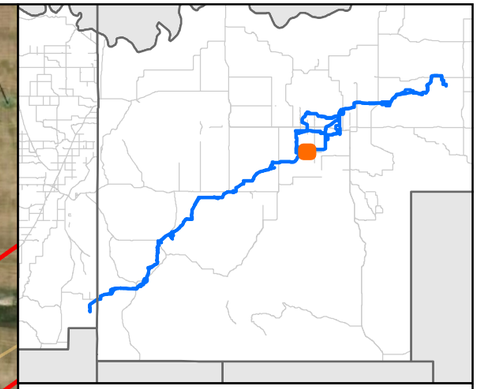
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 42 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





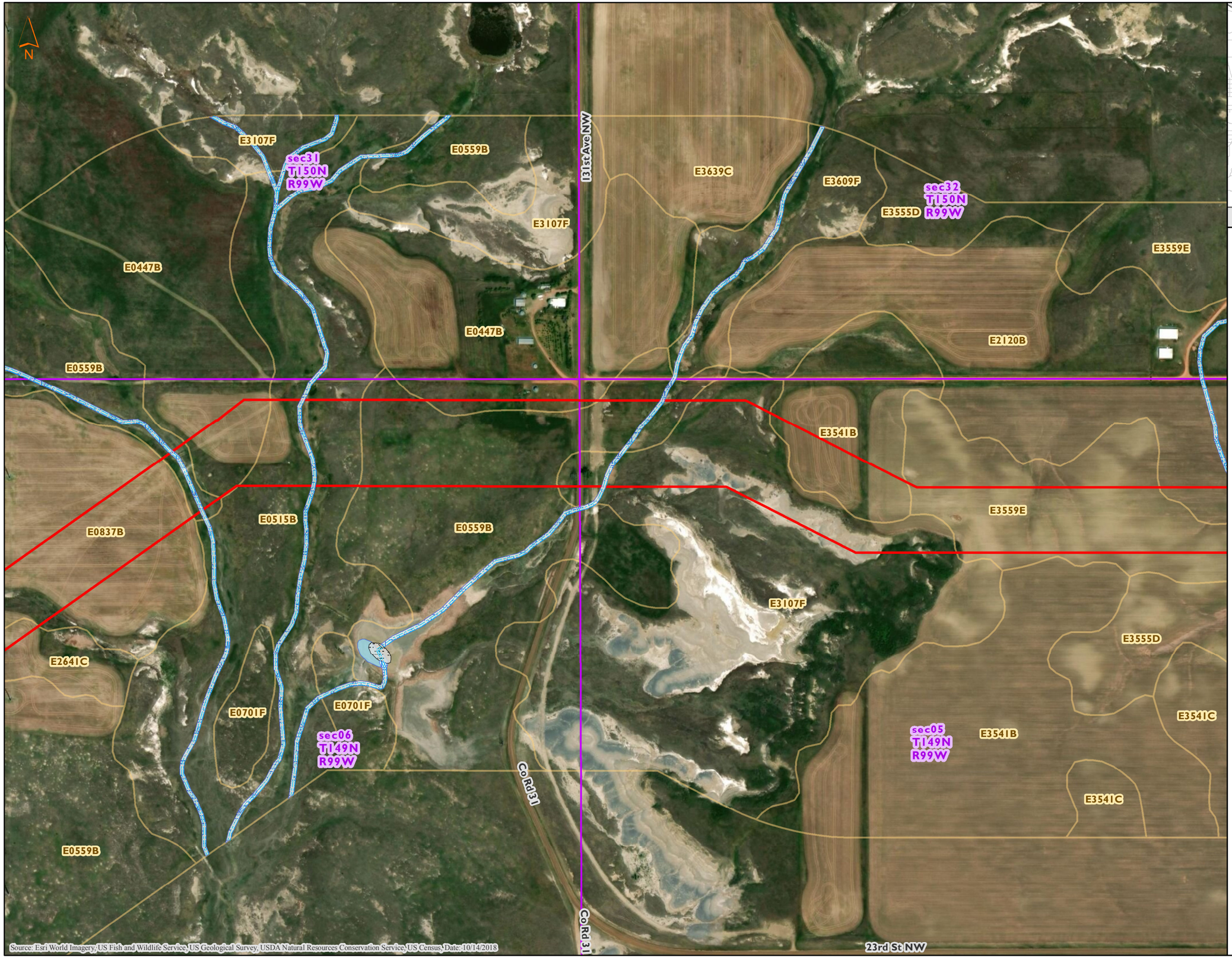
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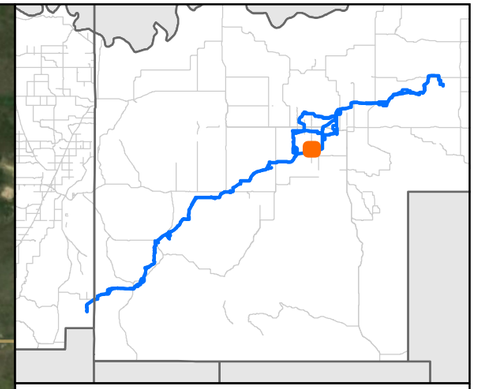
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 43 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





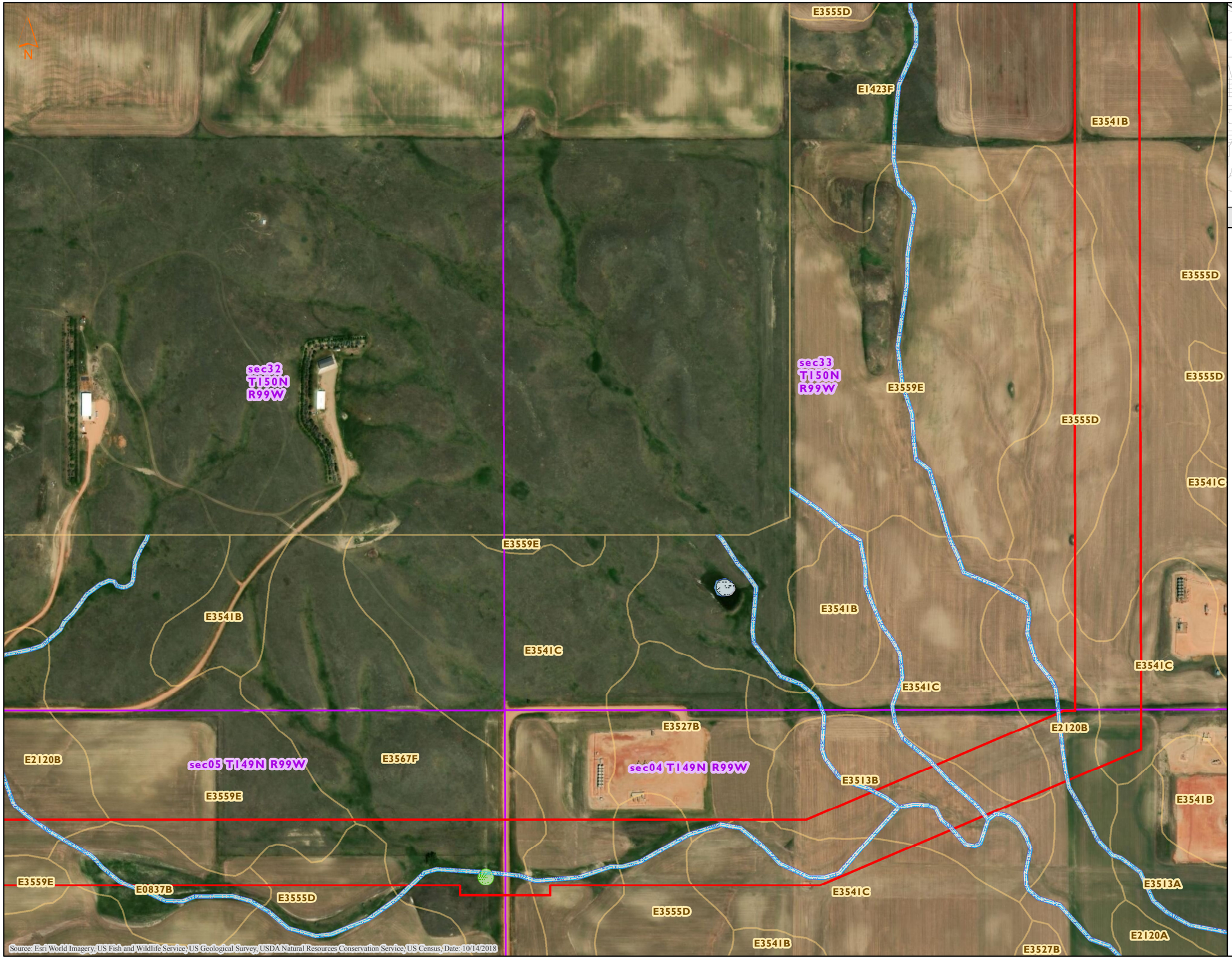
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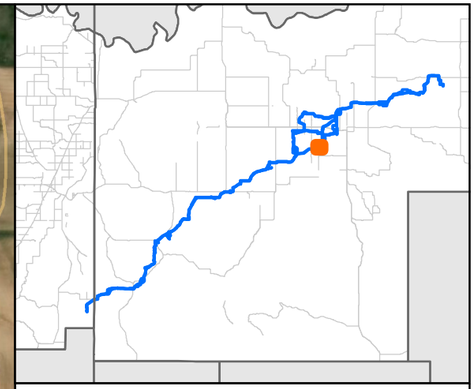
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 44 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





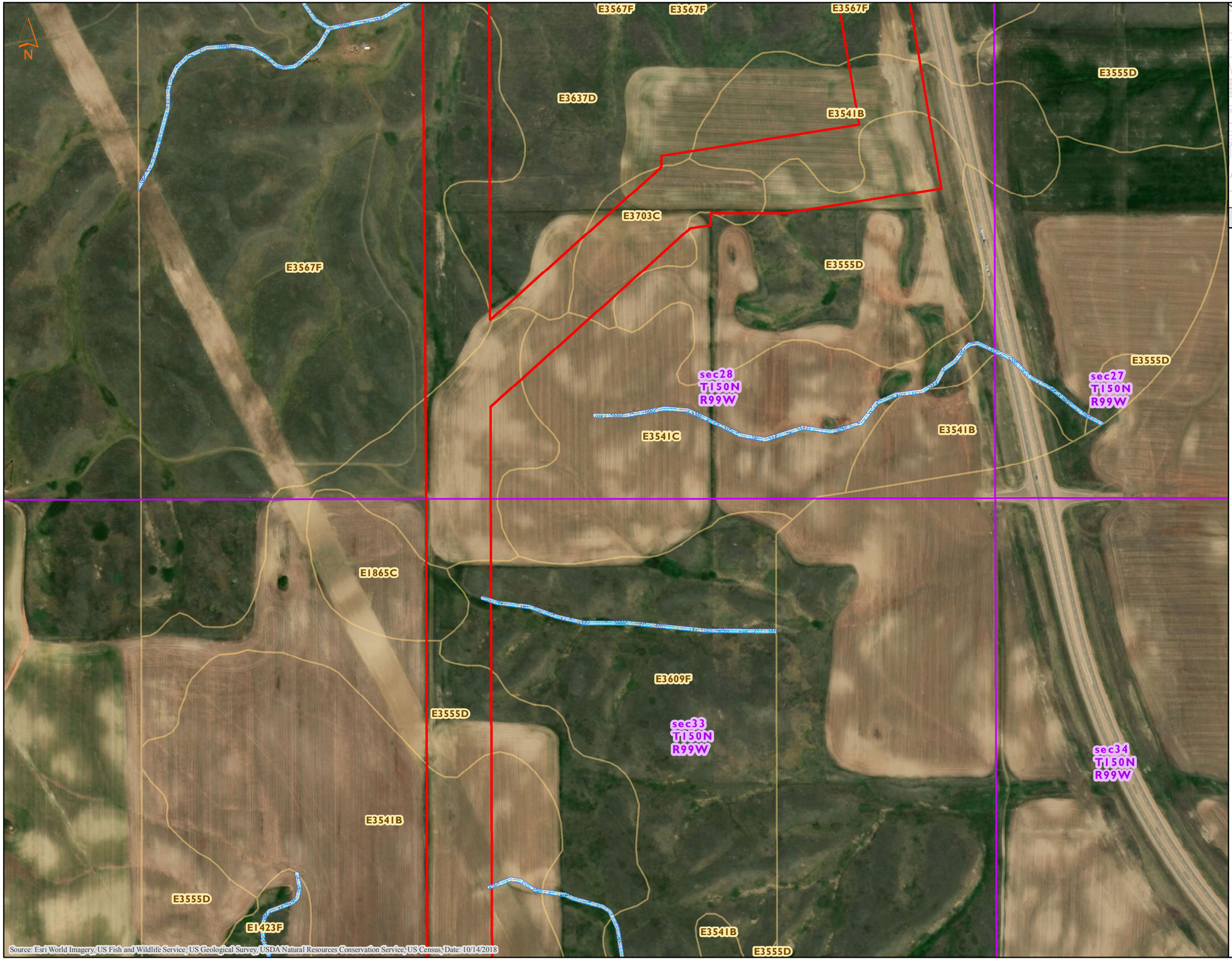
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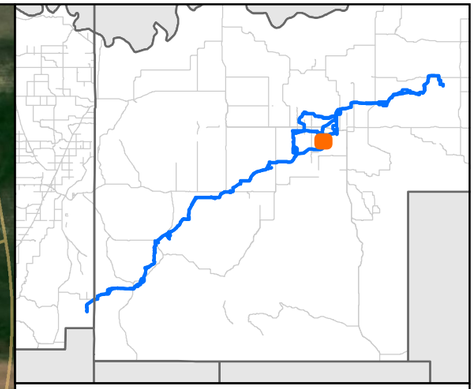
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 45 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





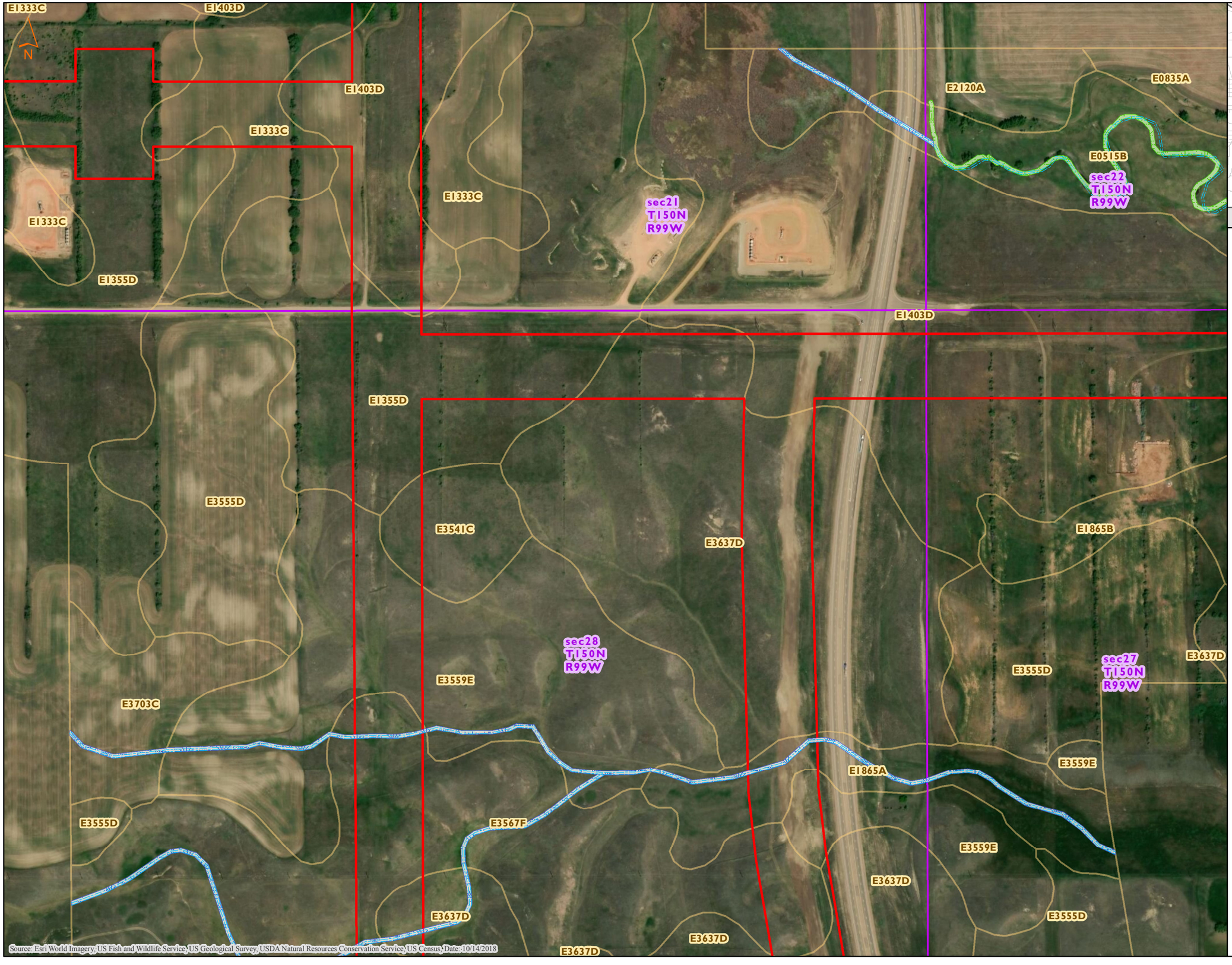
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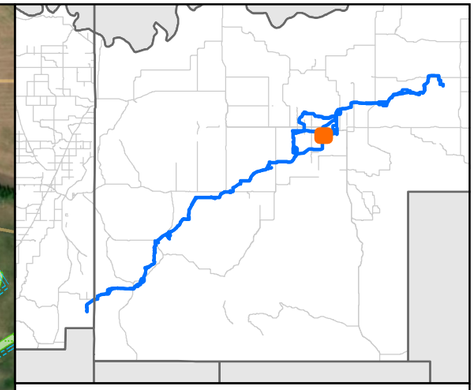
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 46 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





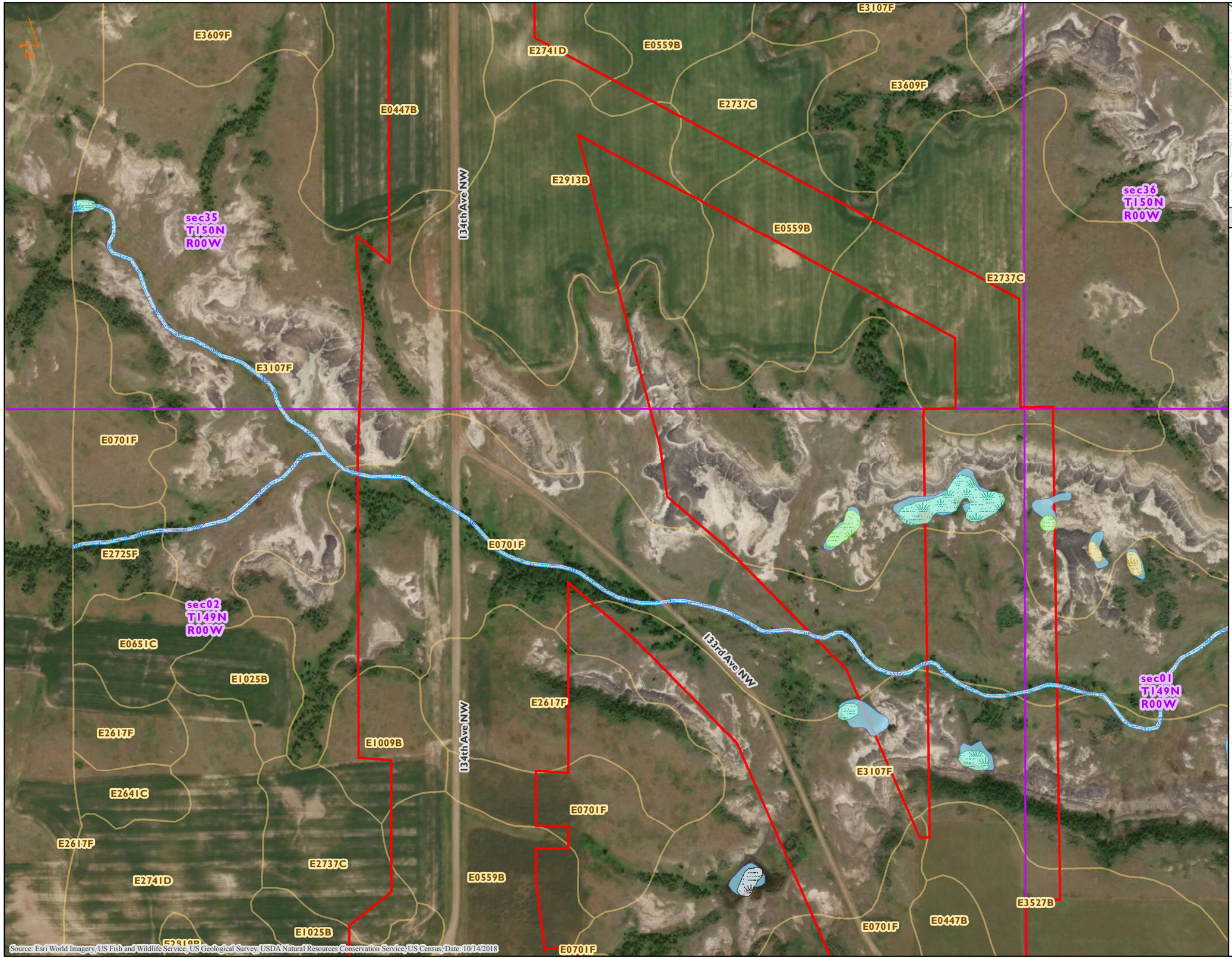
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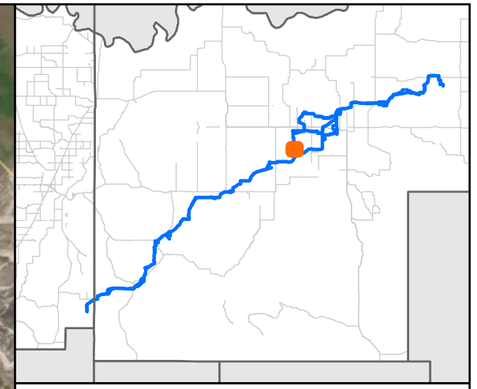
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 47 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





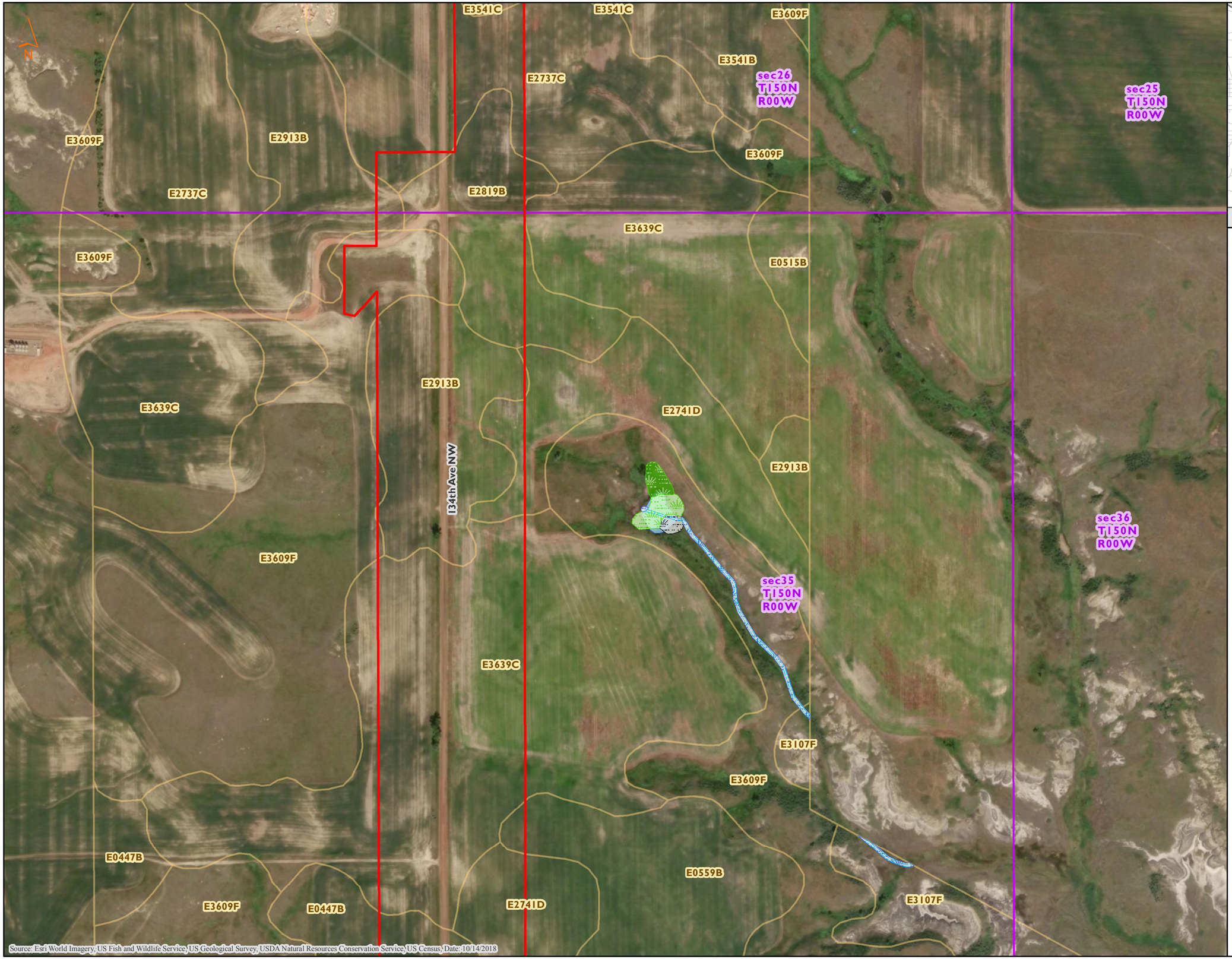
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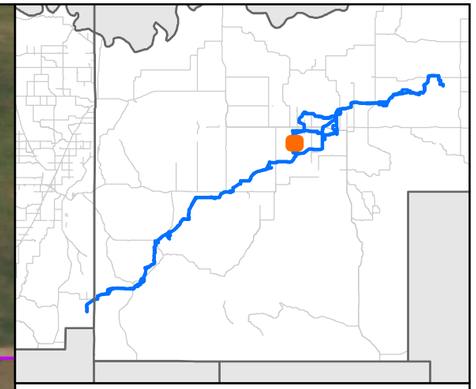
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 48 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





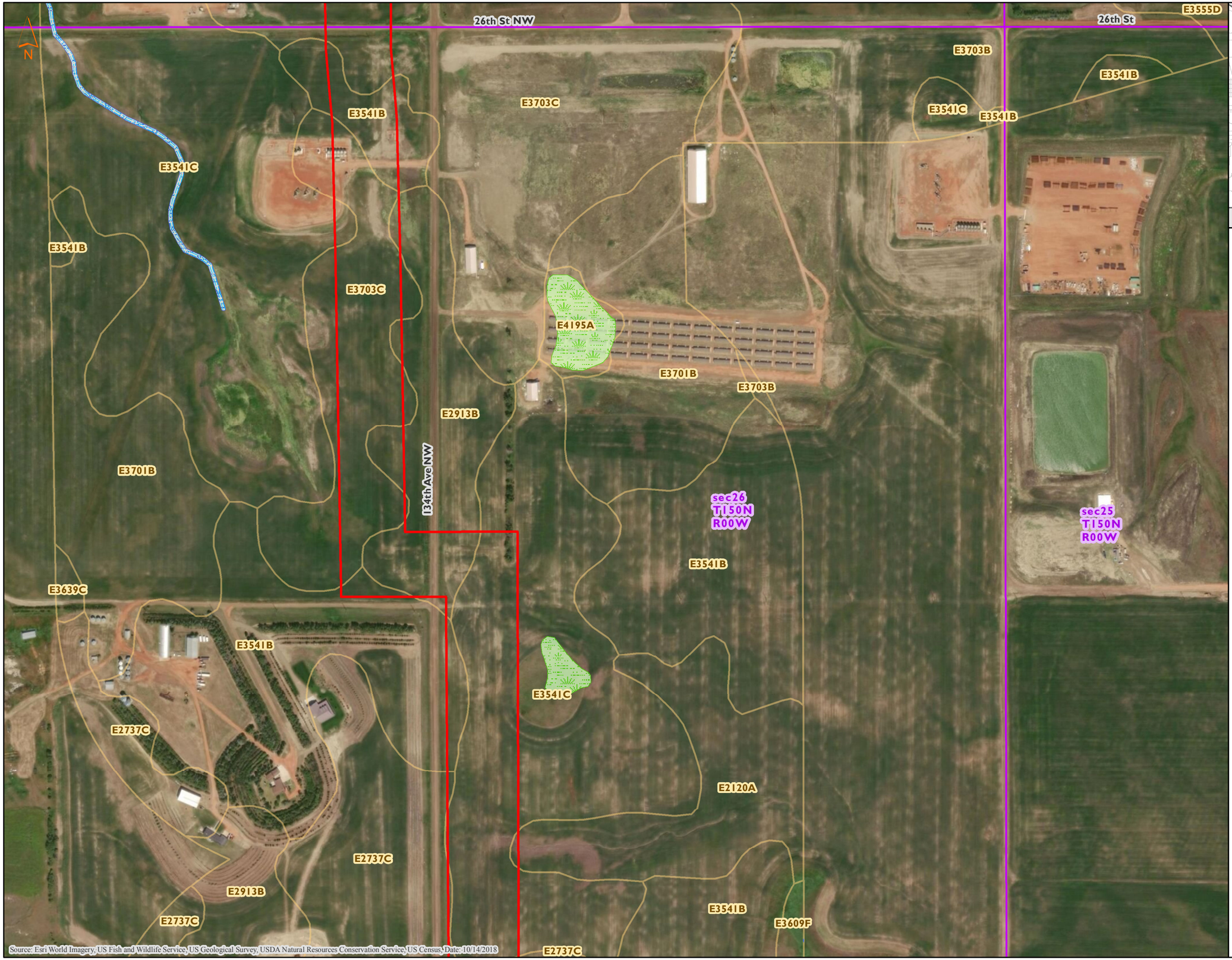
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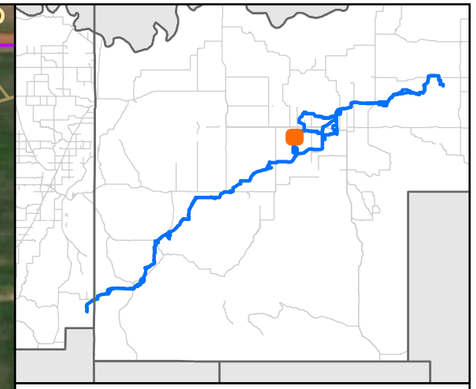
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 49 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





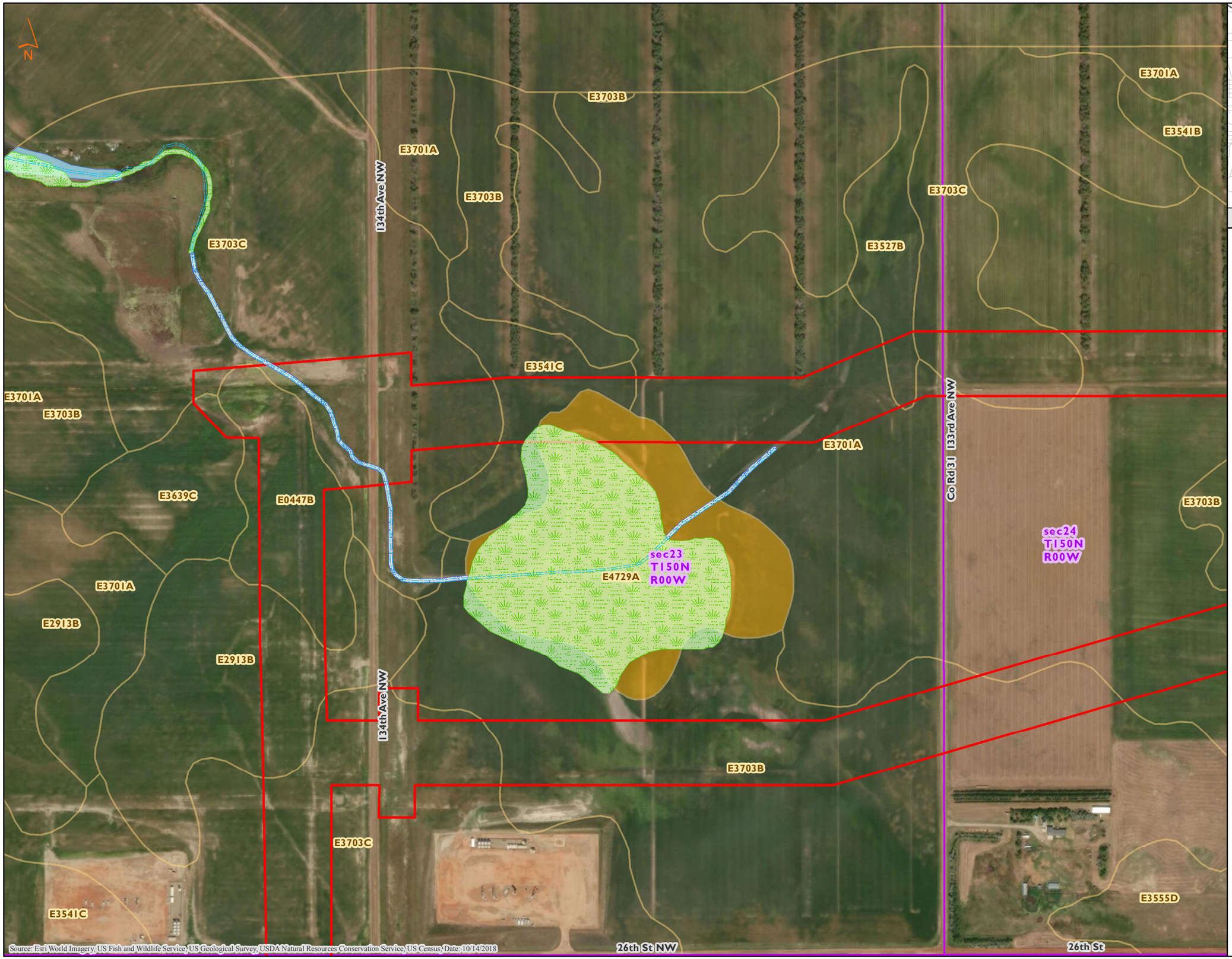
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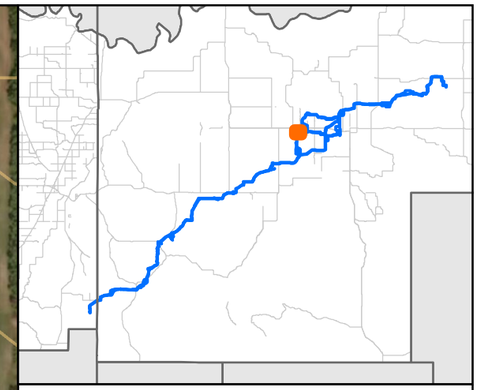
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 50 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





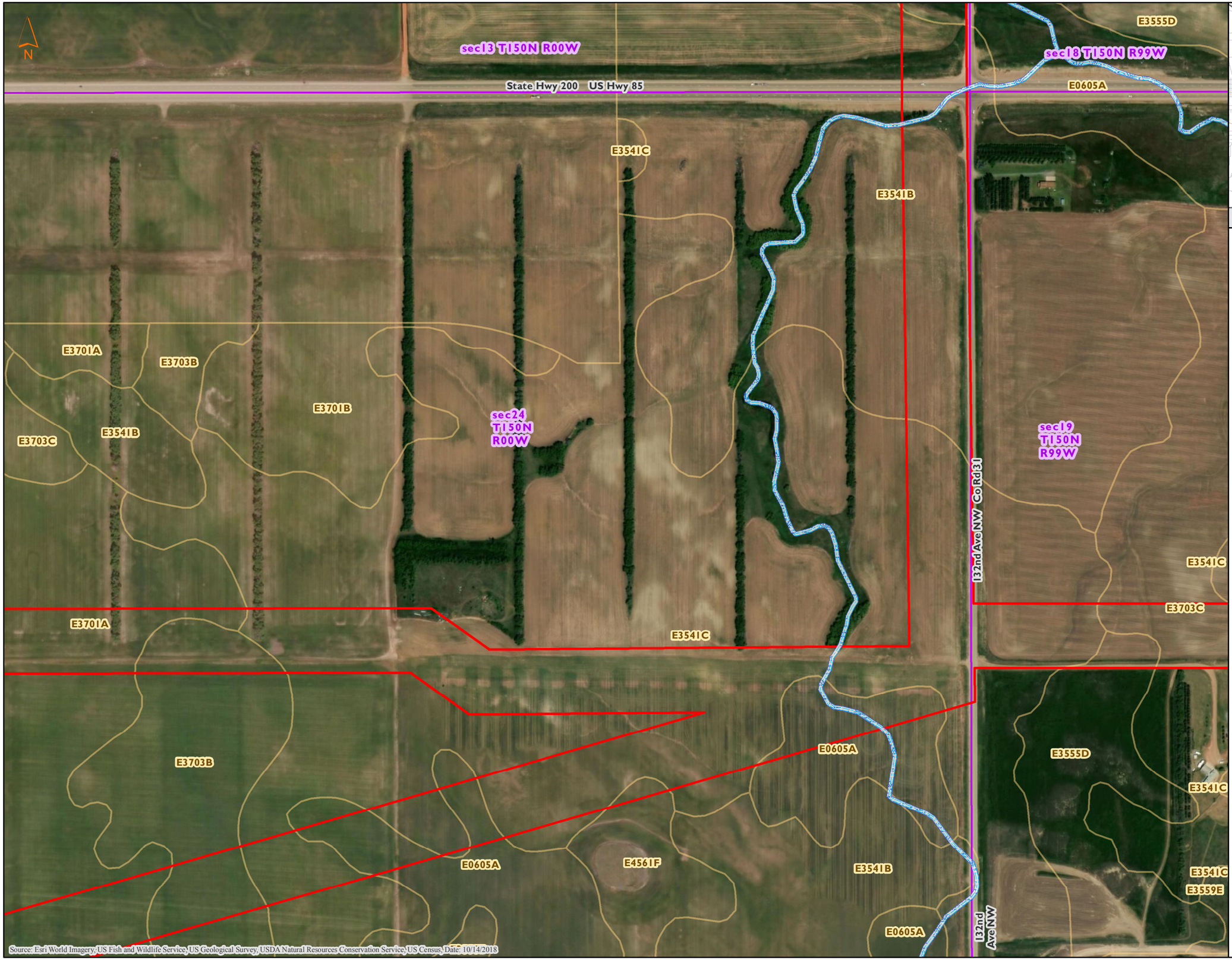
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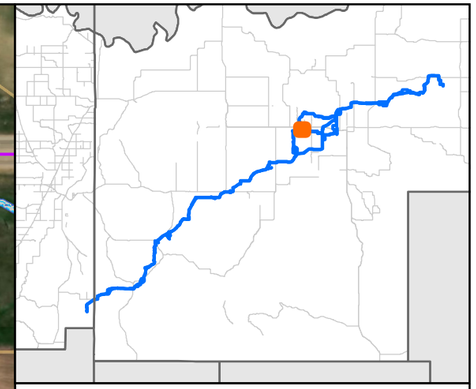
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 51 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





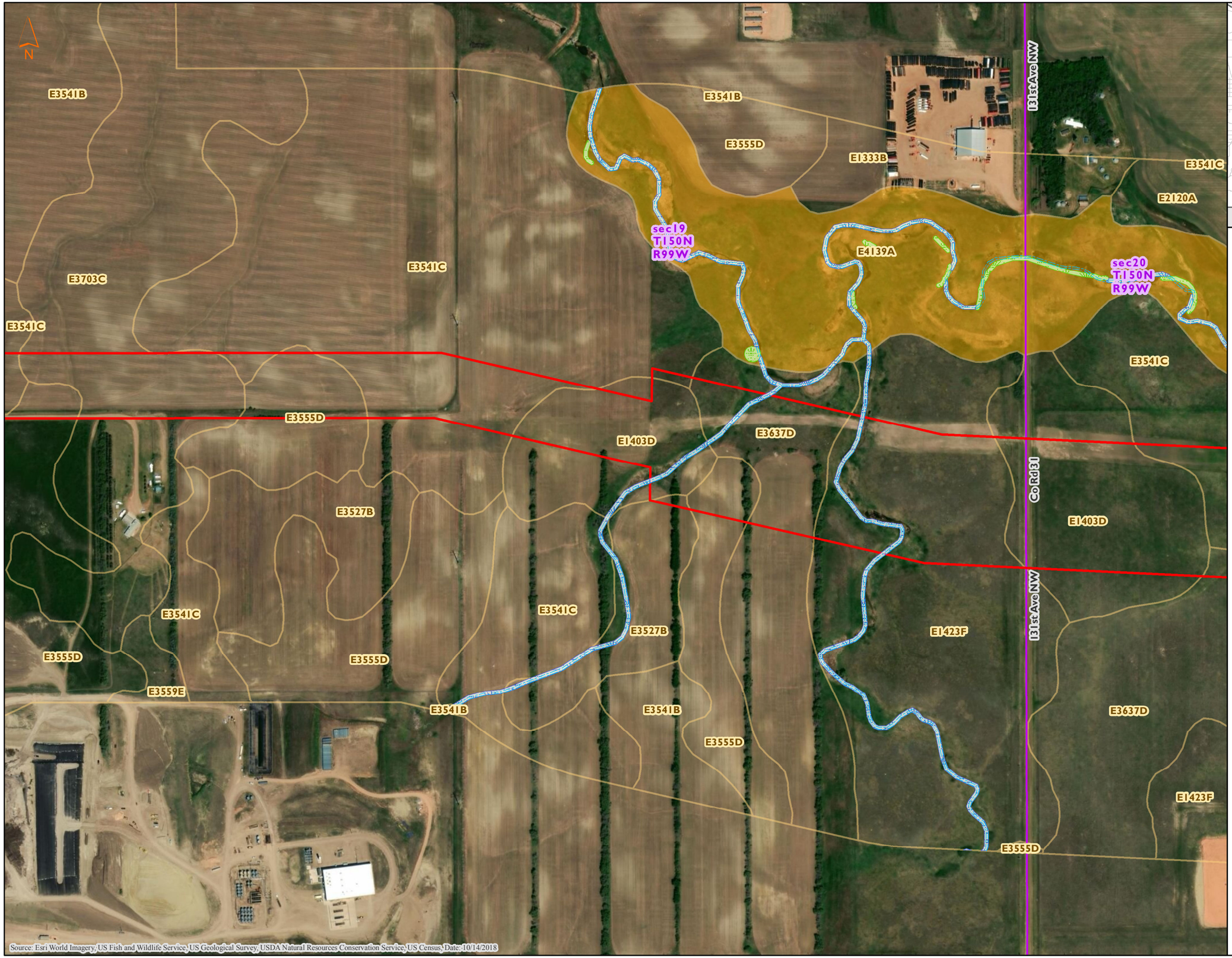
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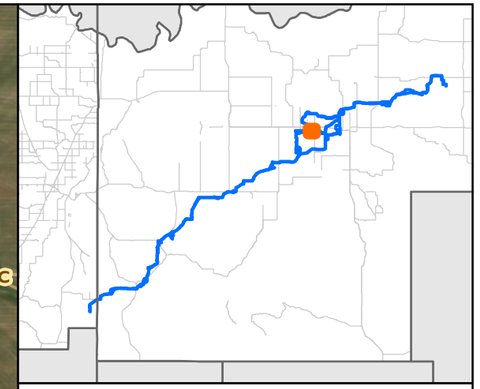
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 52 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





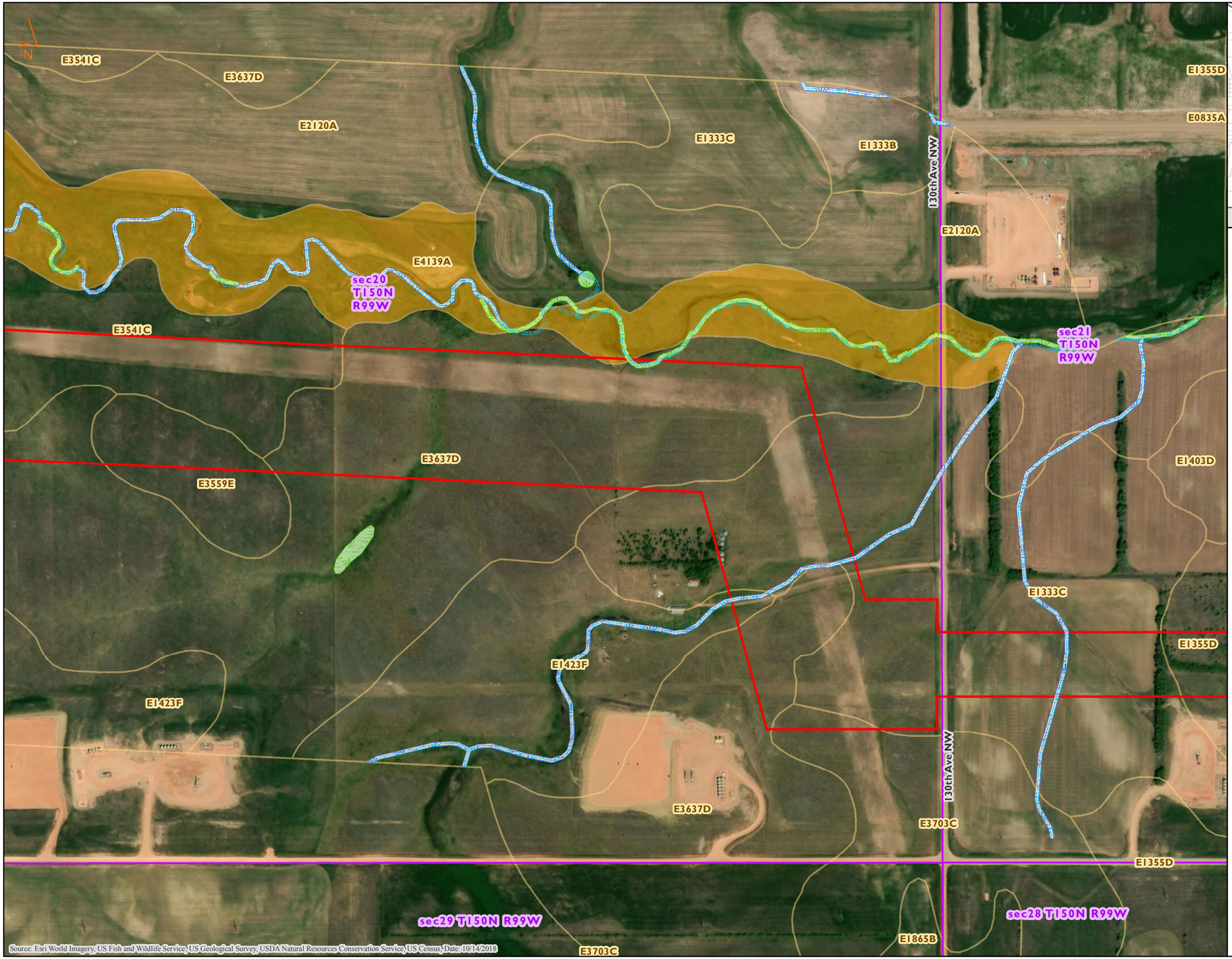
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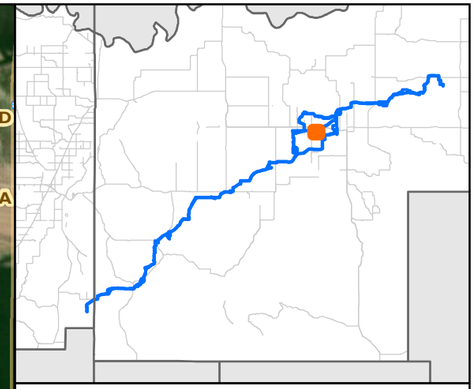
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 53 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





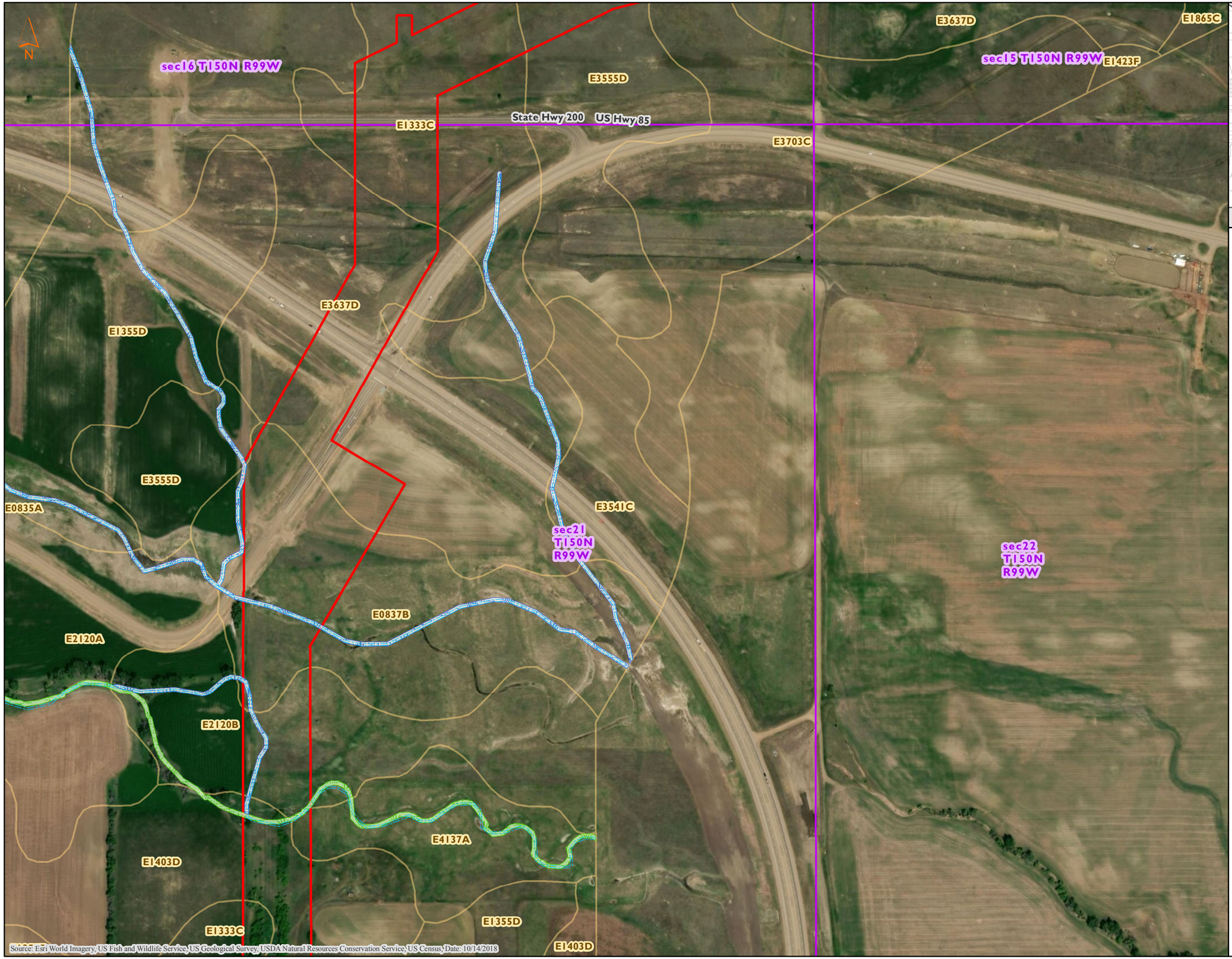
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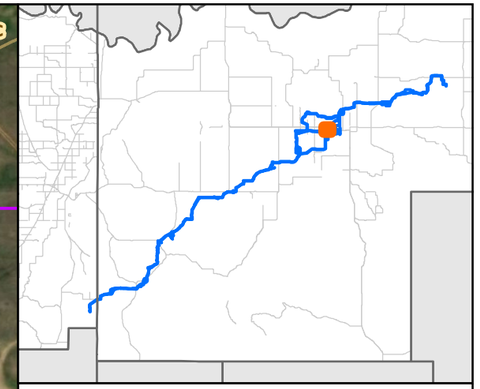
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 54 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





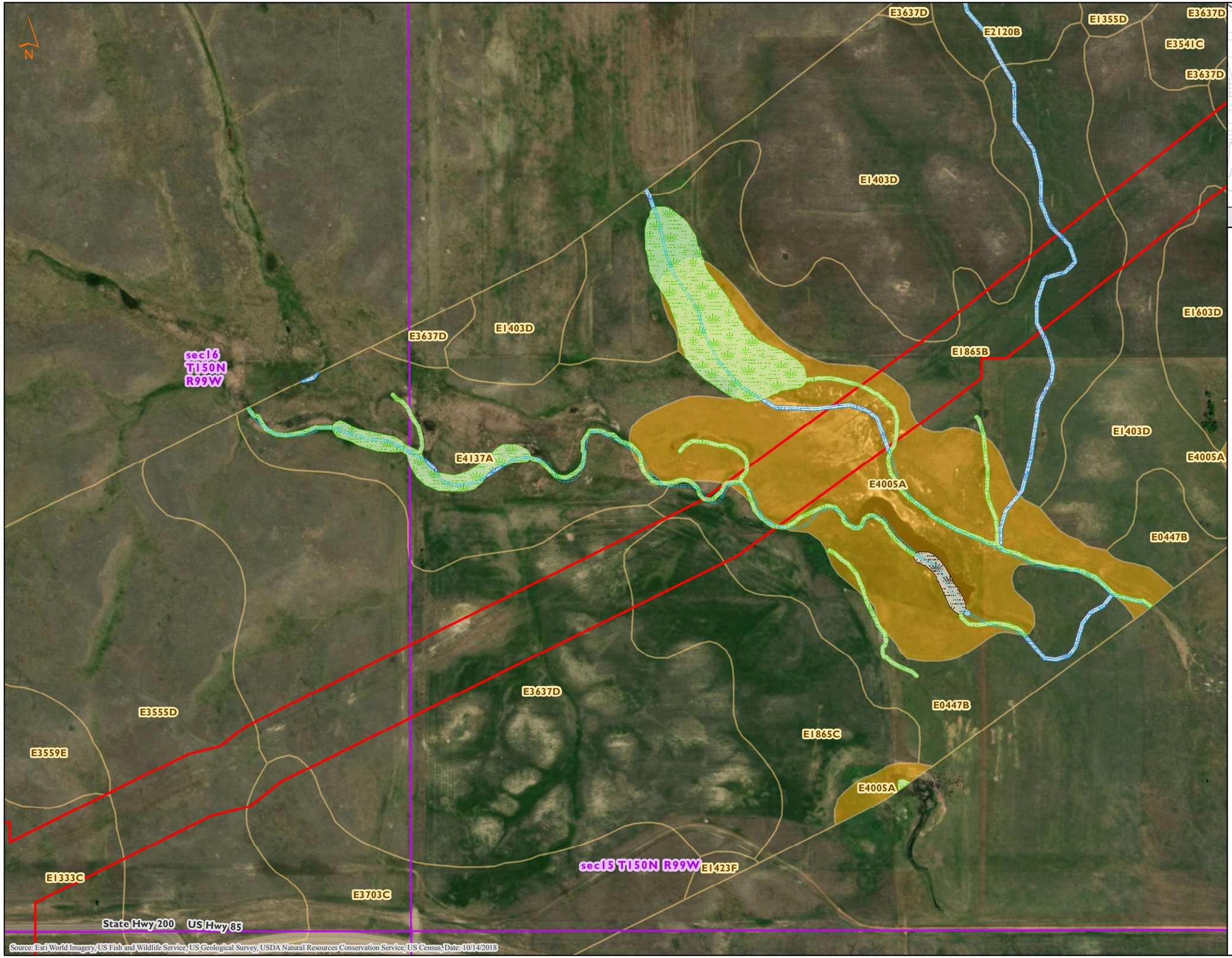
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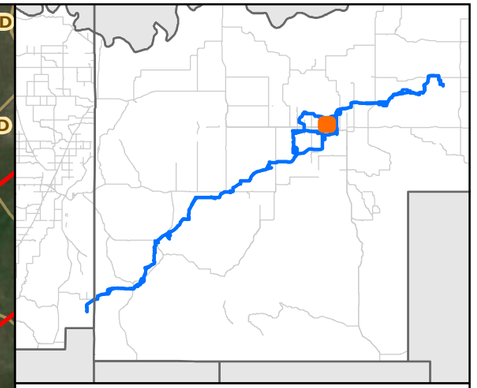
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 55 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





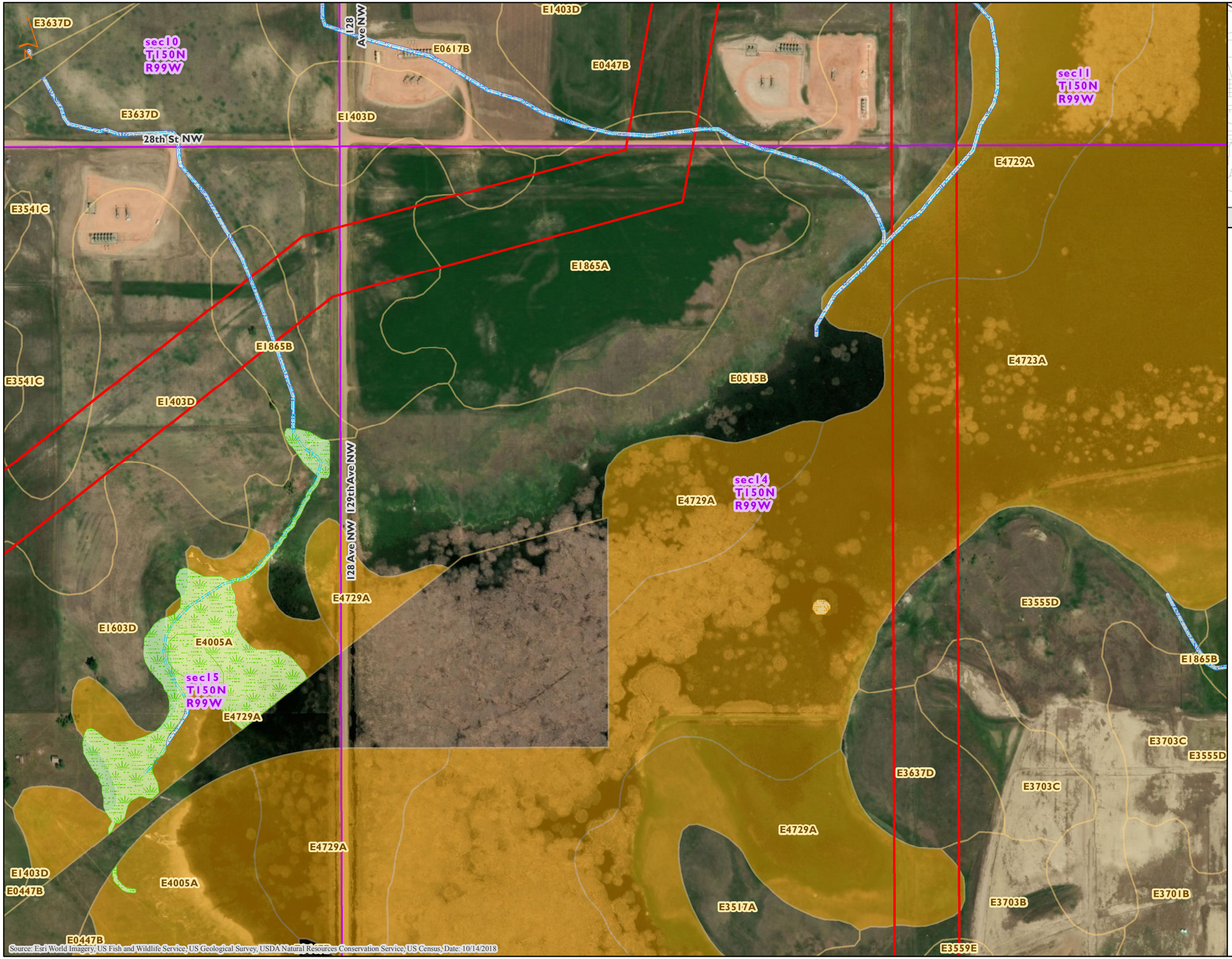
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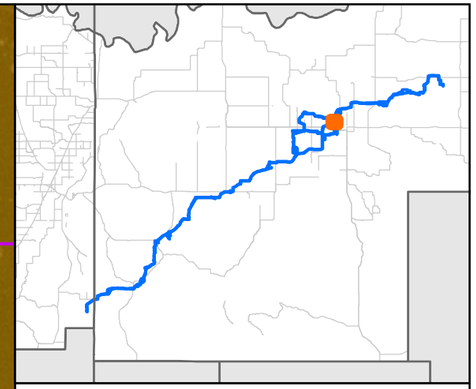
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 56 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





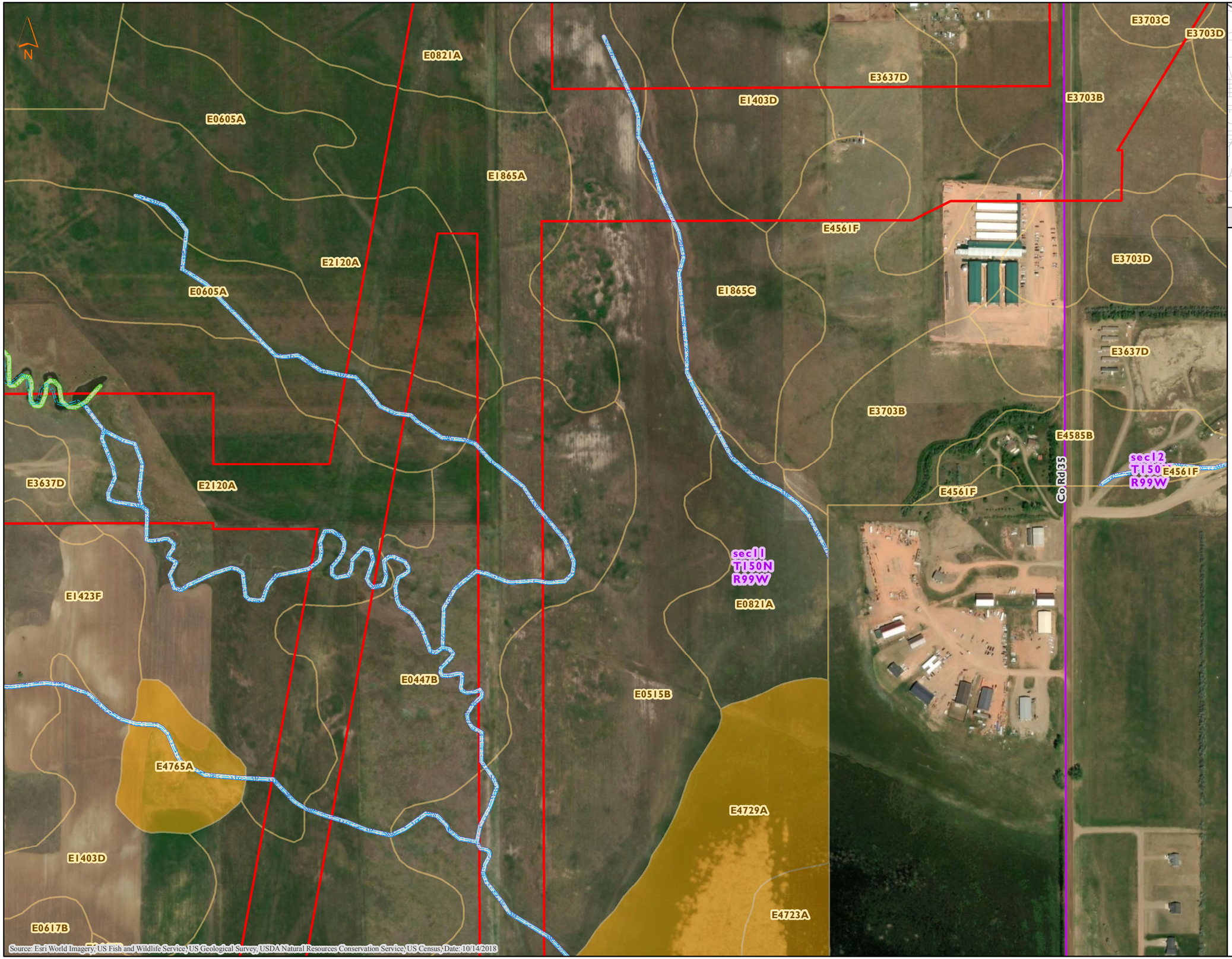
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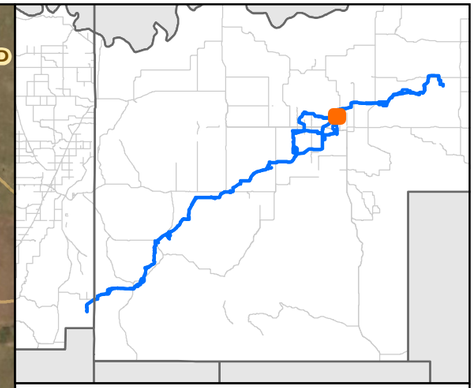
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 57 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet





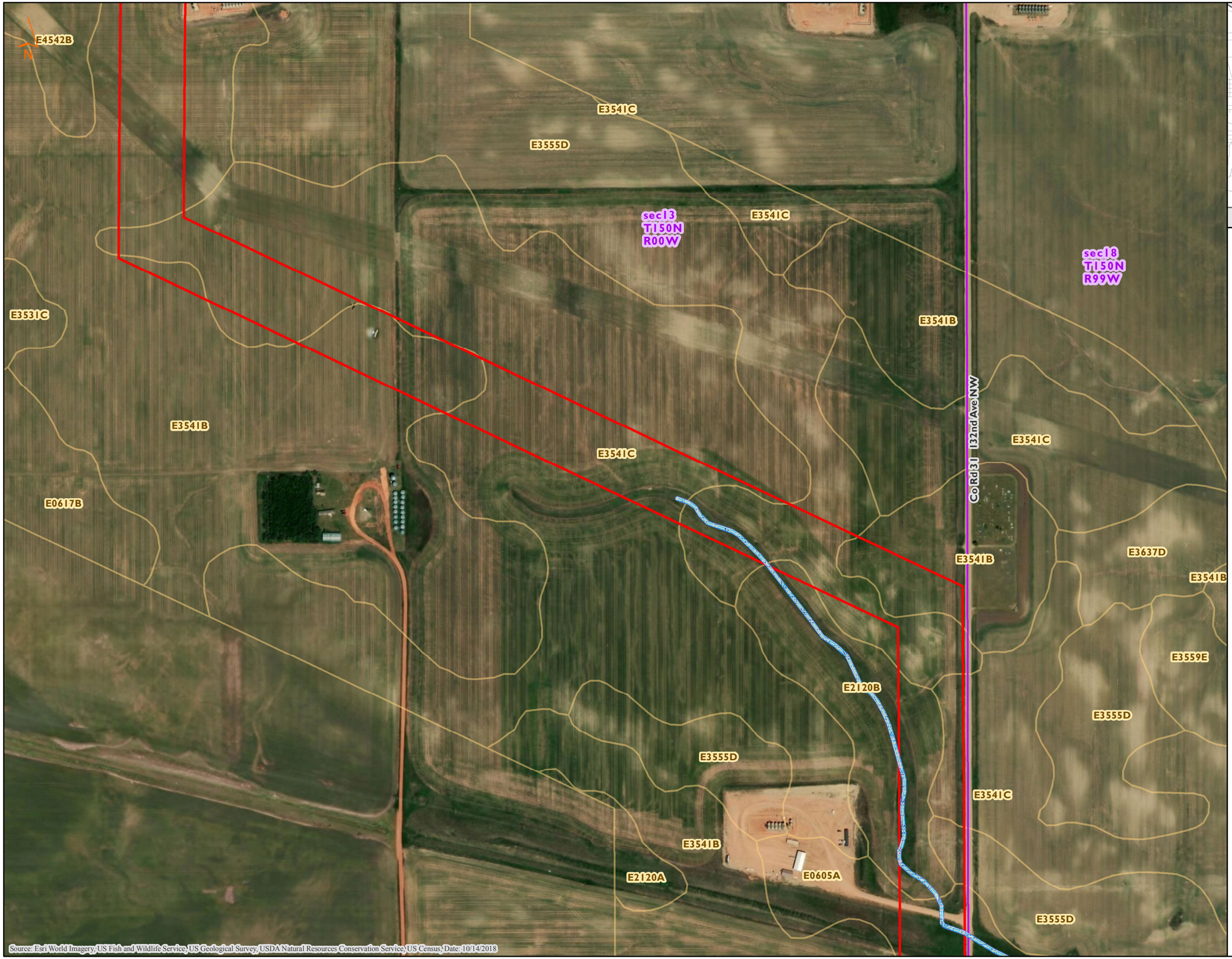
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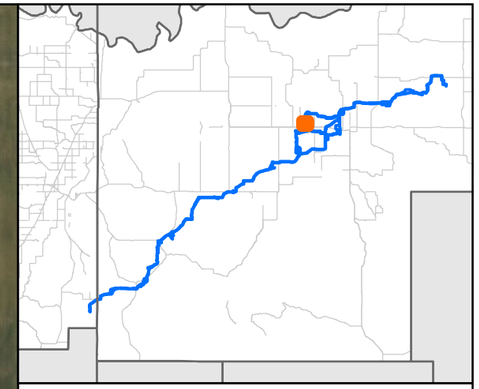
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 58 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





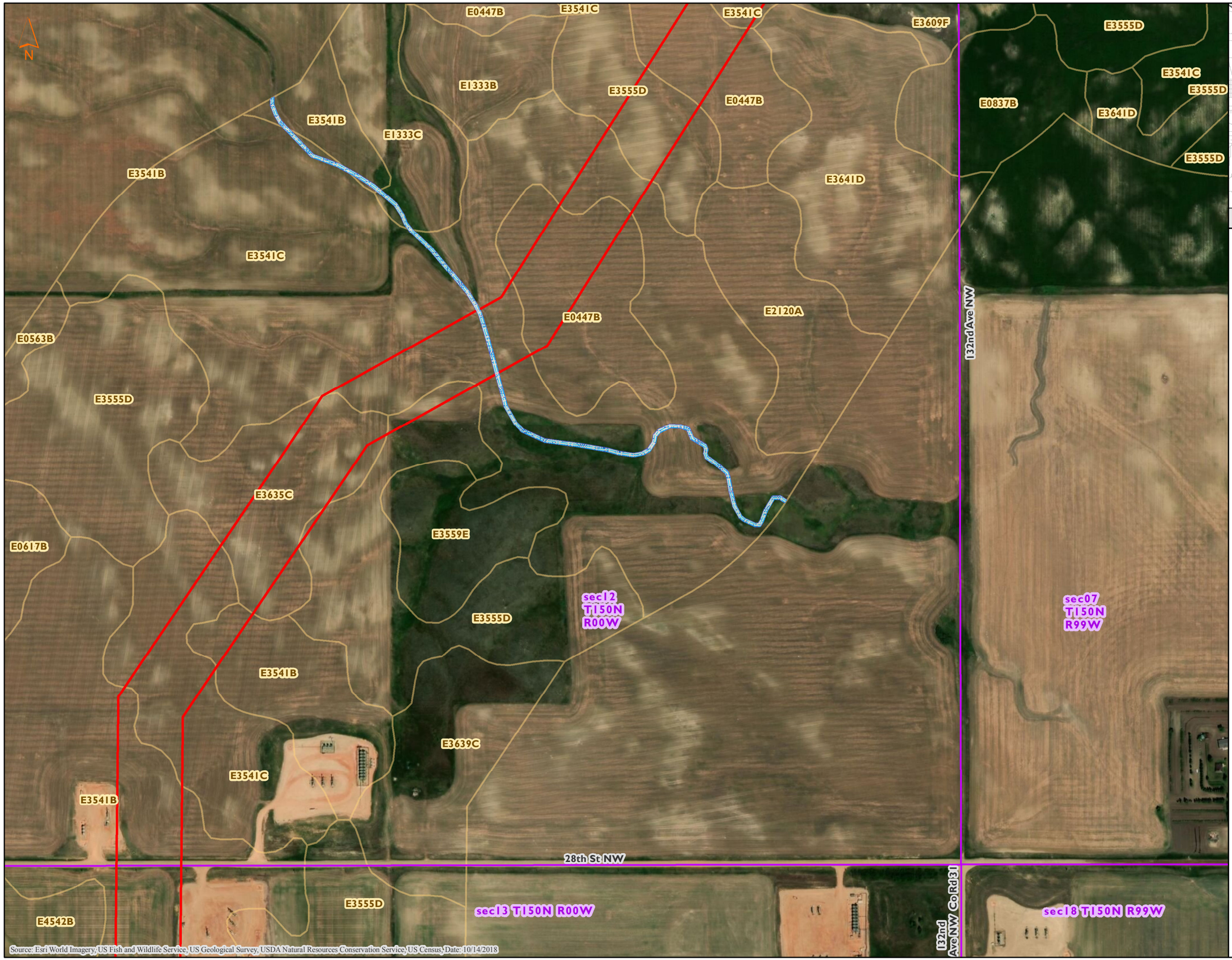
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NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 59 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet



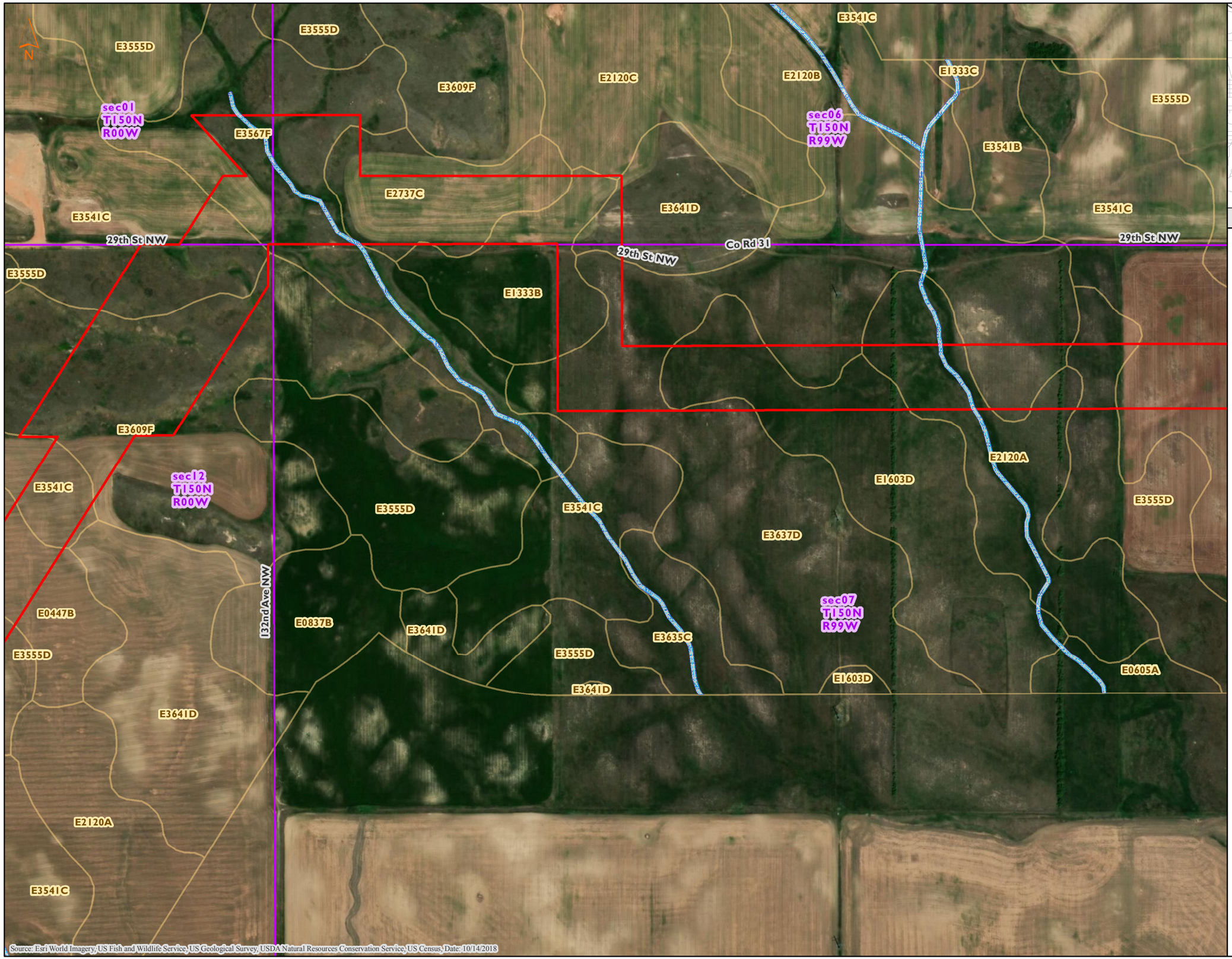
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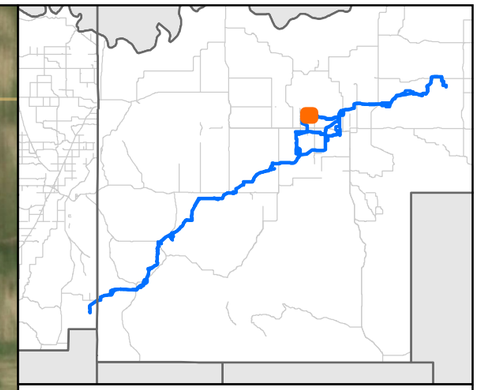
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 60 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





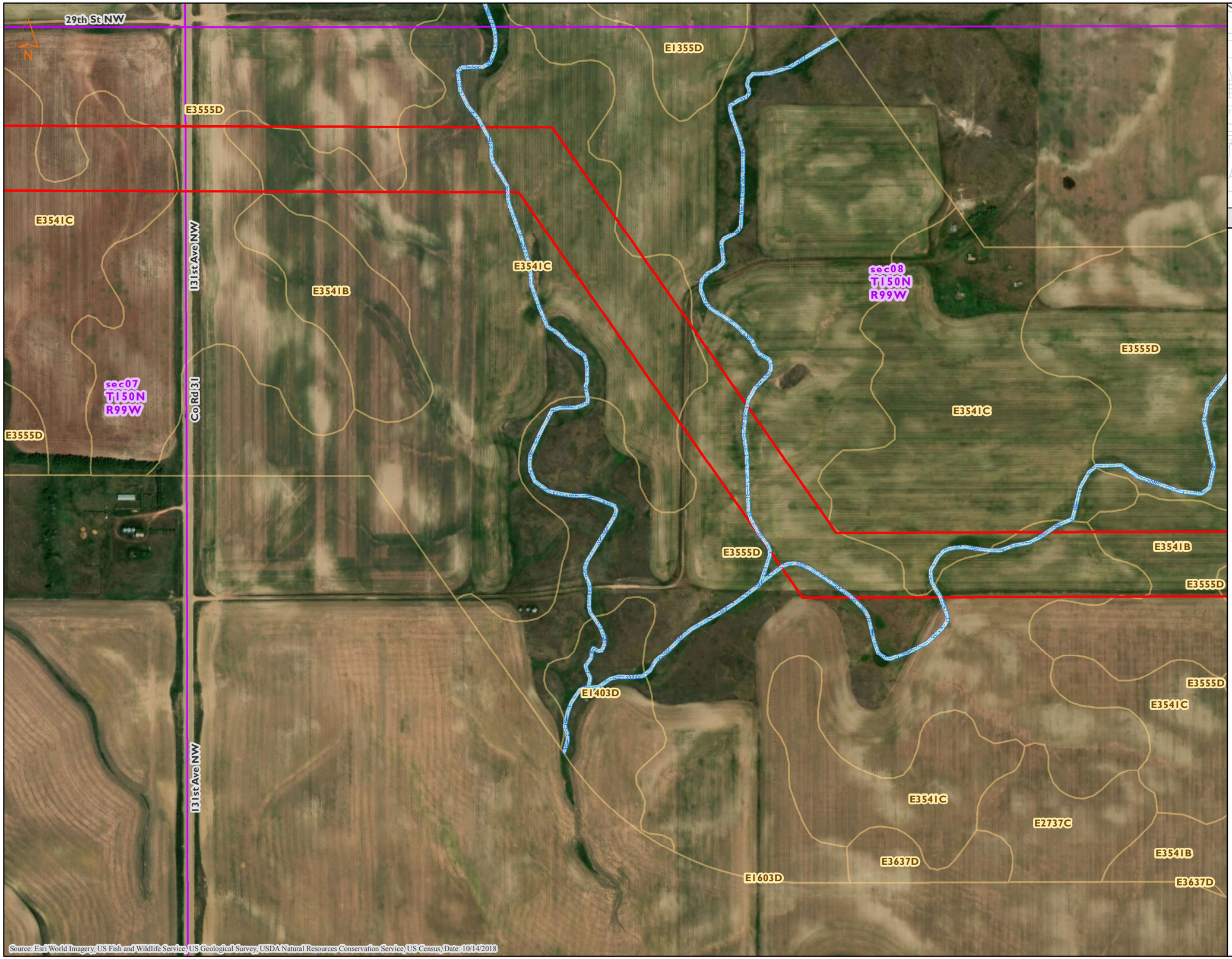
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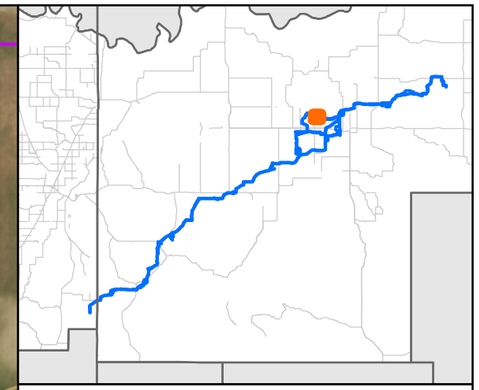
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 61 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





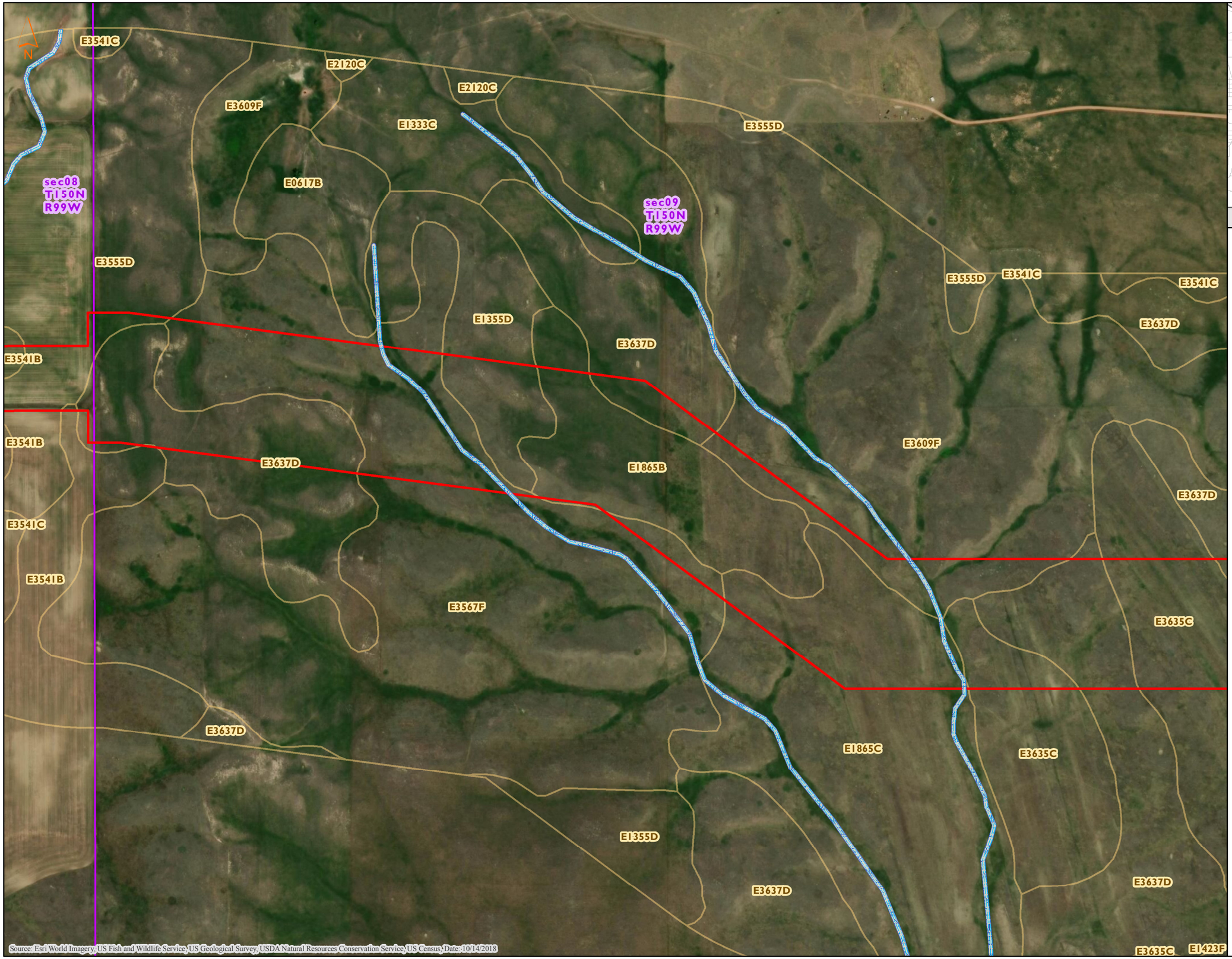
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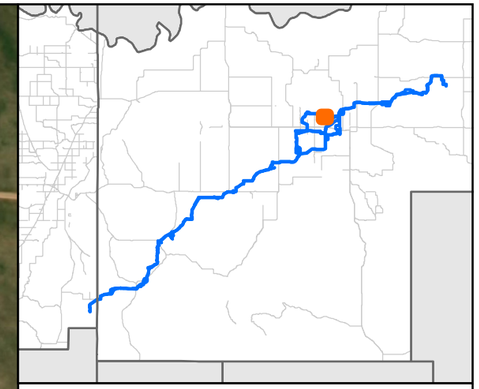
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 62 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





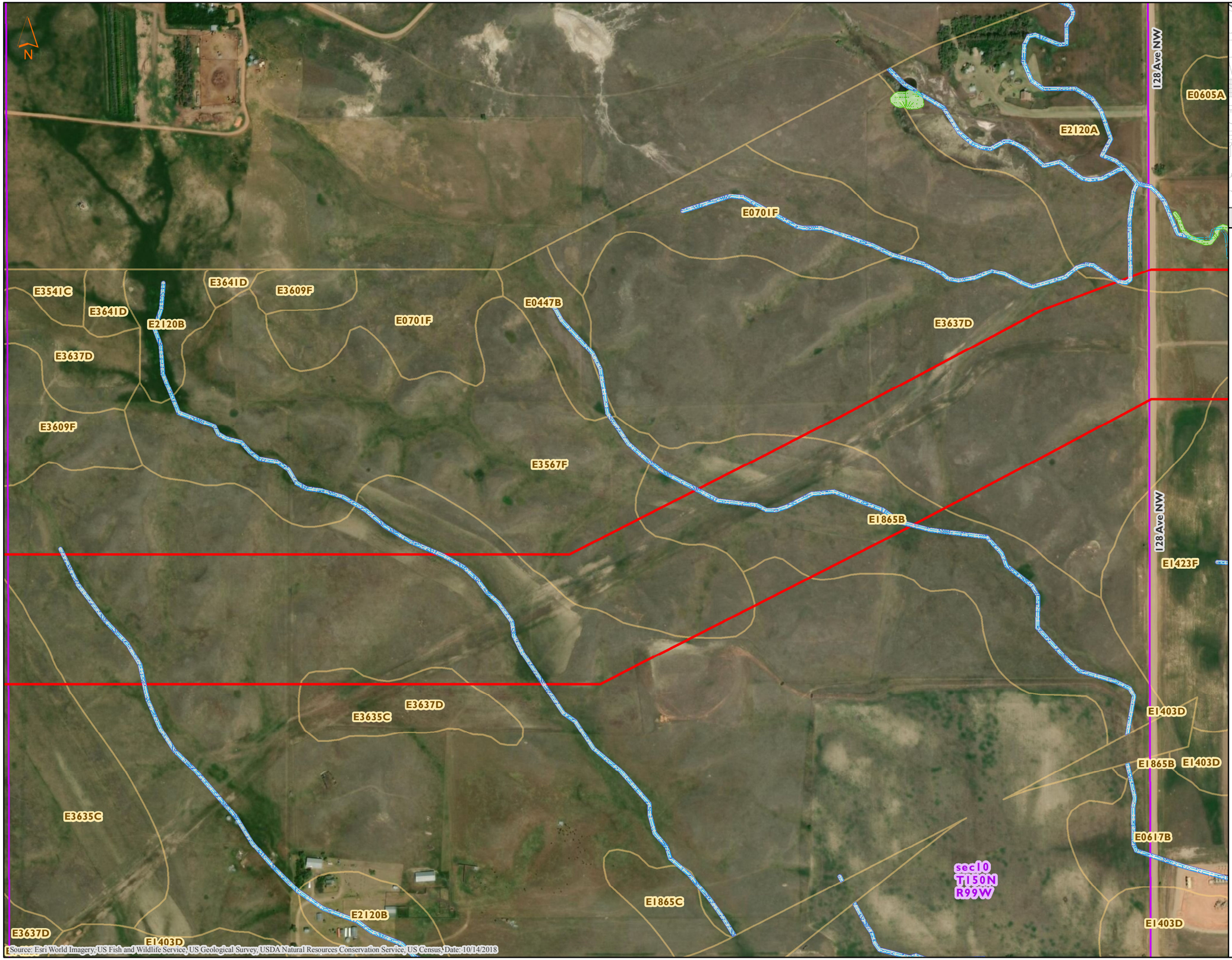
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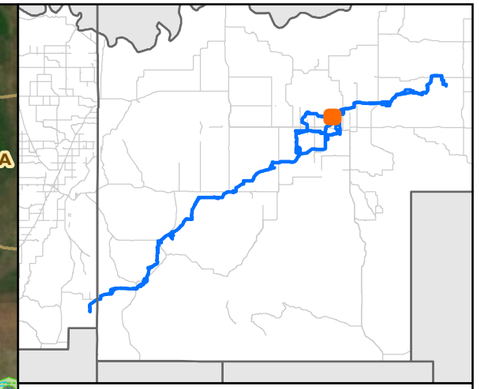
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 63 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





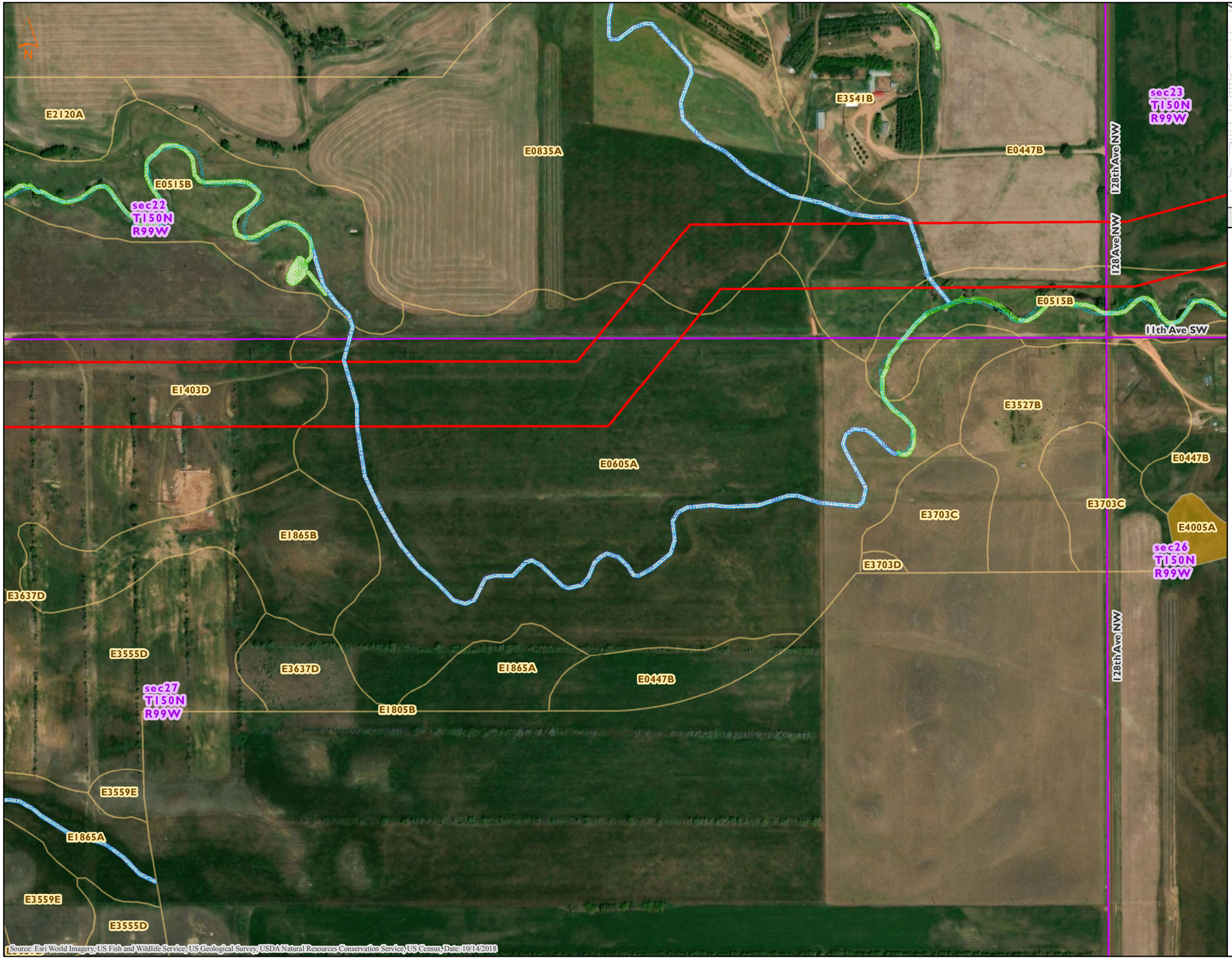
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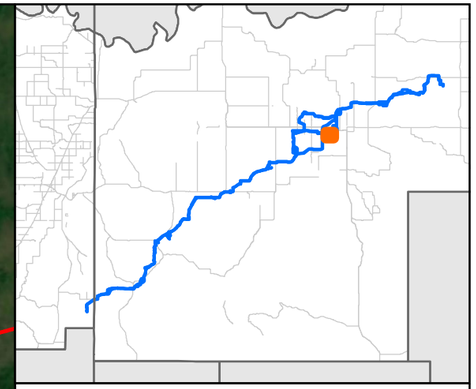
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 64 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
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- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





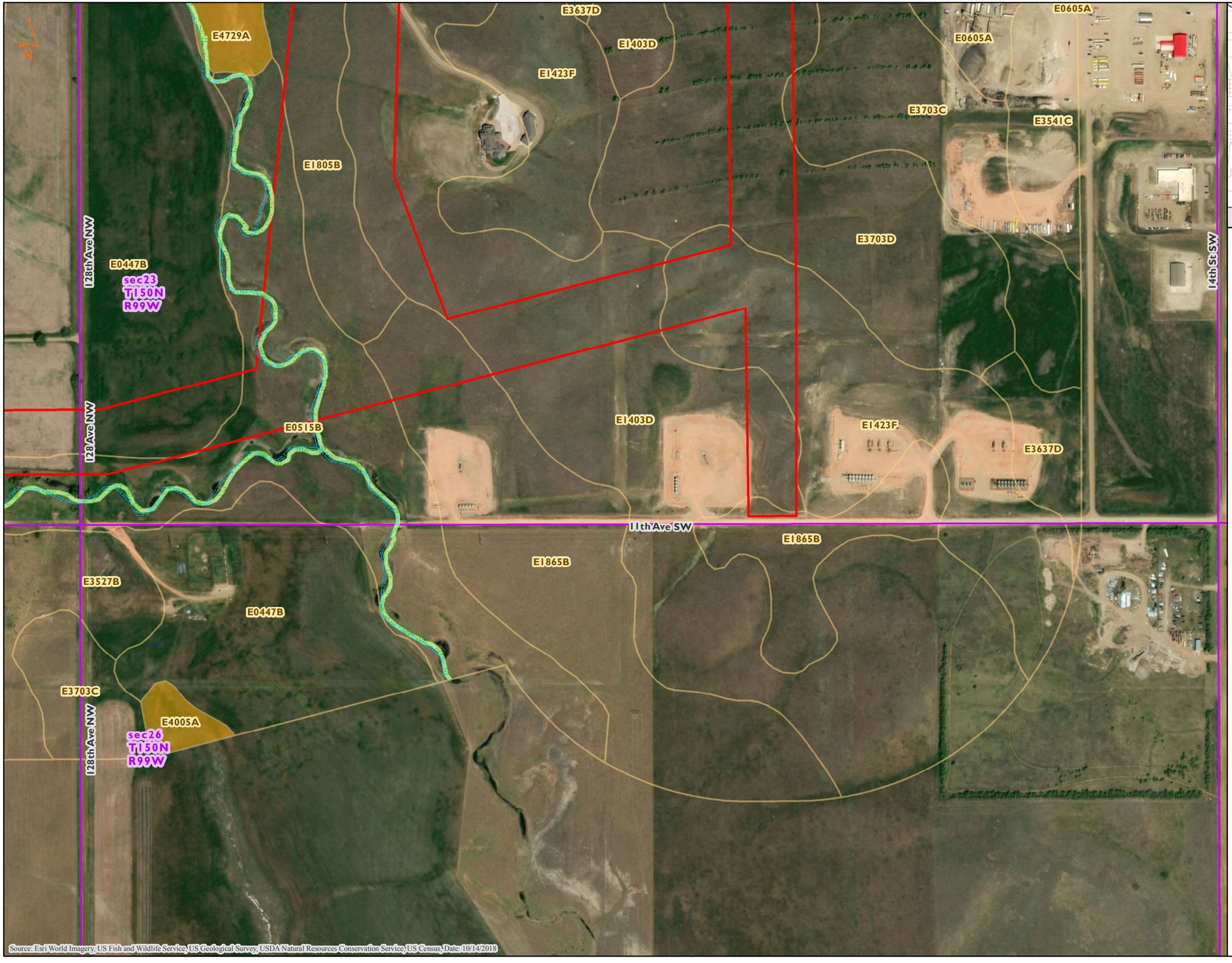
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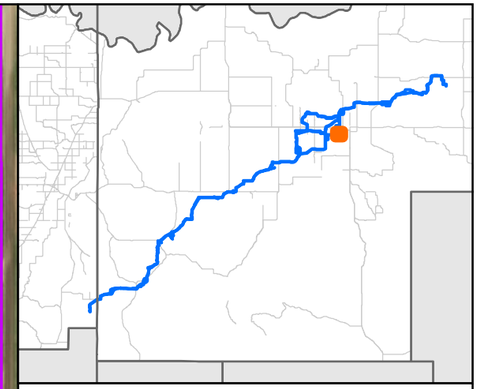
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 65 of 84

- NHD Stream
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- NWI PAB
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- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





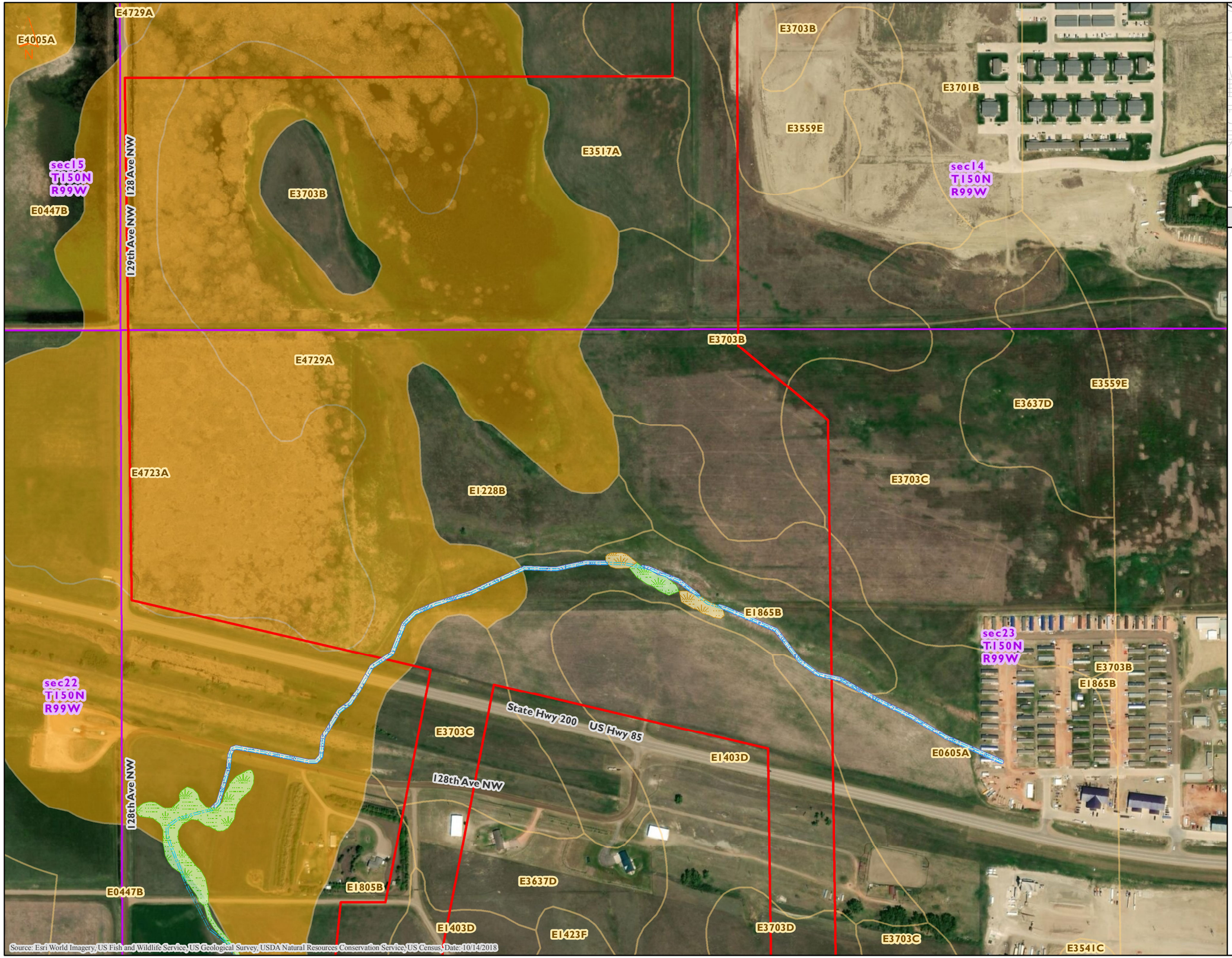
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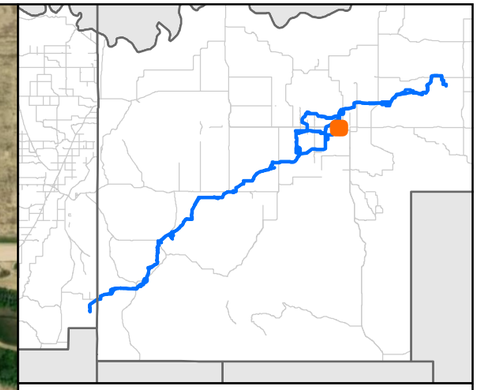
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 66 of 84

- NHD Stream
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- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





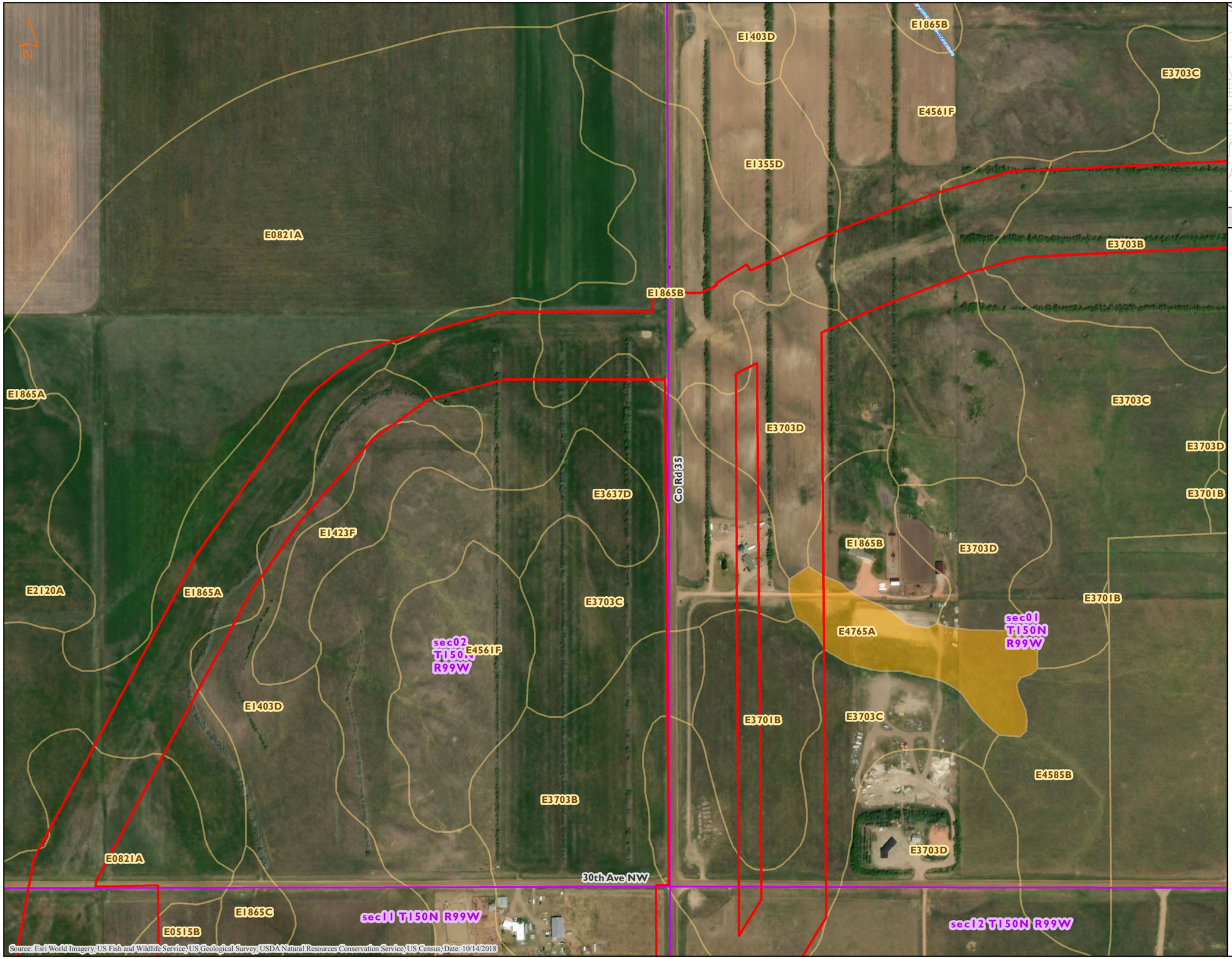
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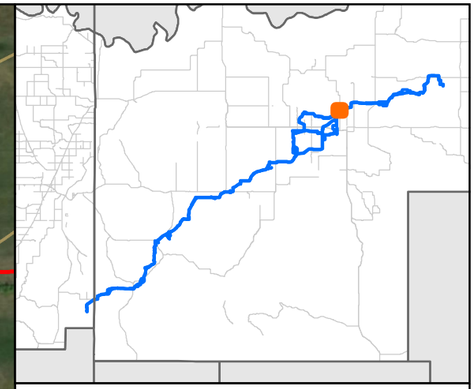
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 67 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





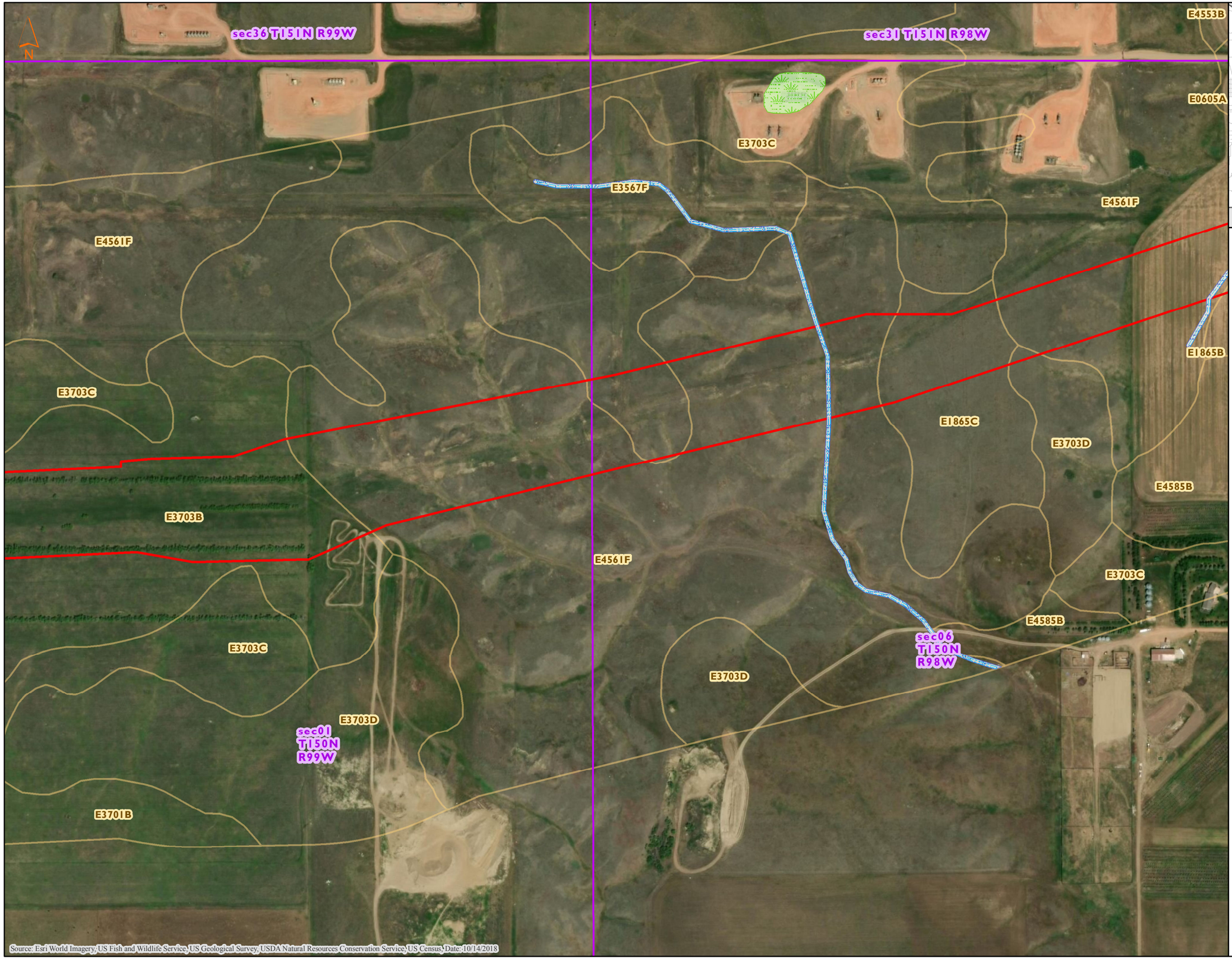
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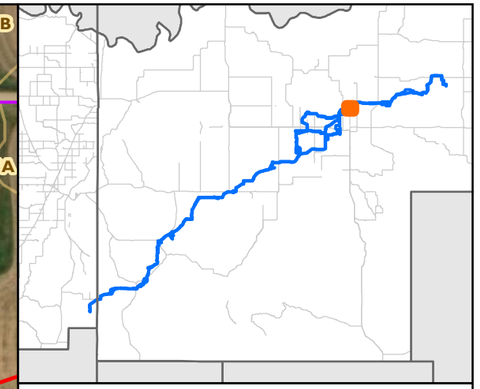
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 68 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





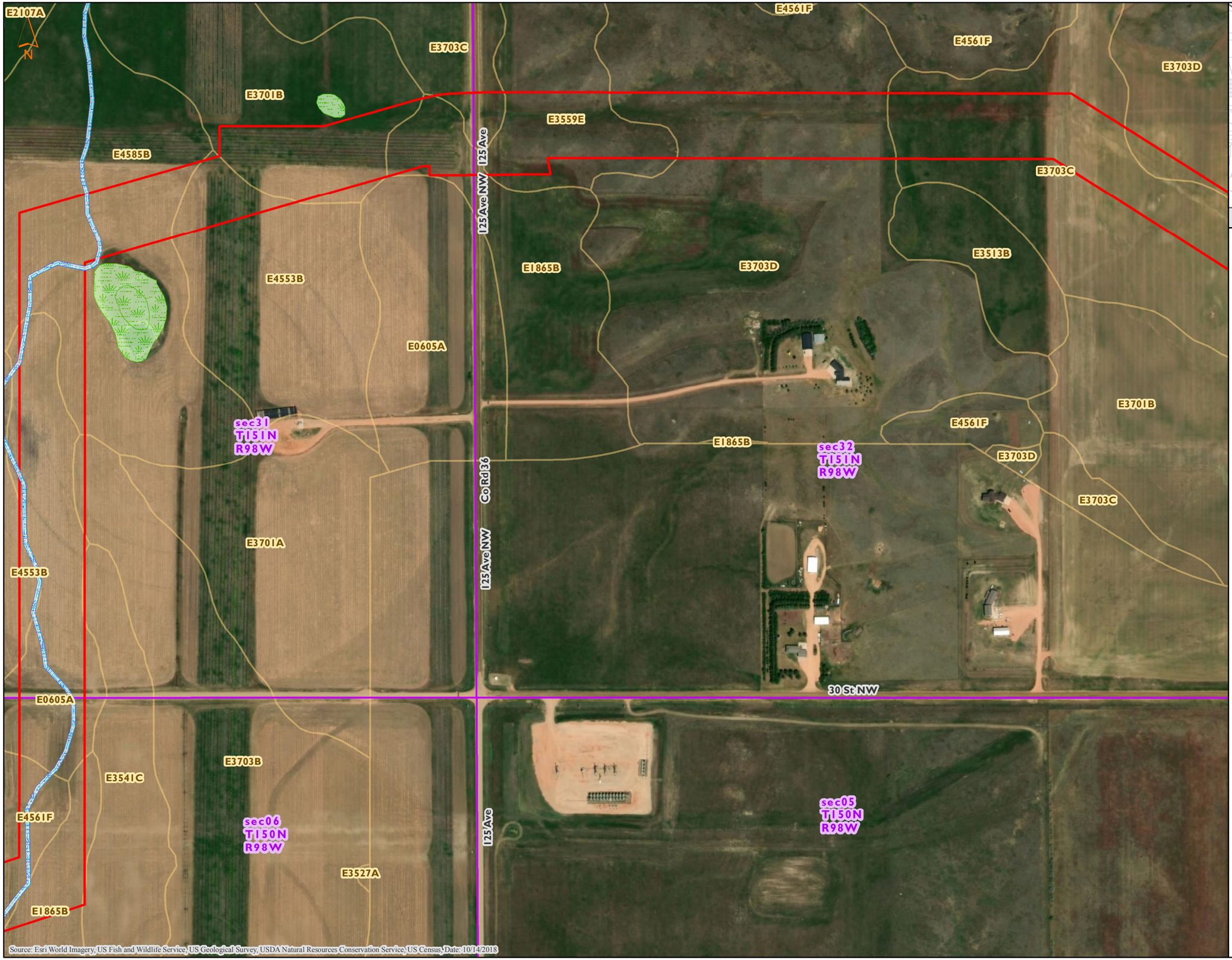
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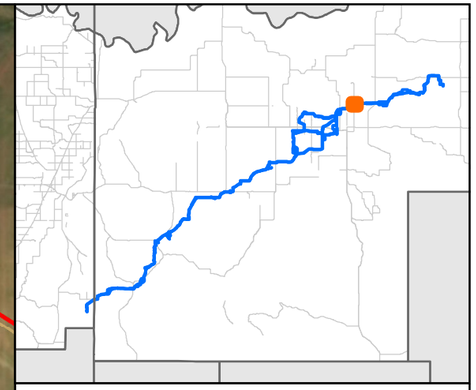
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 69 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





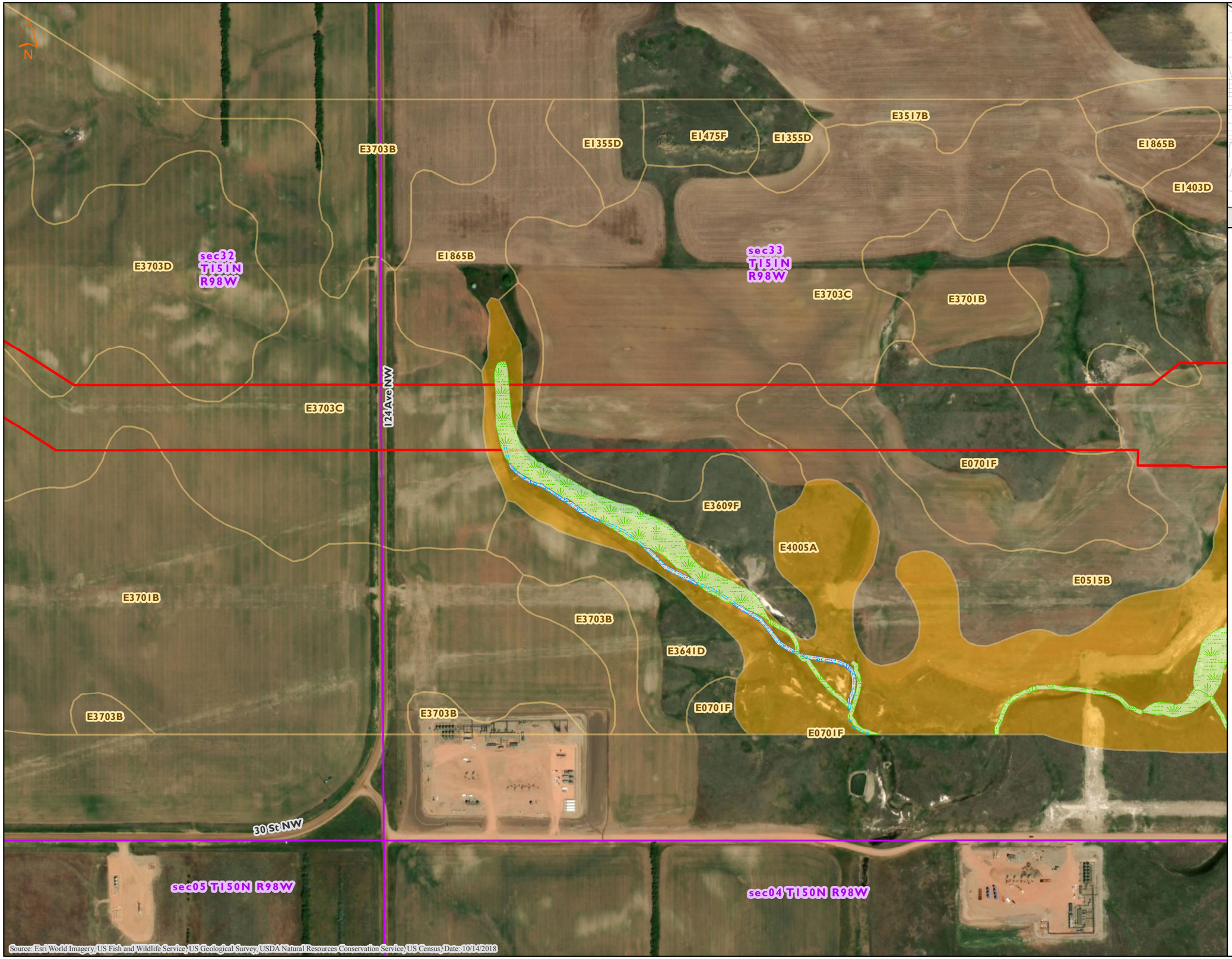
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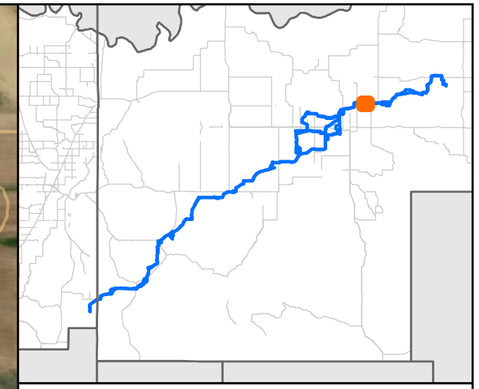
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 70 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





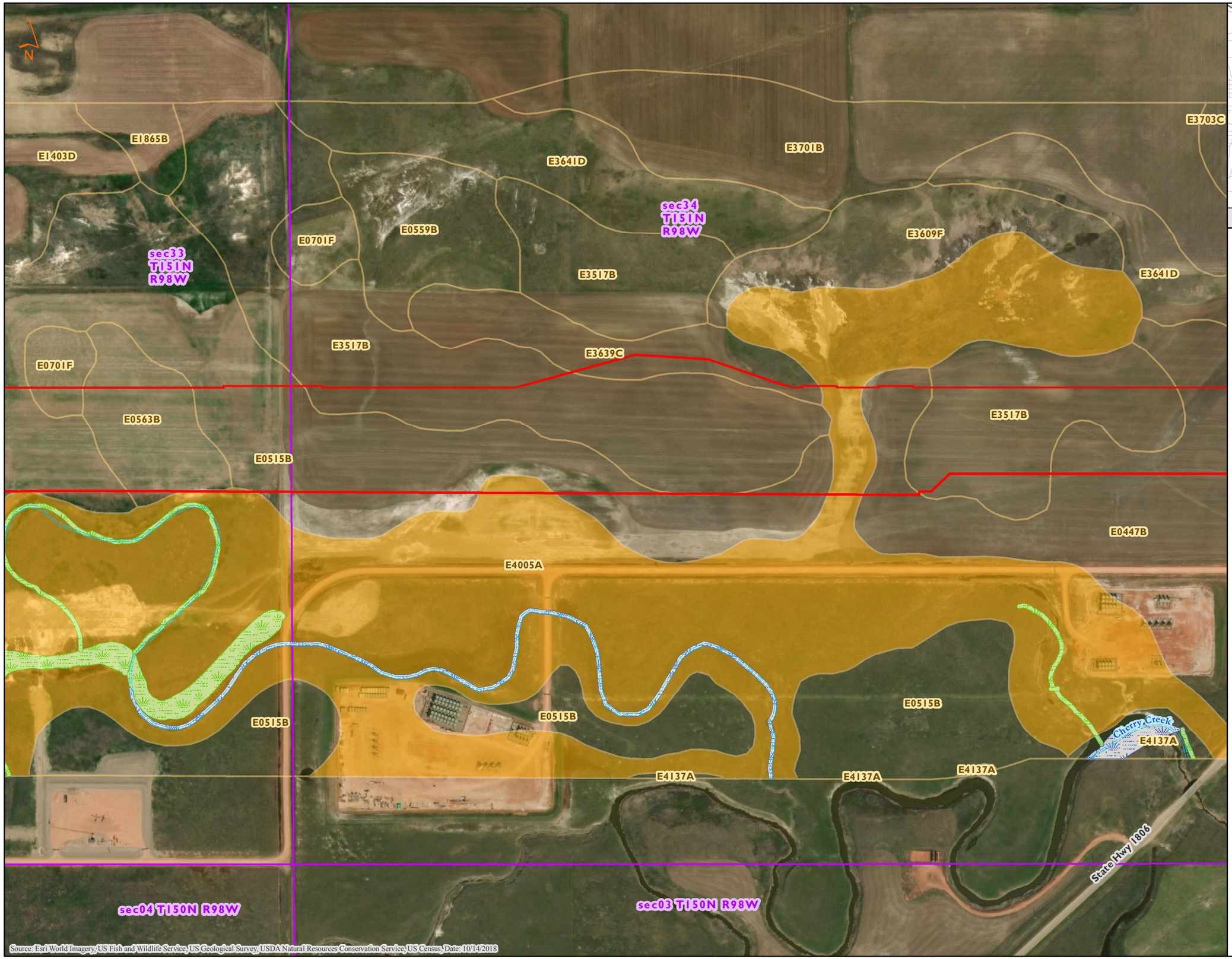
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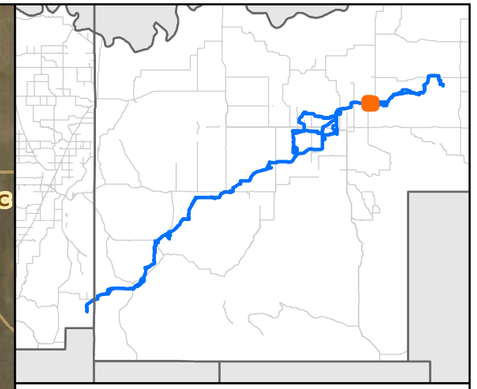
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 71 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





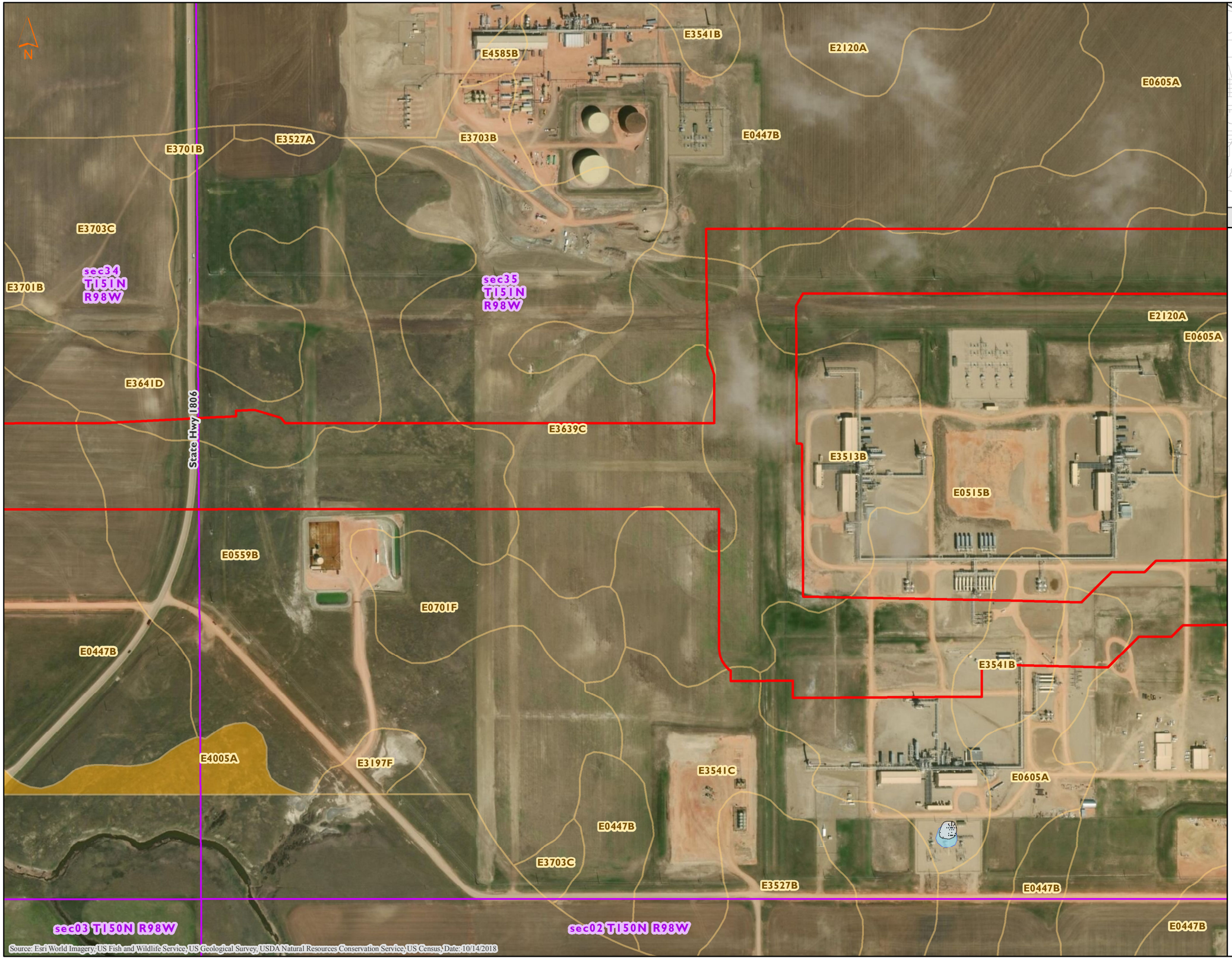
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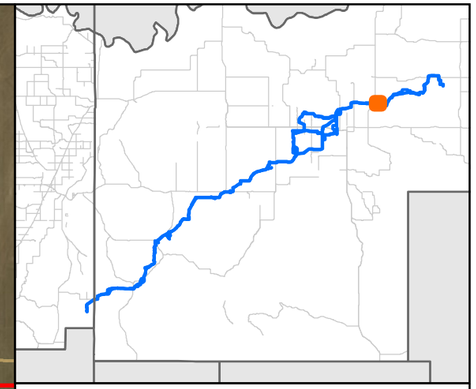
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 72 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





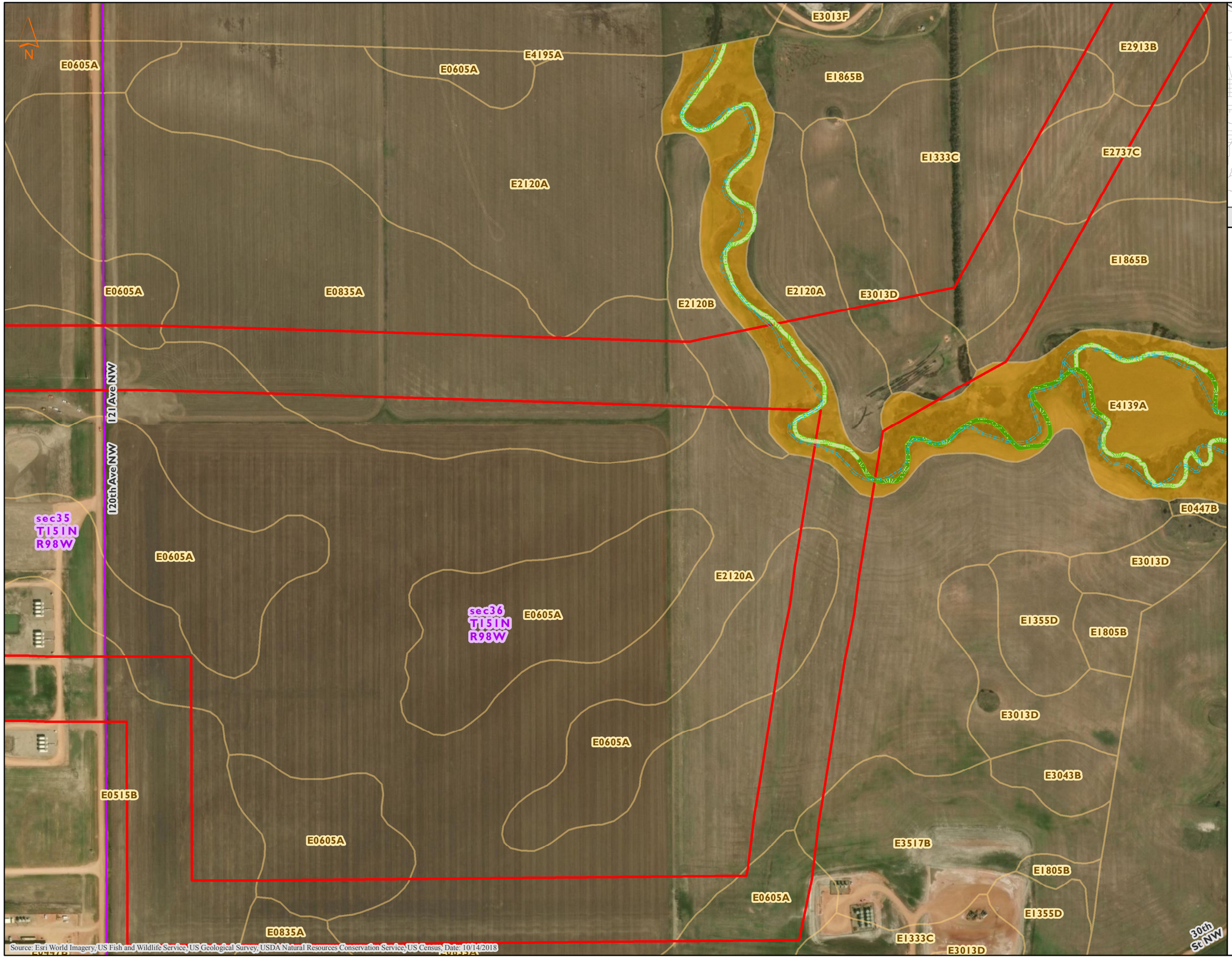
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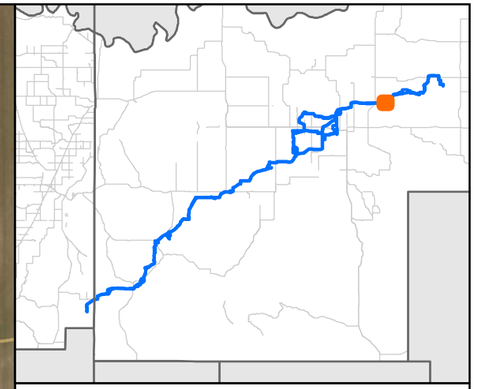
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 73 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





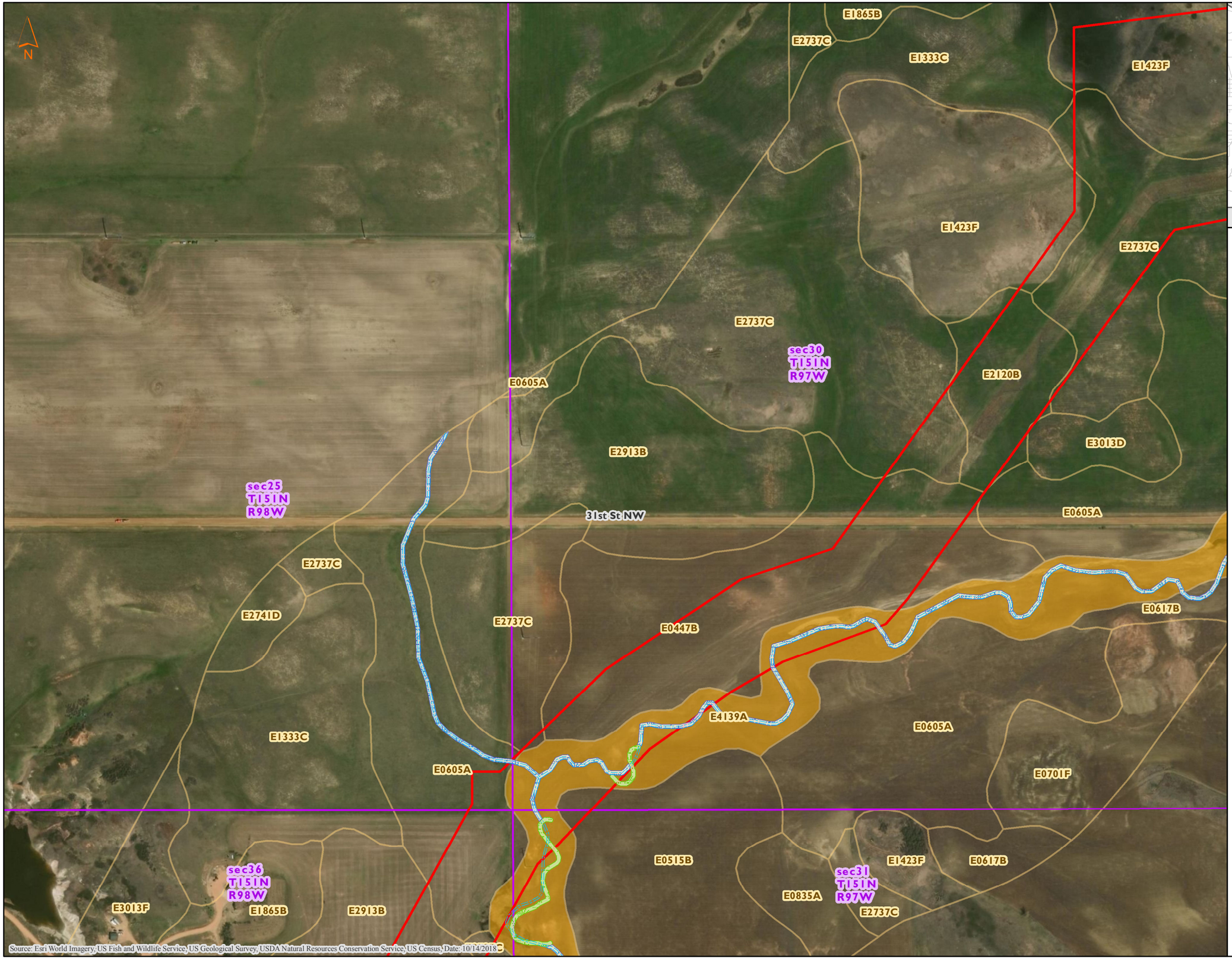
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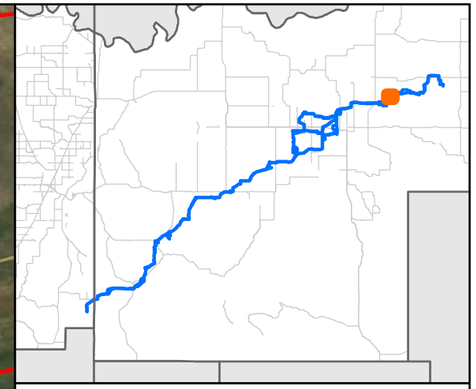
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 74 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet





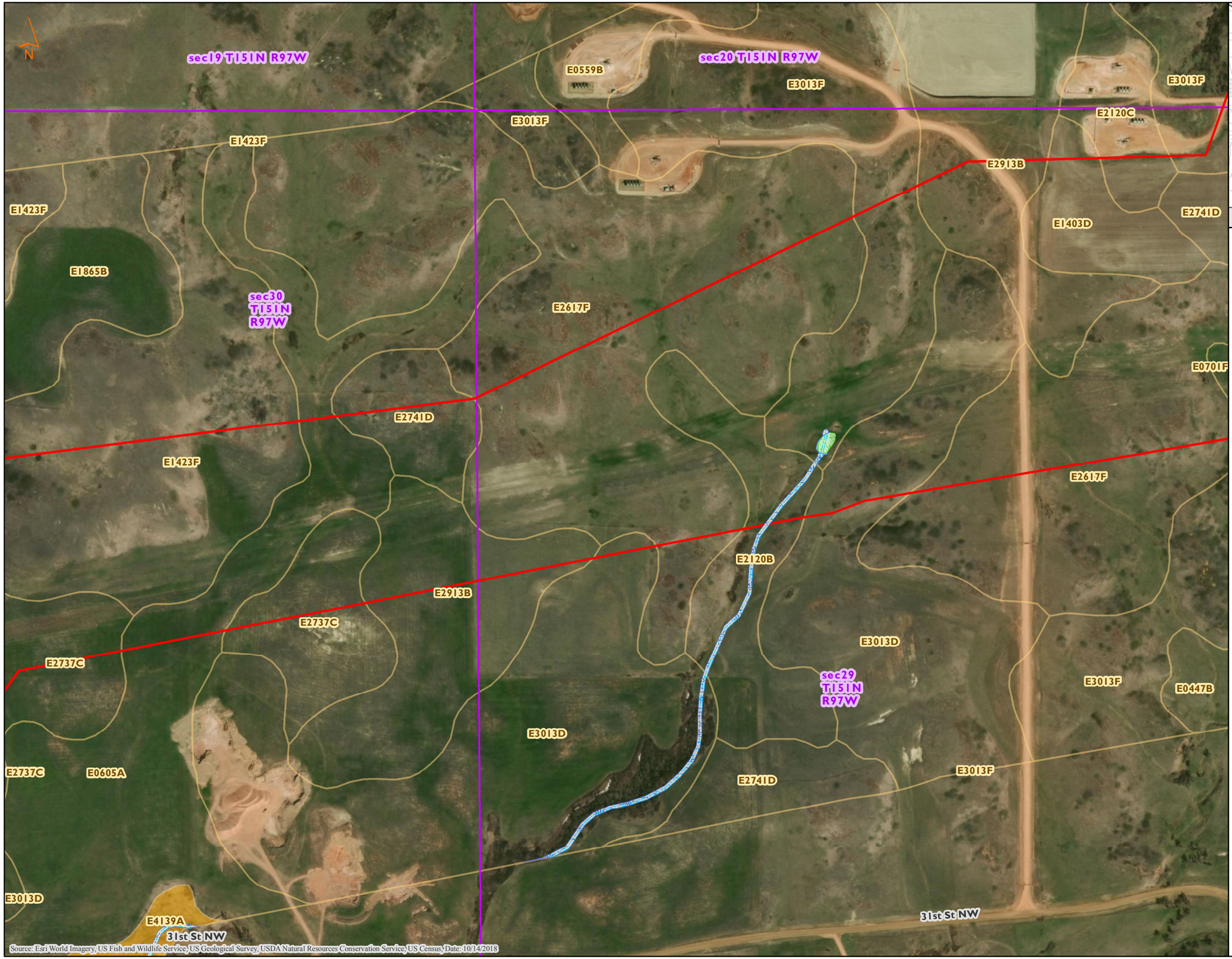
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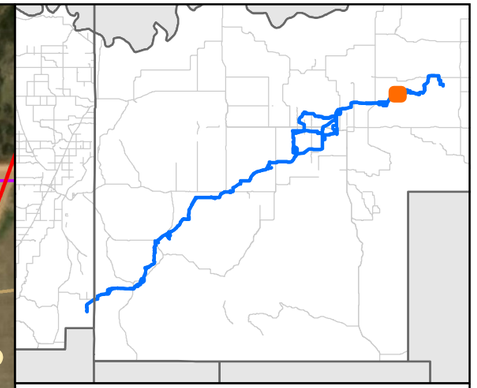
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 75 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





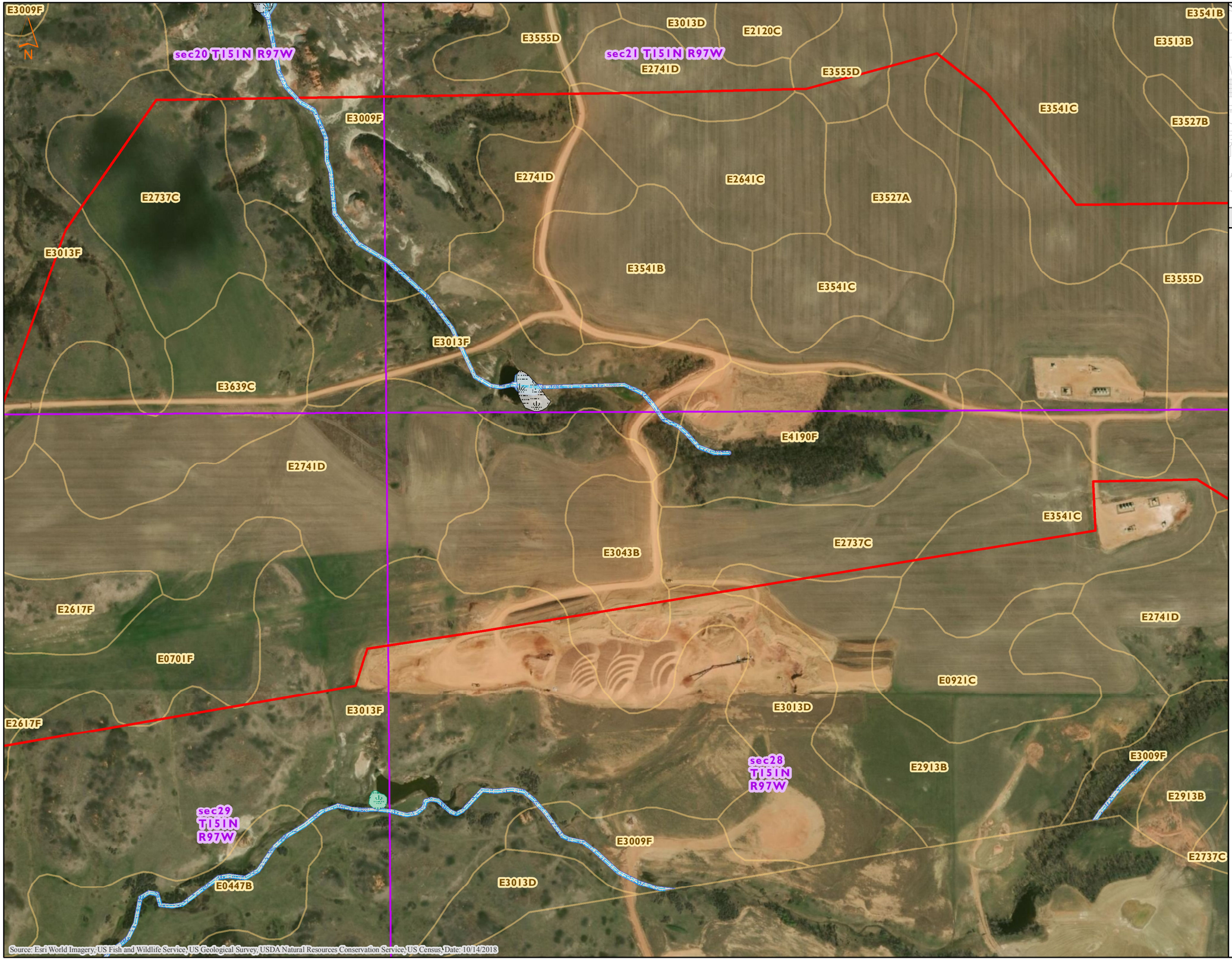
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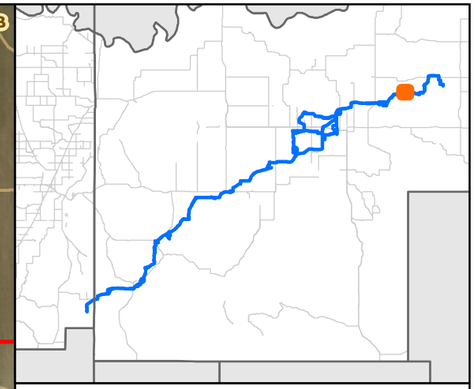
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 76 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





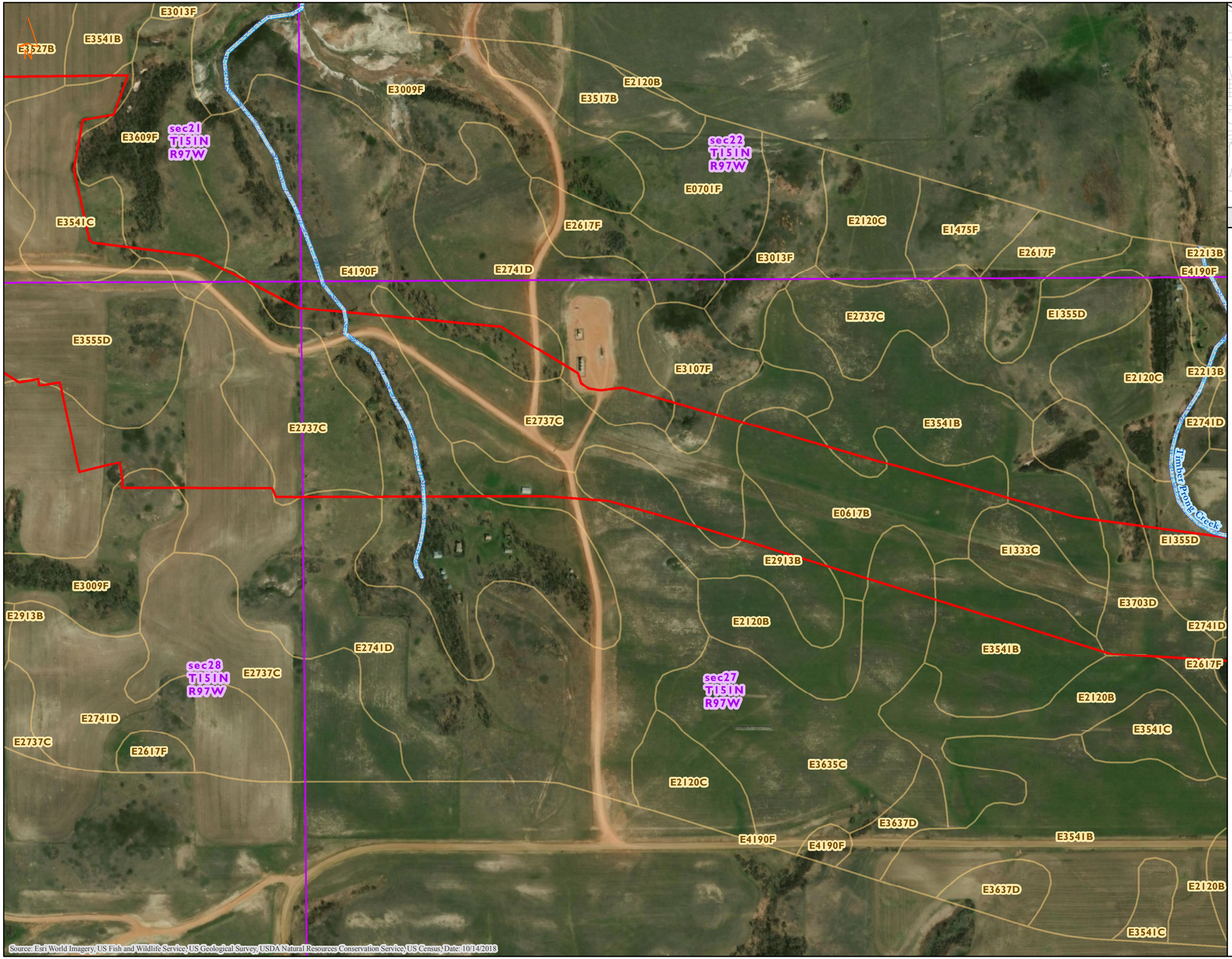
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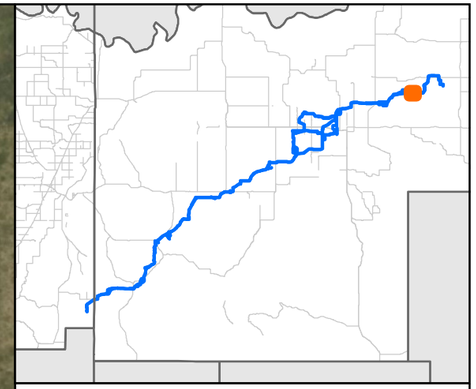
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 77 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





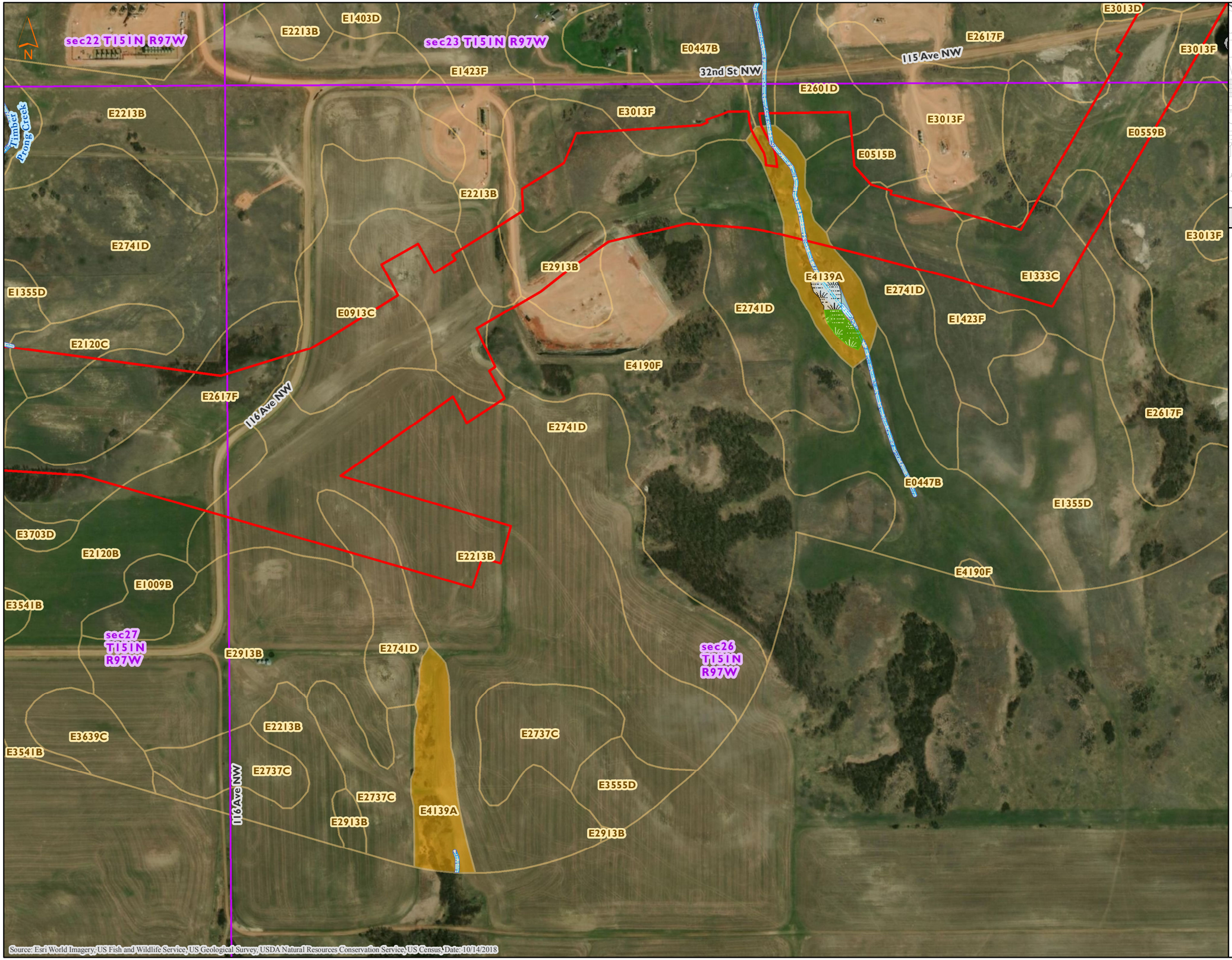
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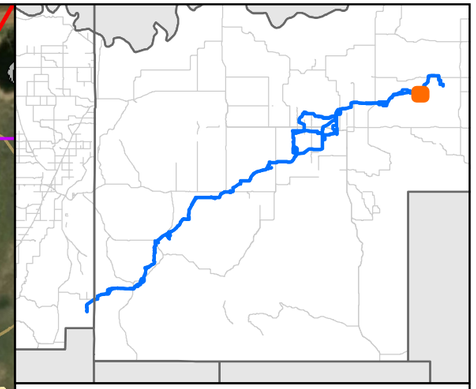
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 78 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





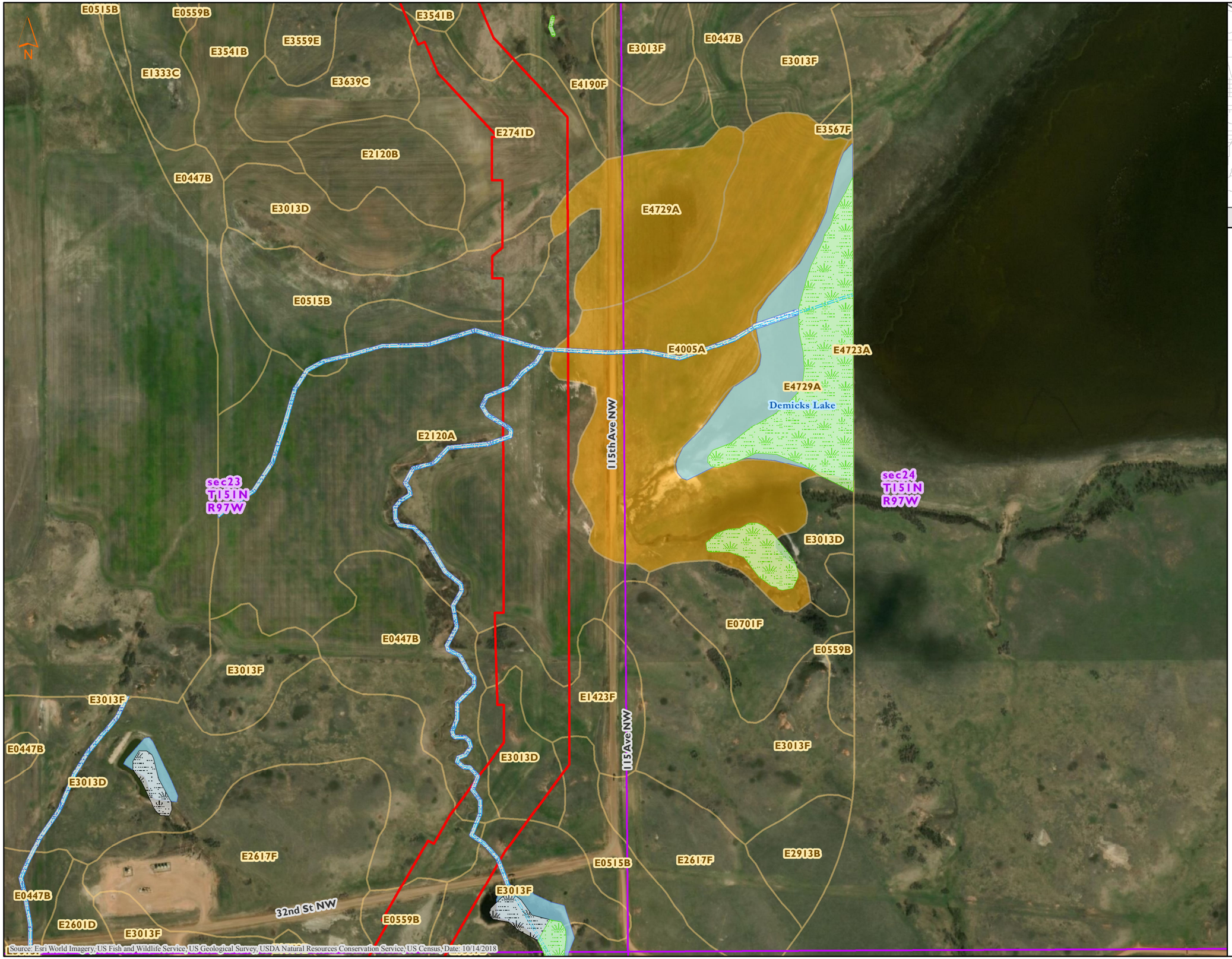
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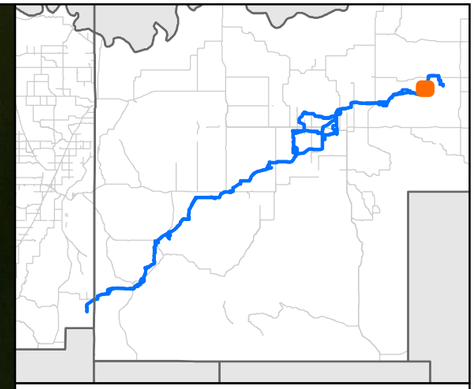
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 79 of 84

NHD Stream
NHD Waterbody
NWI PAB
NWI PEM
NWI PFO
NWI PSS
NWI PUB/PUS
NWI Riverine
Non-Hydric Soil
Hydric Soil
PLSS Section
Environmental Survey Area

0 400 800
Feet





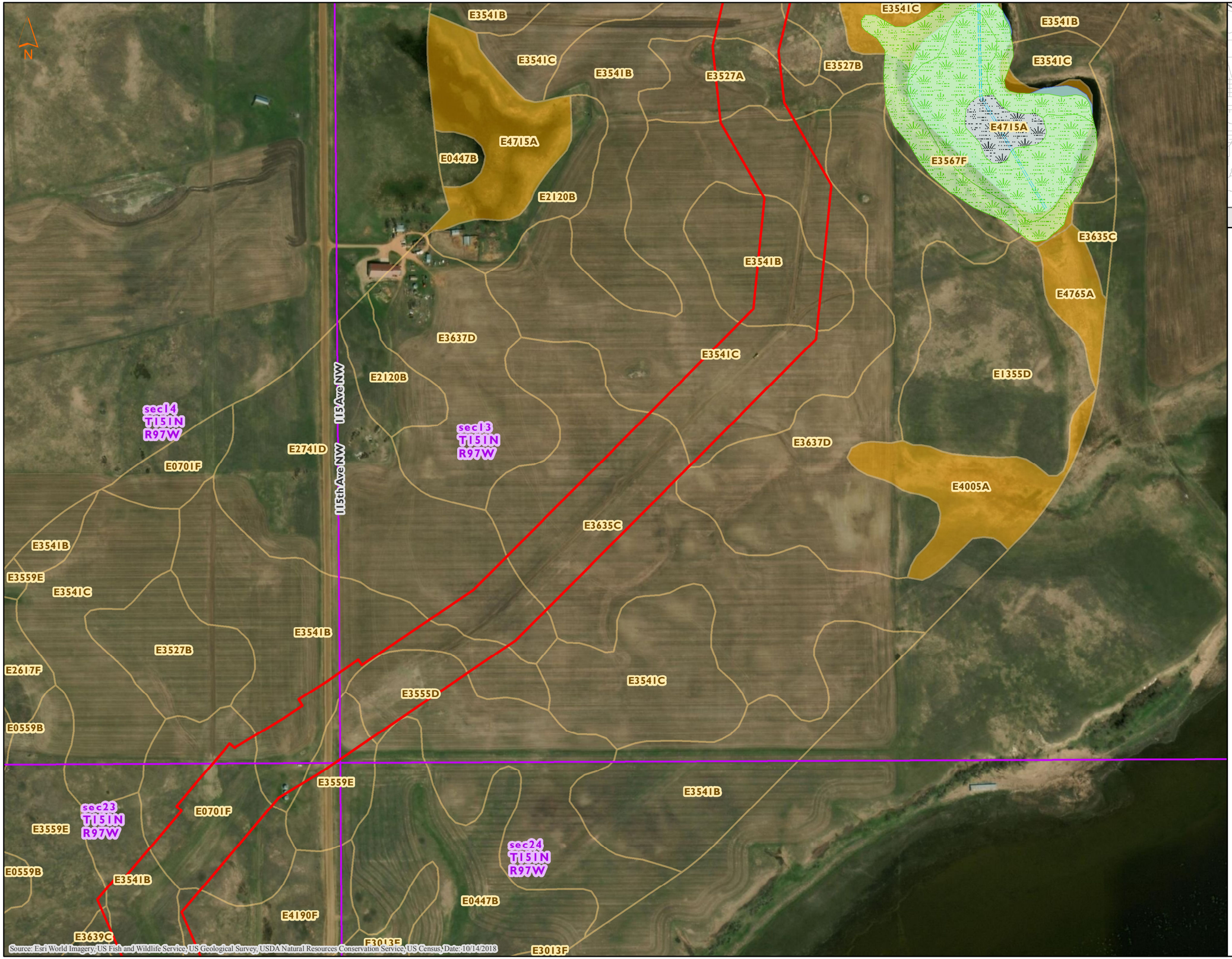
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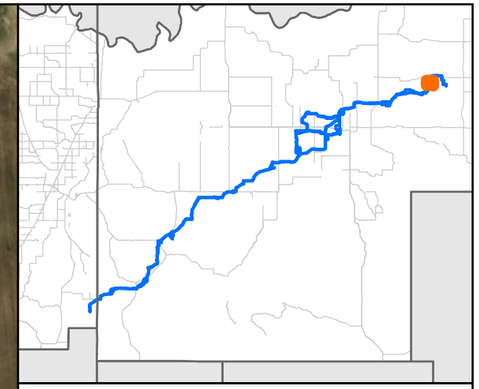
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 80 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





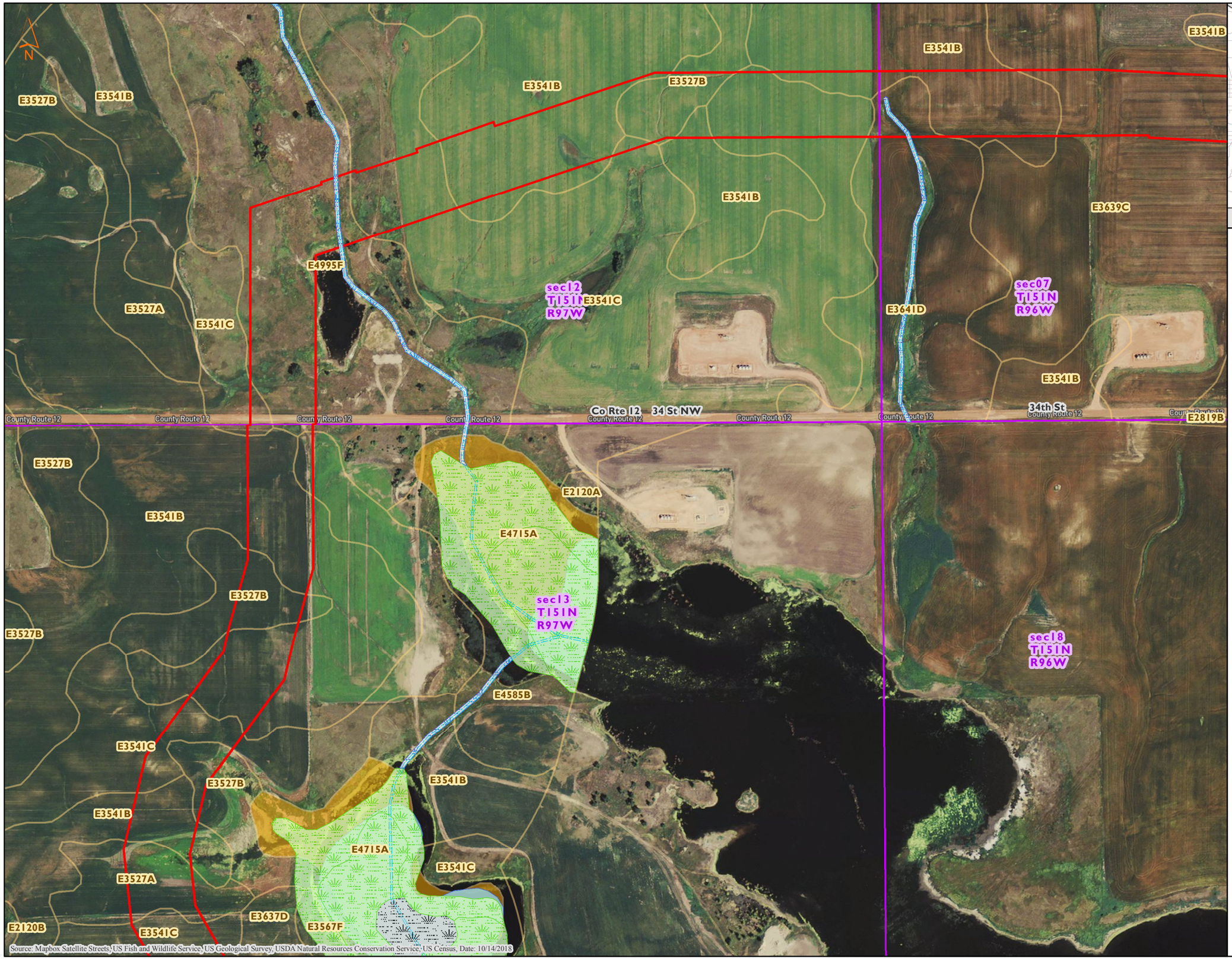
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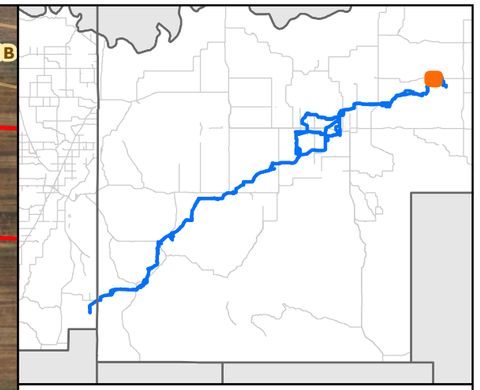
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 81 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





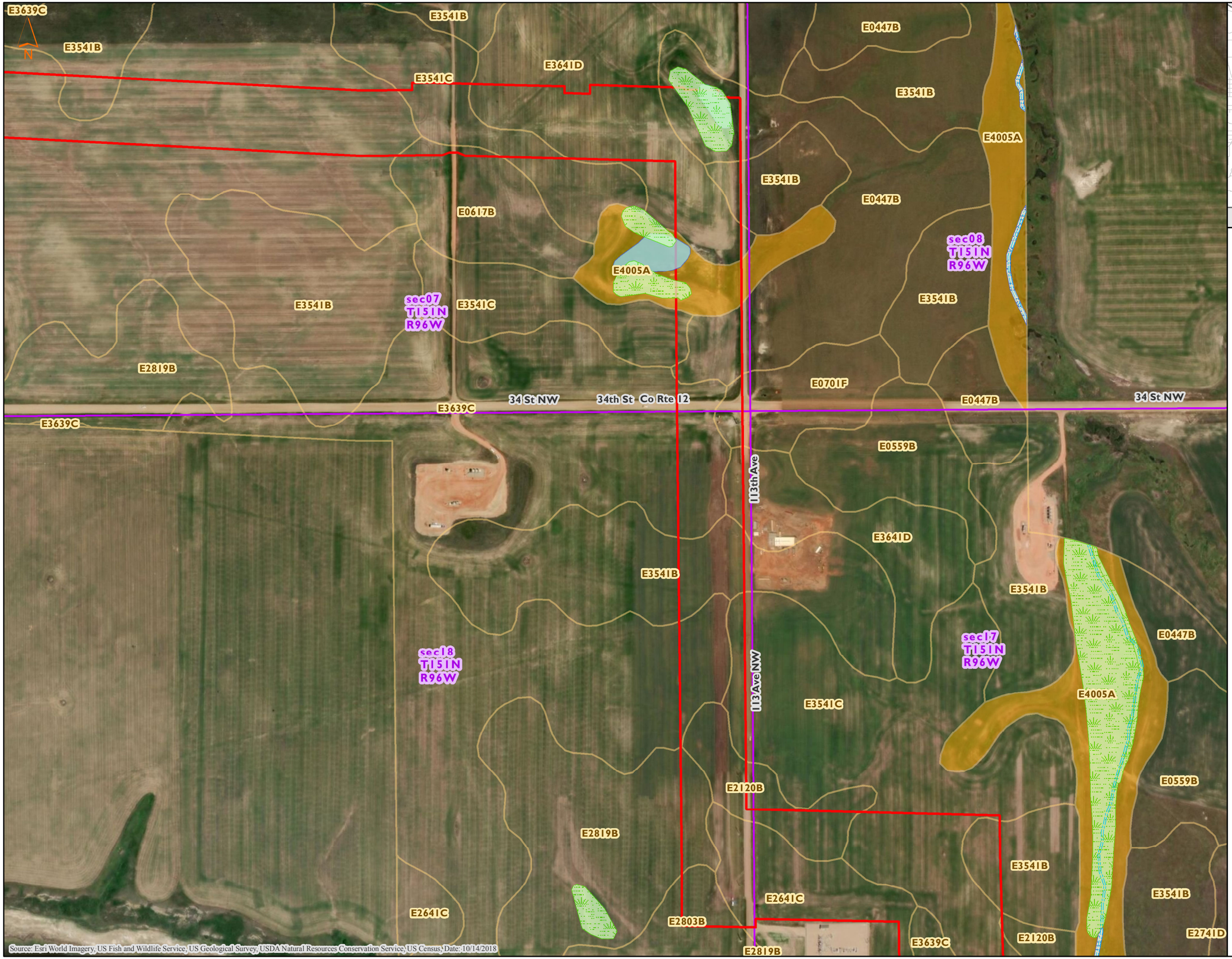
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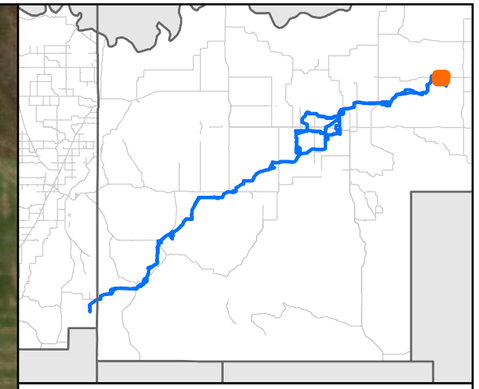
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 82 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





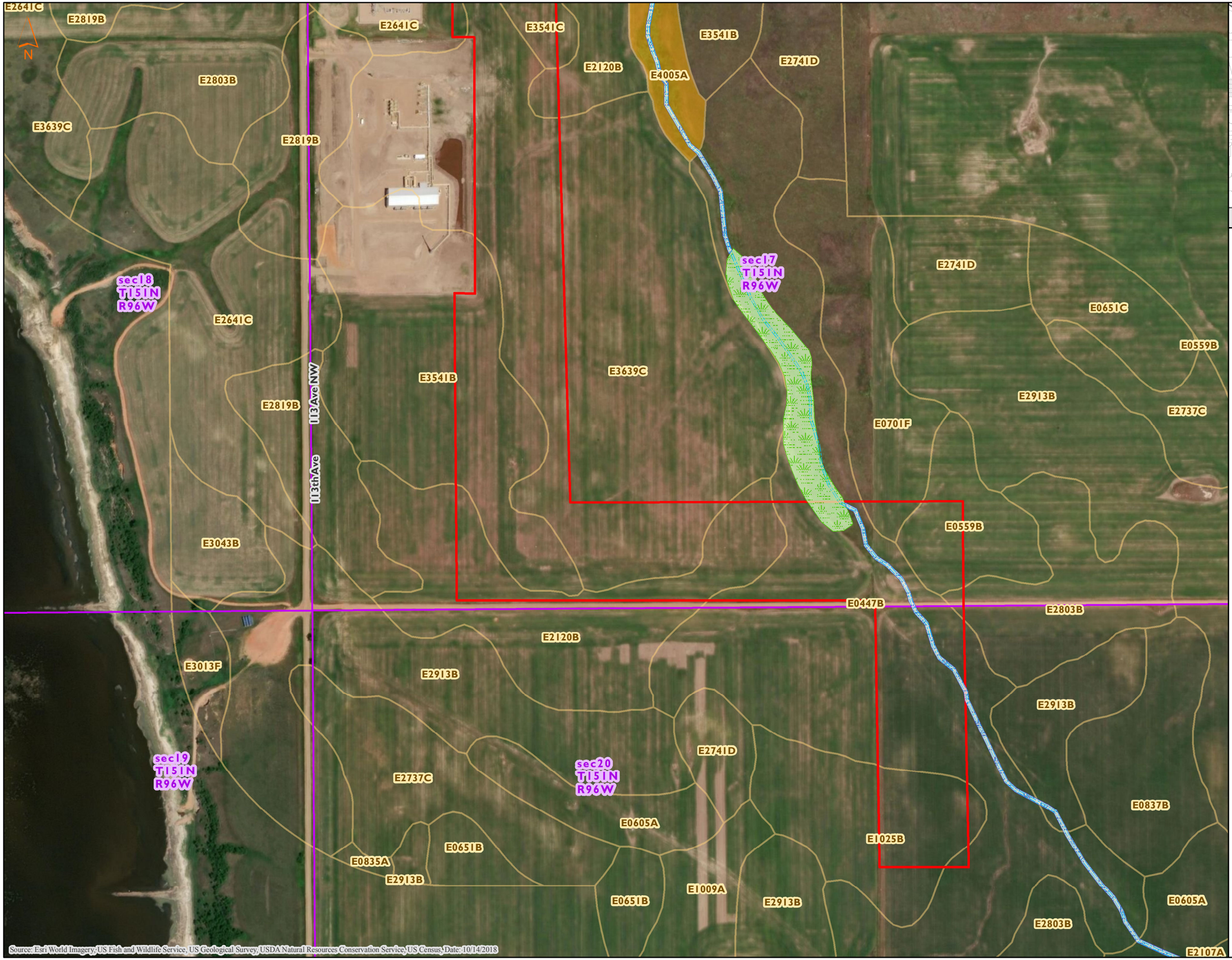
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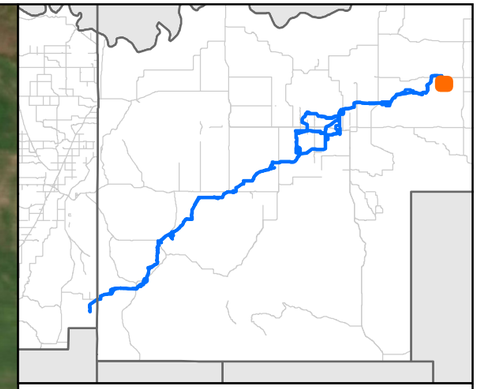
NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 83 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





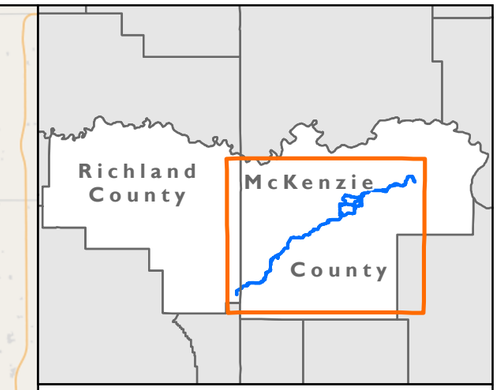
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NHD/NWI Features, SSURGO Soils
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 84 of 84

- NHD Stream
- NHD Waterbody
- NWI PAB
- NWI PEM
- NWI PFO
- NWI PSS
- NWI PUB/PUS
- NWI Riverine
- Non-Hydric Soil
- Hydric Soil
- PLSS Section
- Environmental Survey Area

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Feet



Project Overview
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

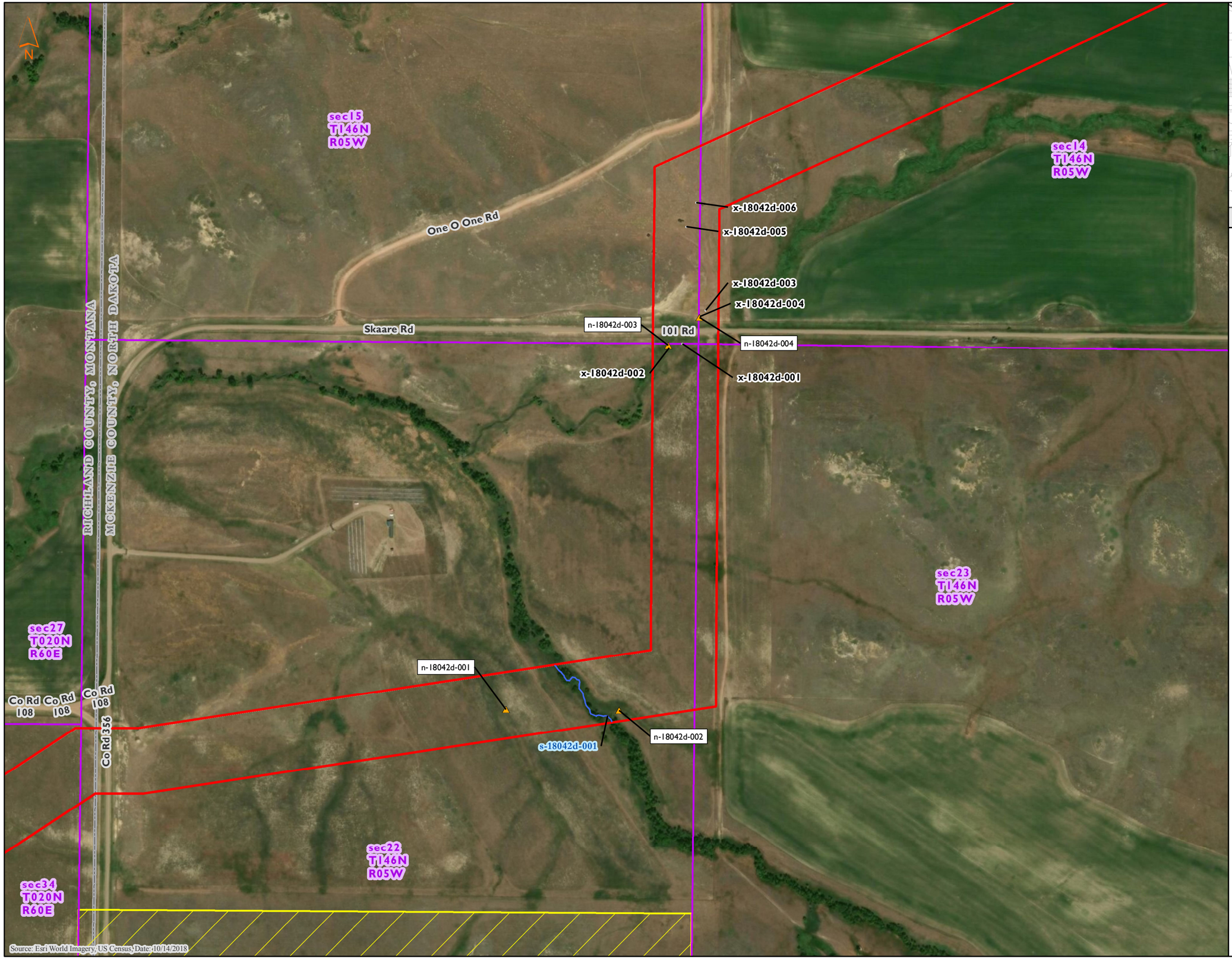
Figure 1 of 84

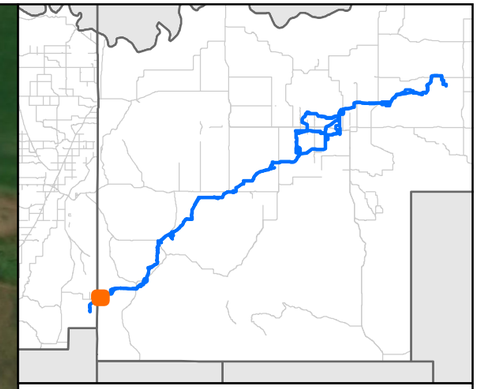
Delineated Features Mapbook

Environmental Survey Area

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Miles

Source: OpenStreetMap, US Census, Date: 10/14/2018





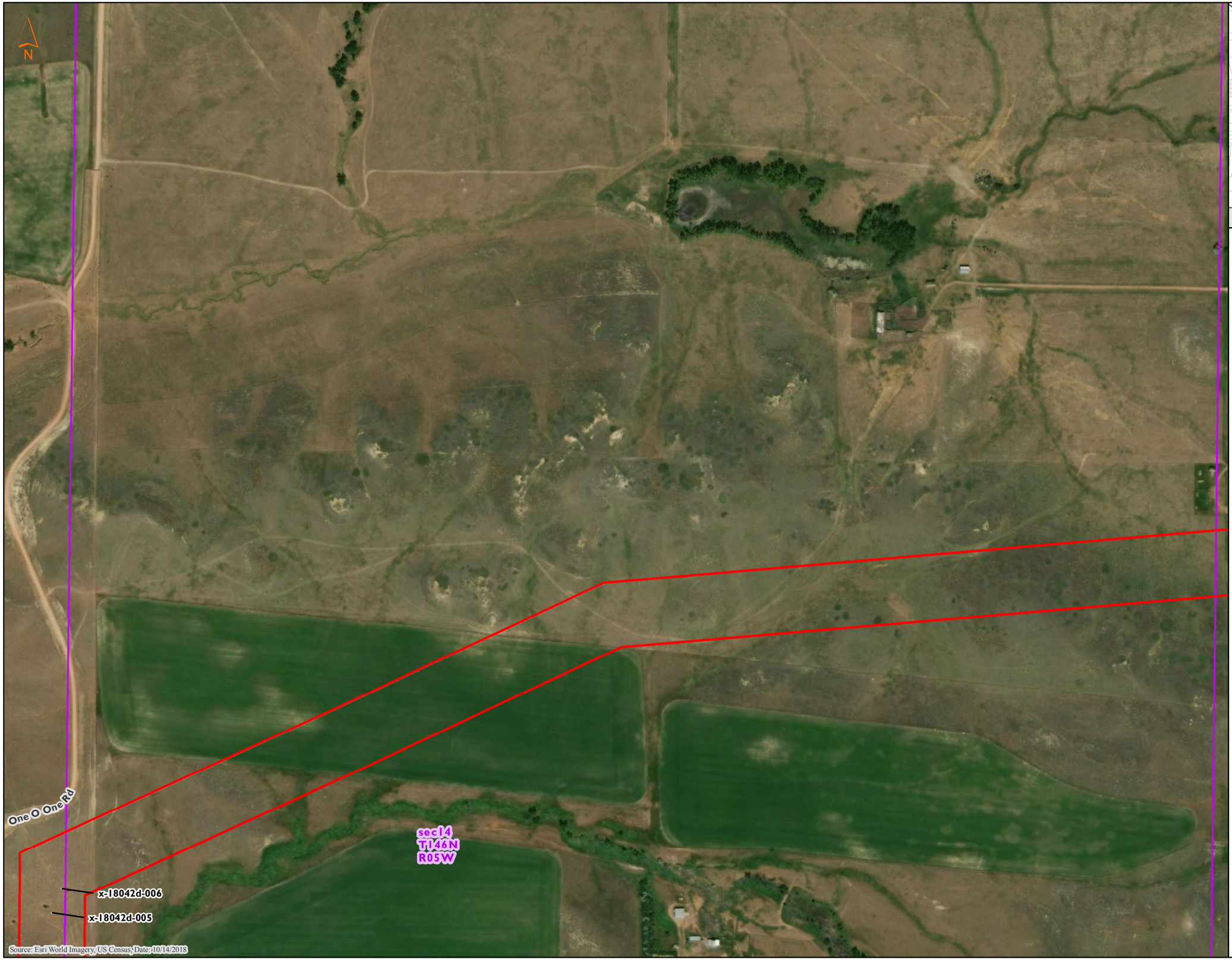
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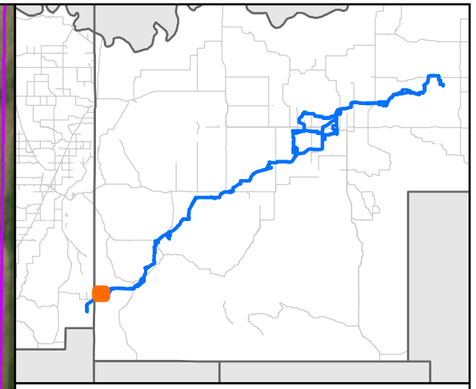
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 2 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





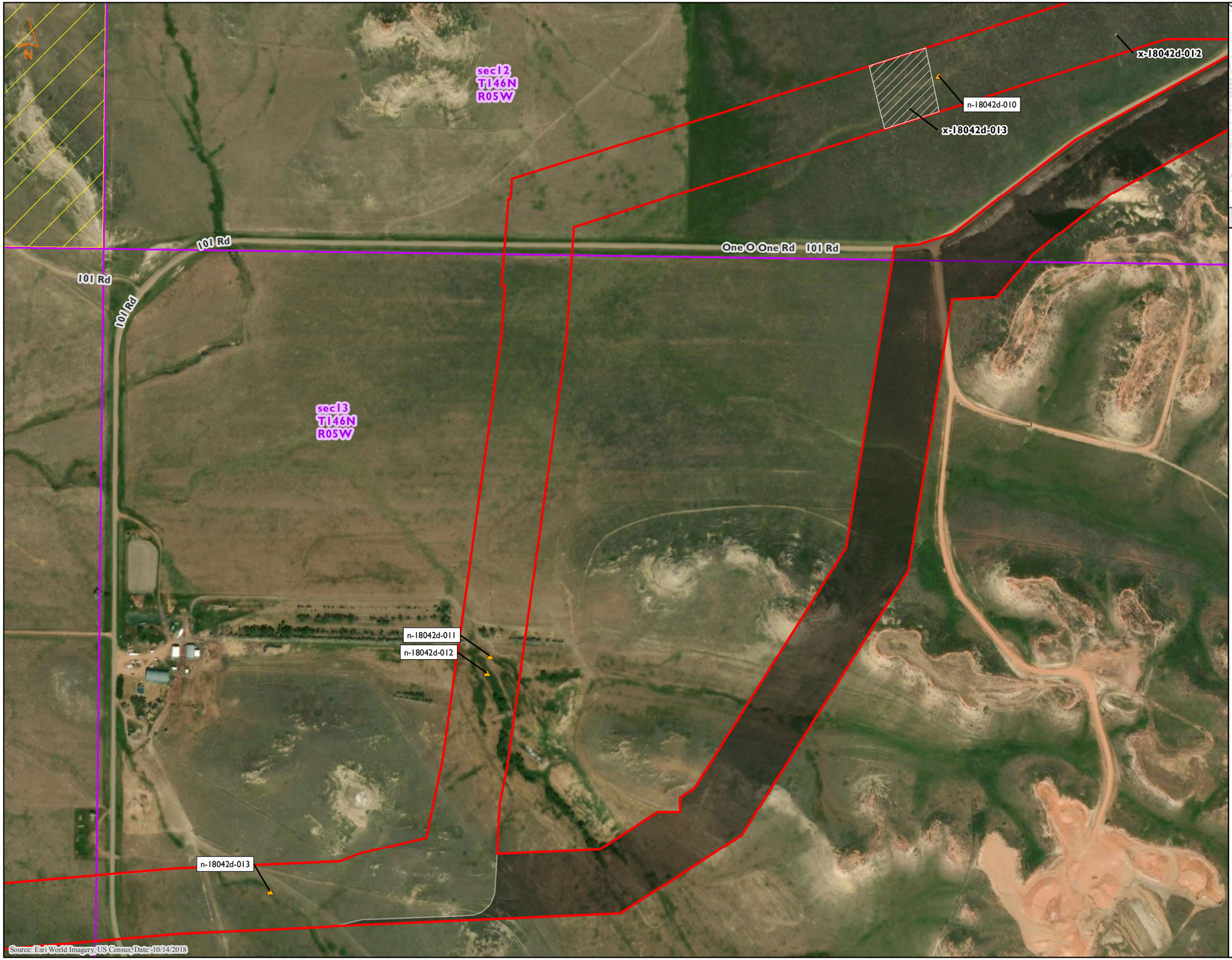
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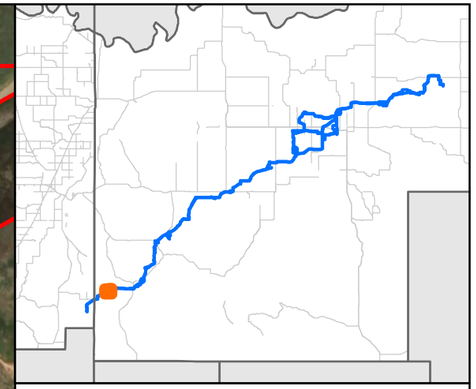
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 3 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





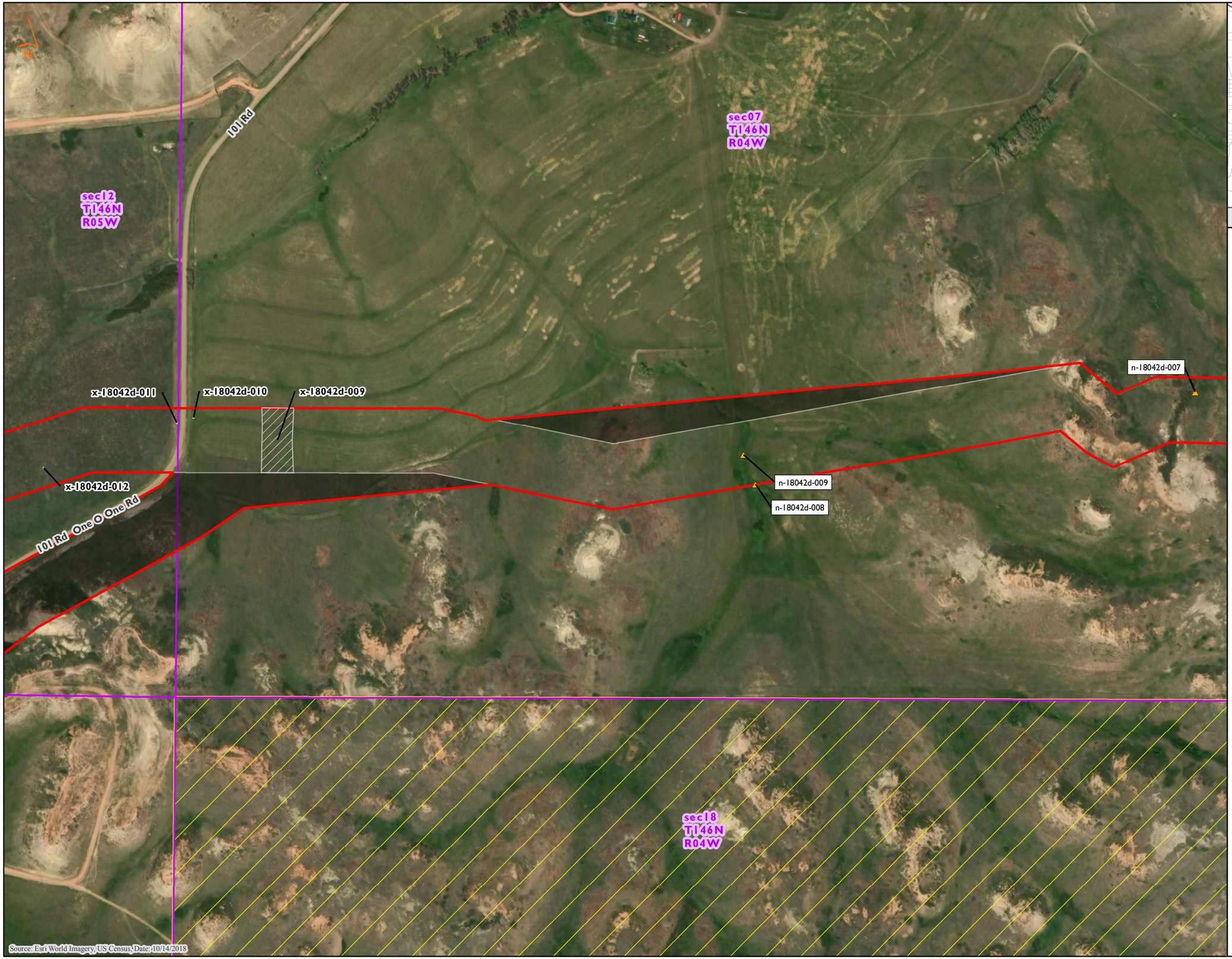
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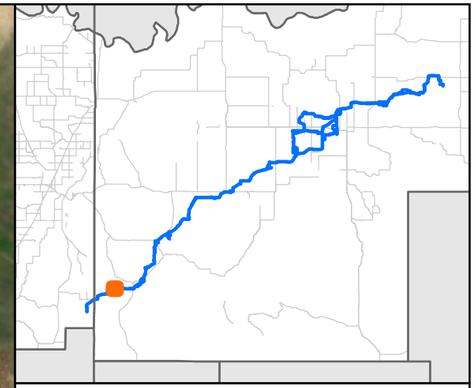
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 4 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





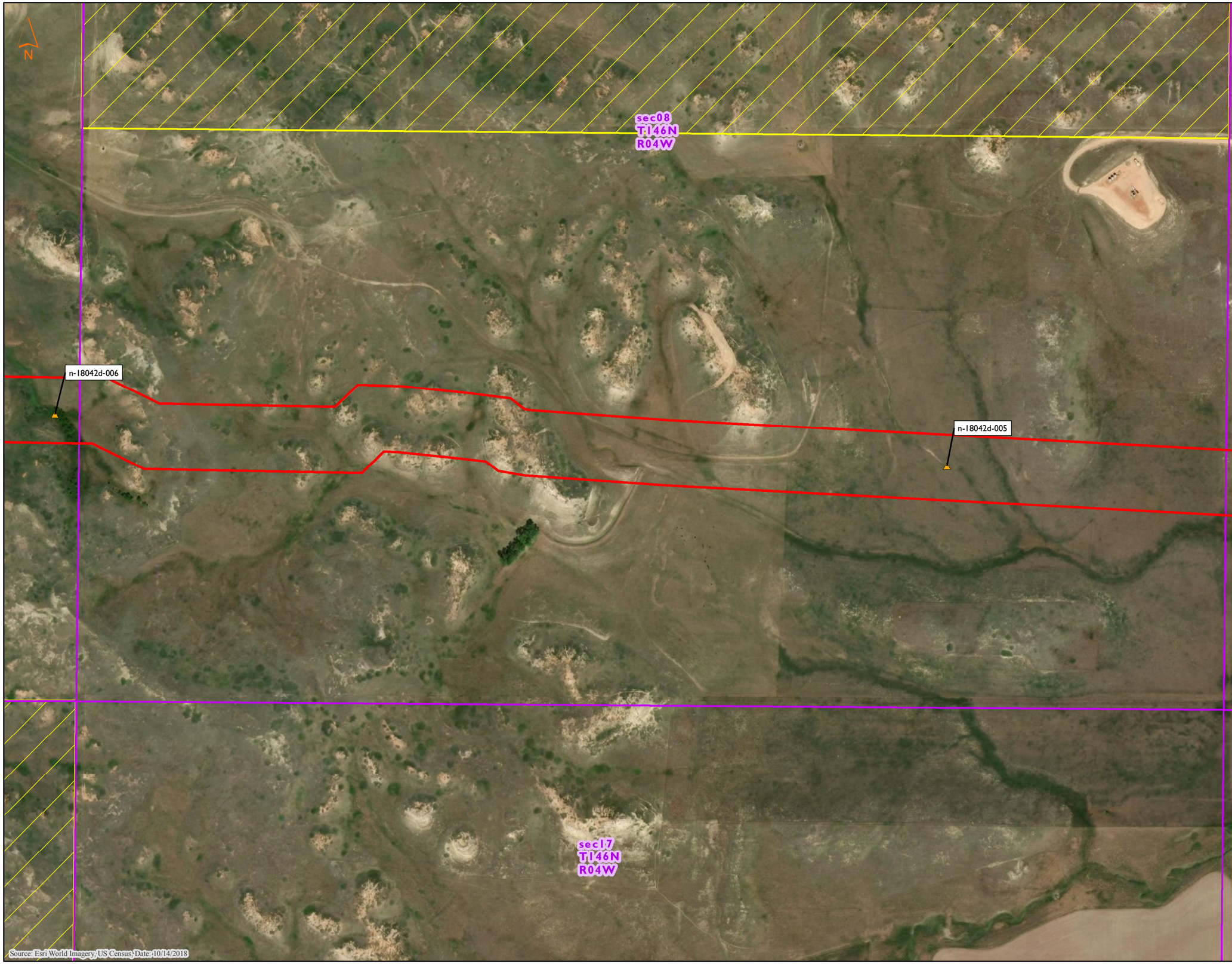
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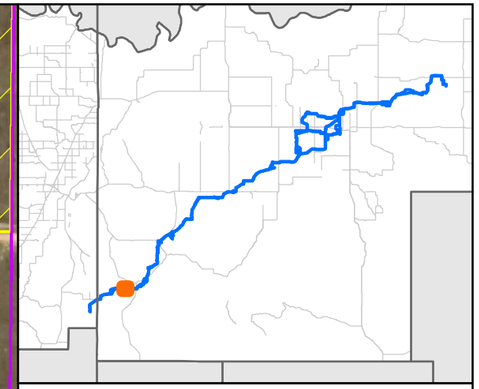
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 5 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





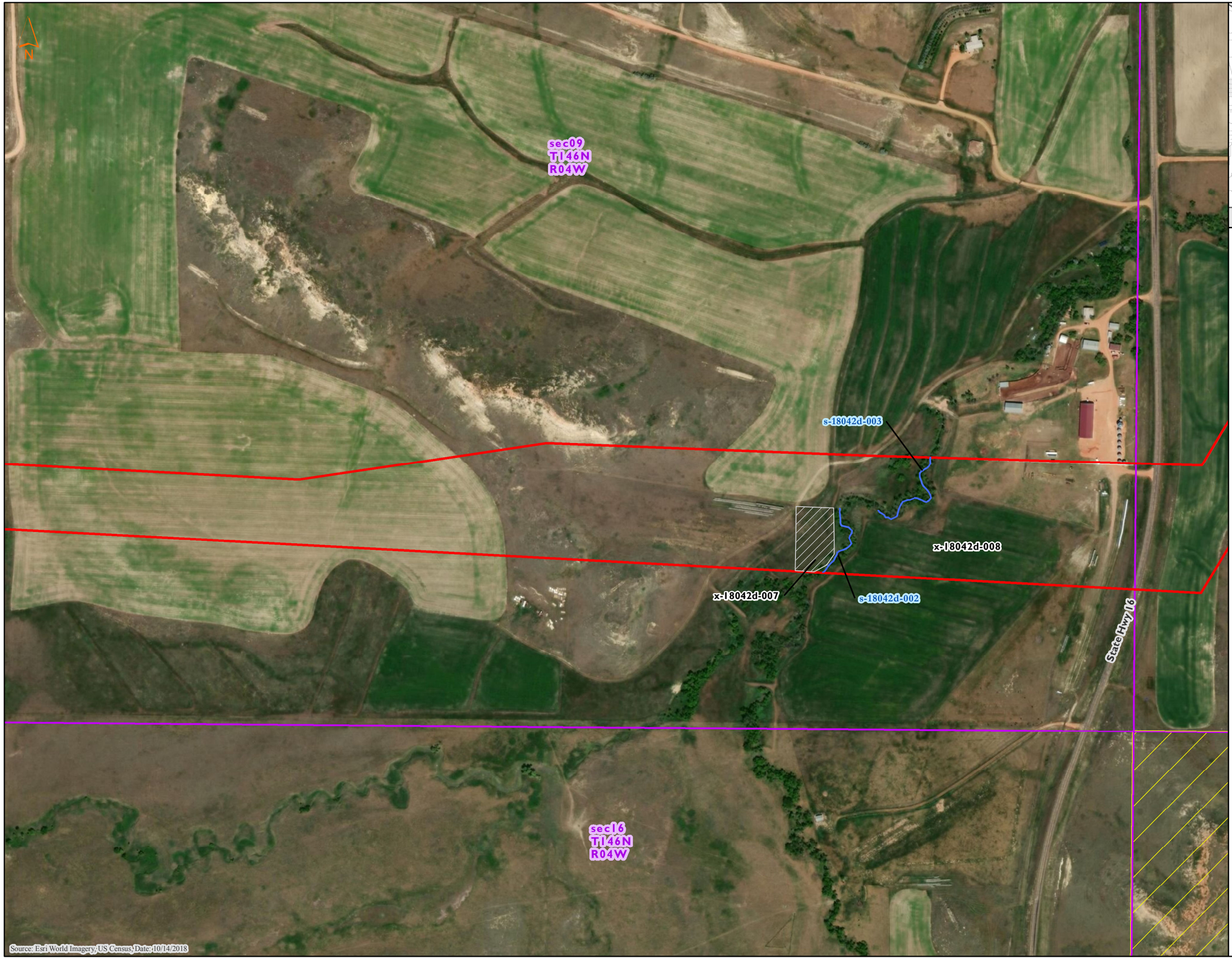
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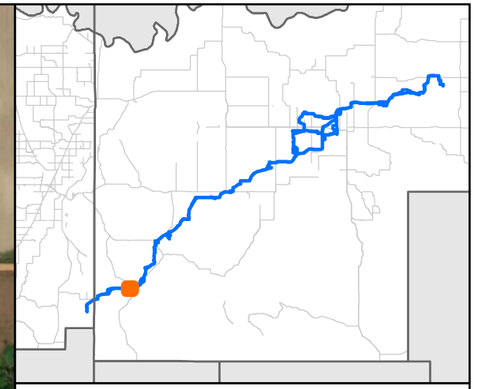
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 6 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





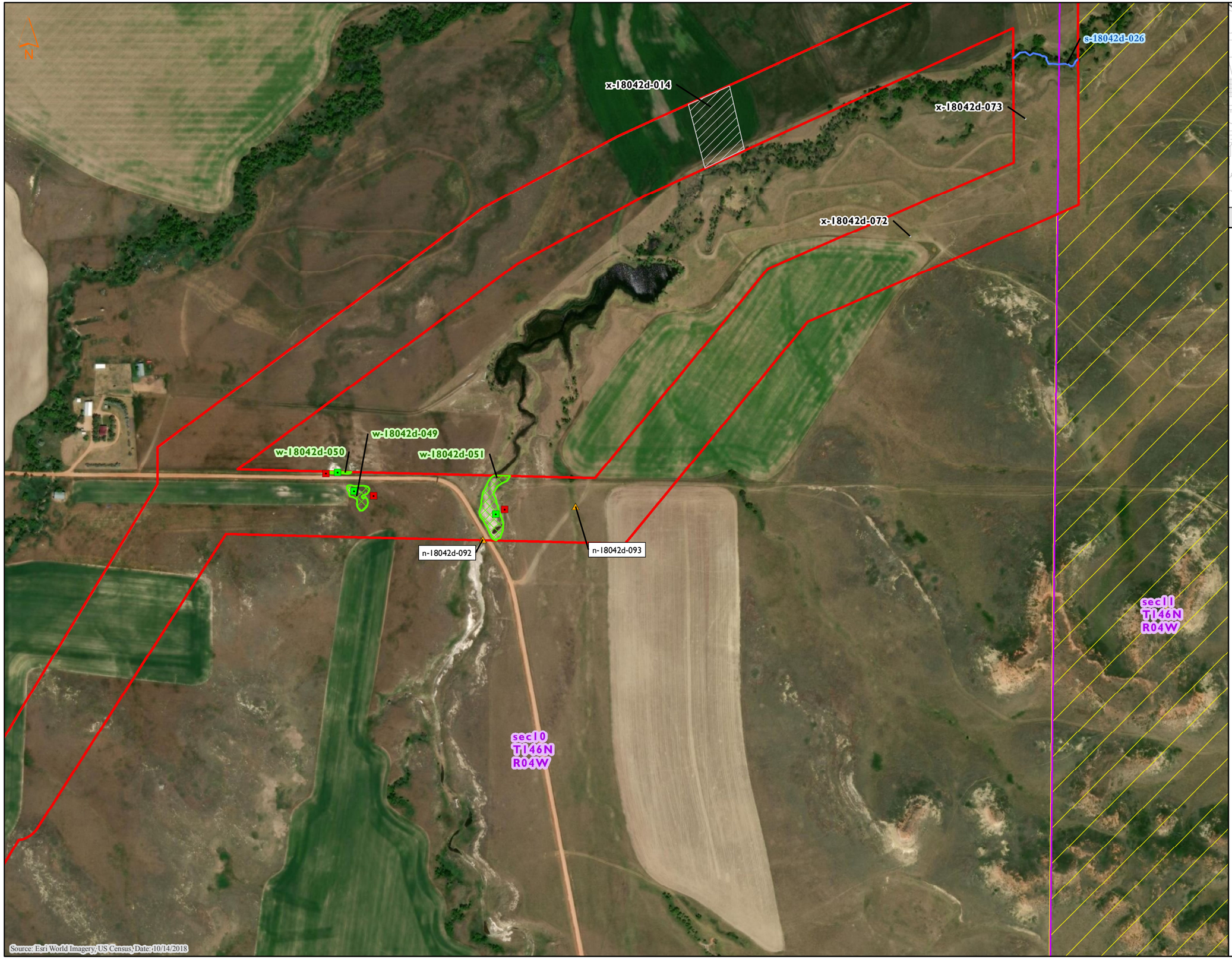
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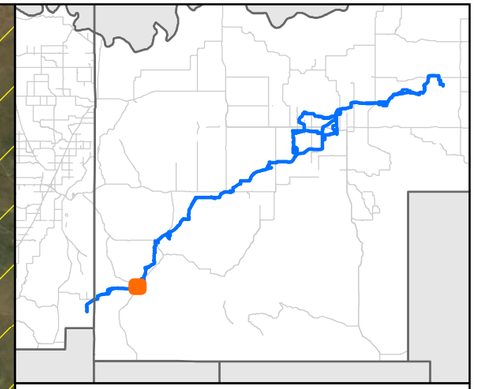
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 7 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





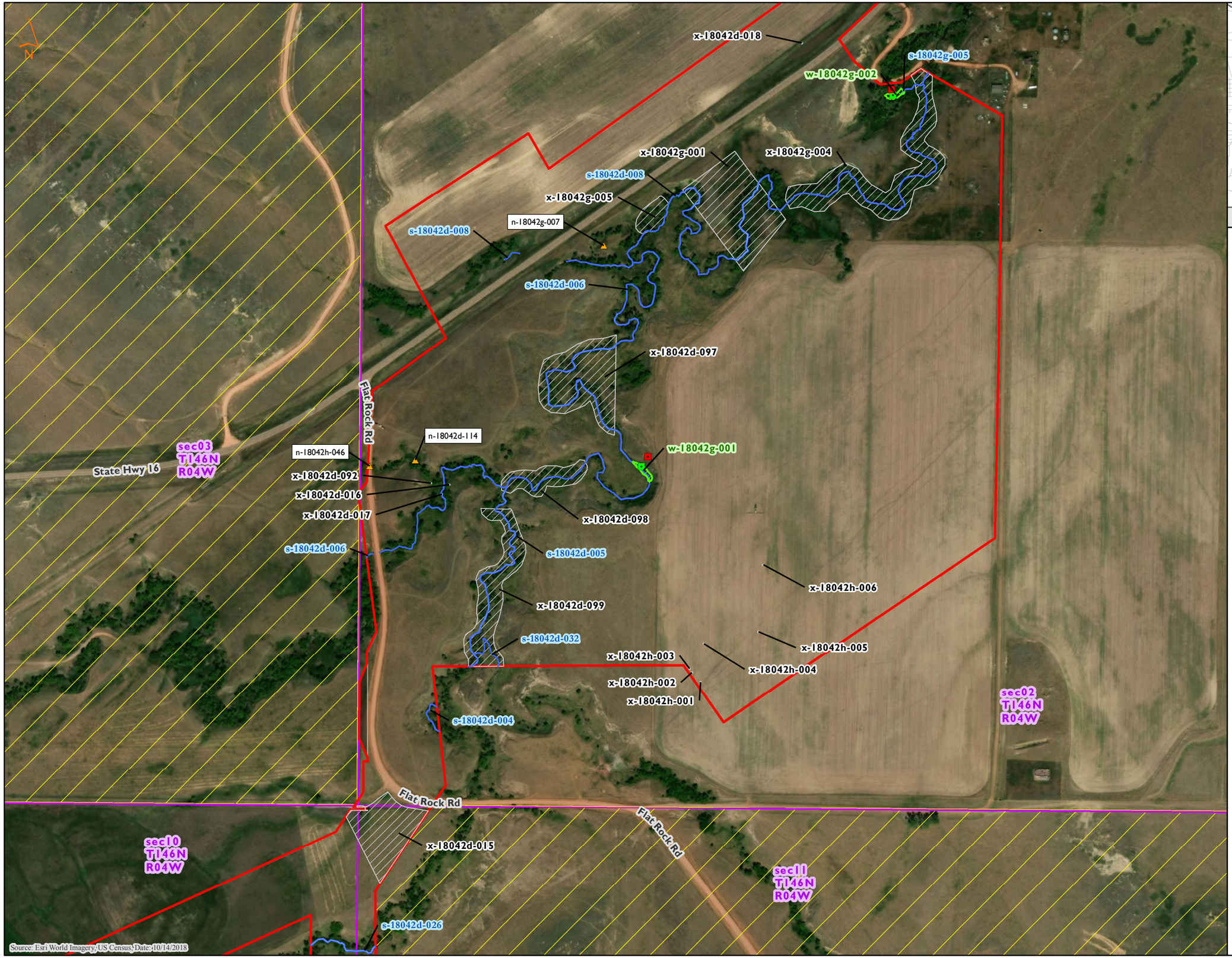
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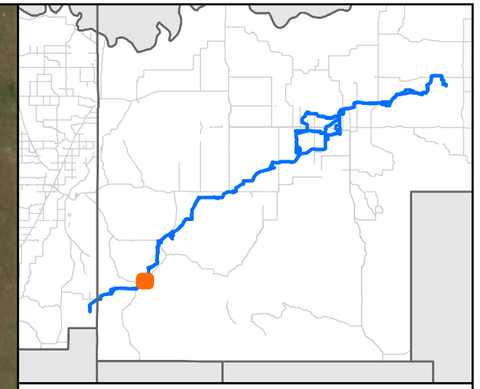
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 8 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





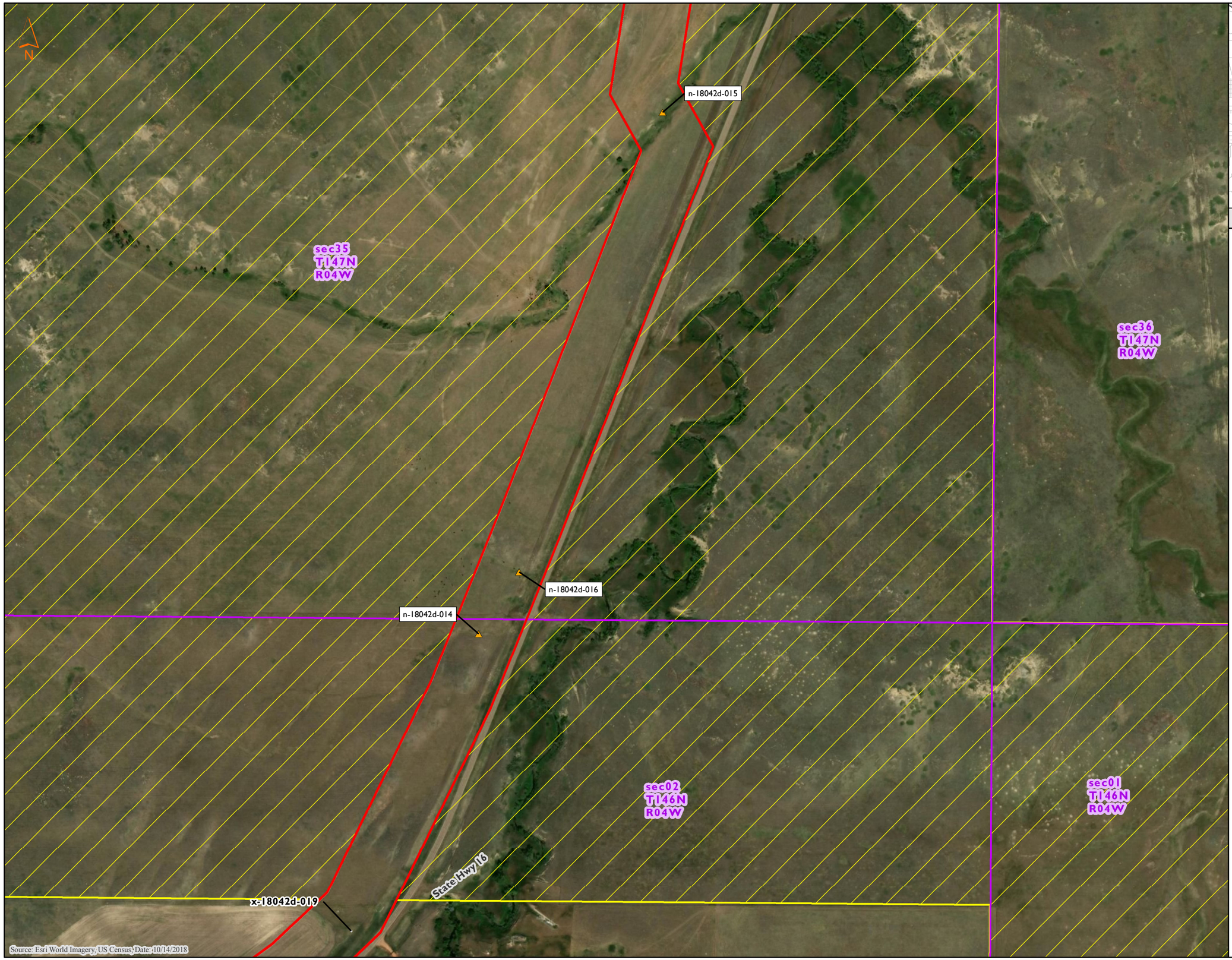
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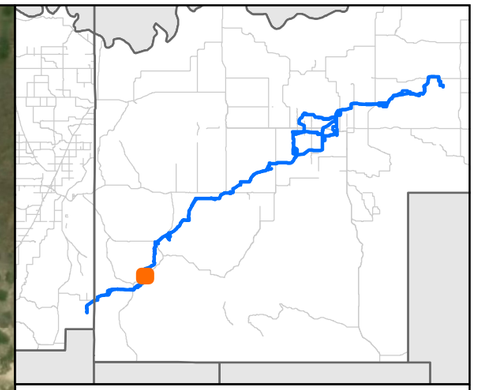
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 9 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





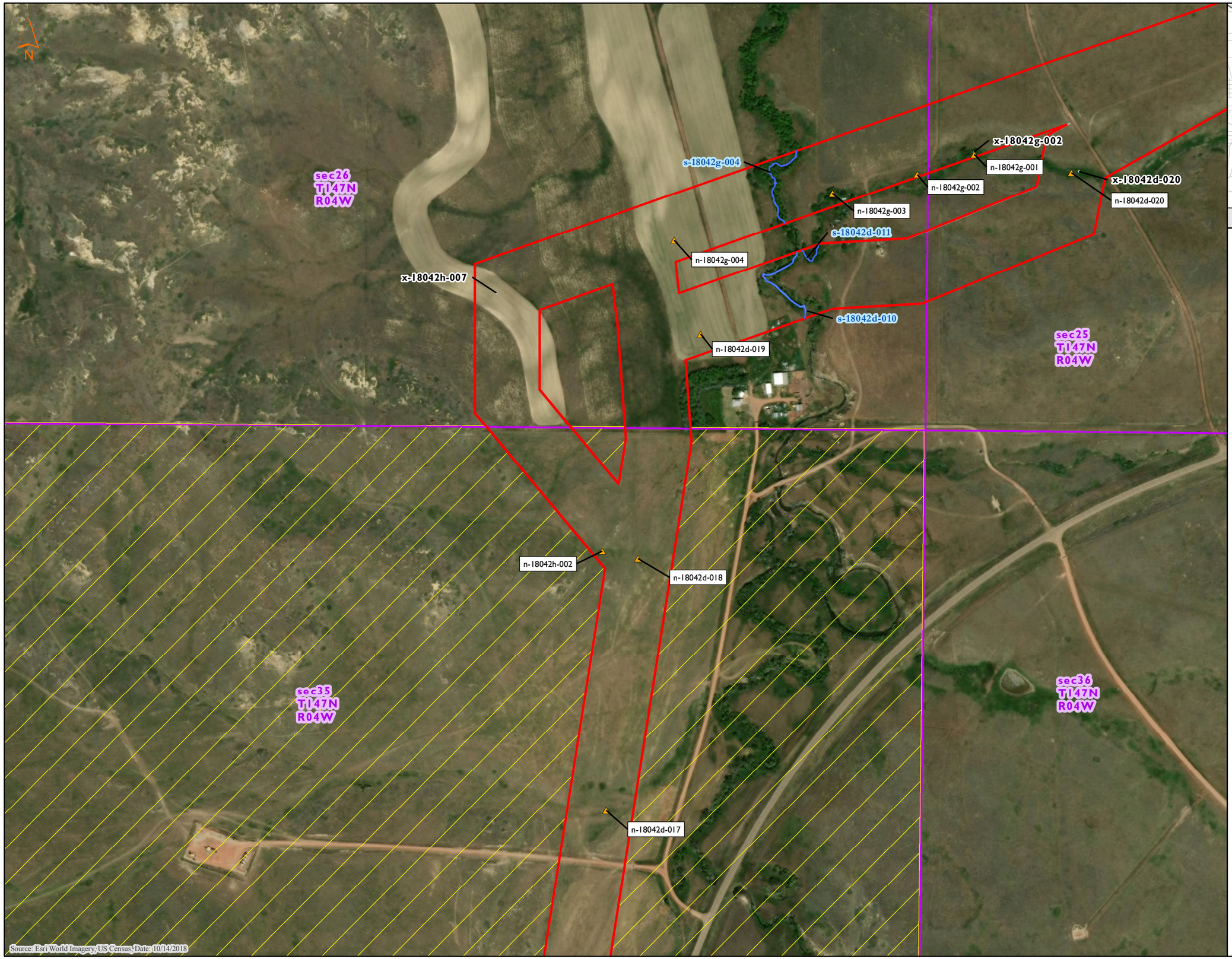
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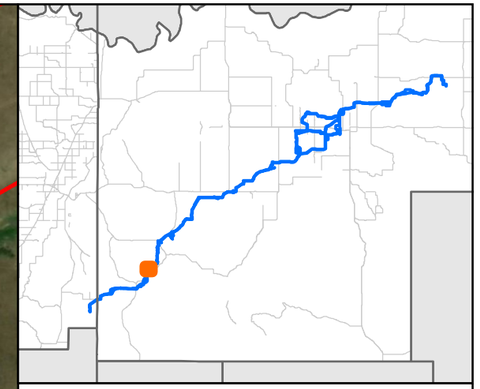
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 10 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
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- PSS Wetland
- PUB Wetland
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0 400 800
Feet





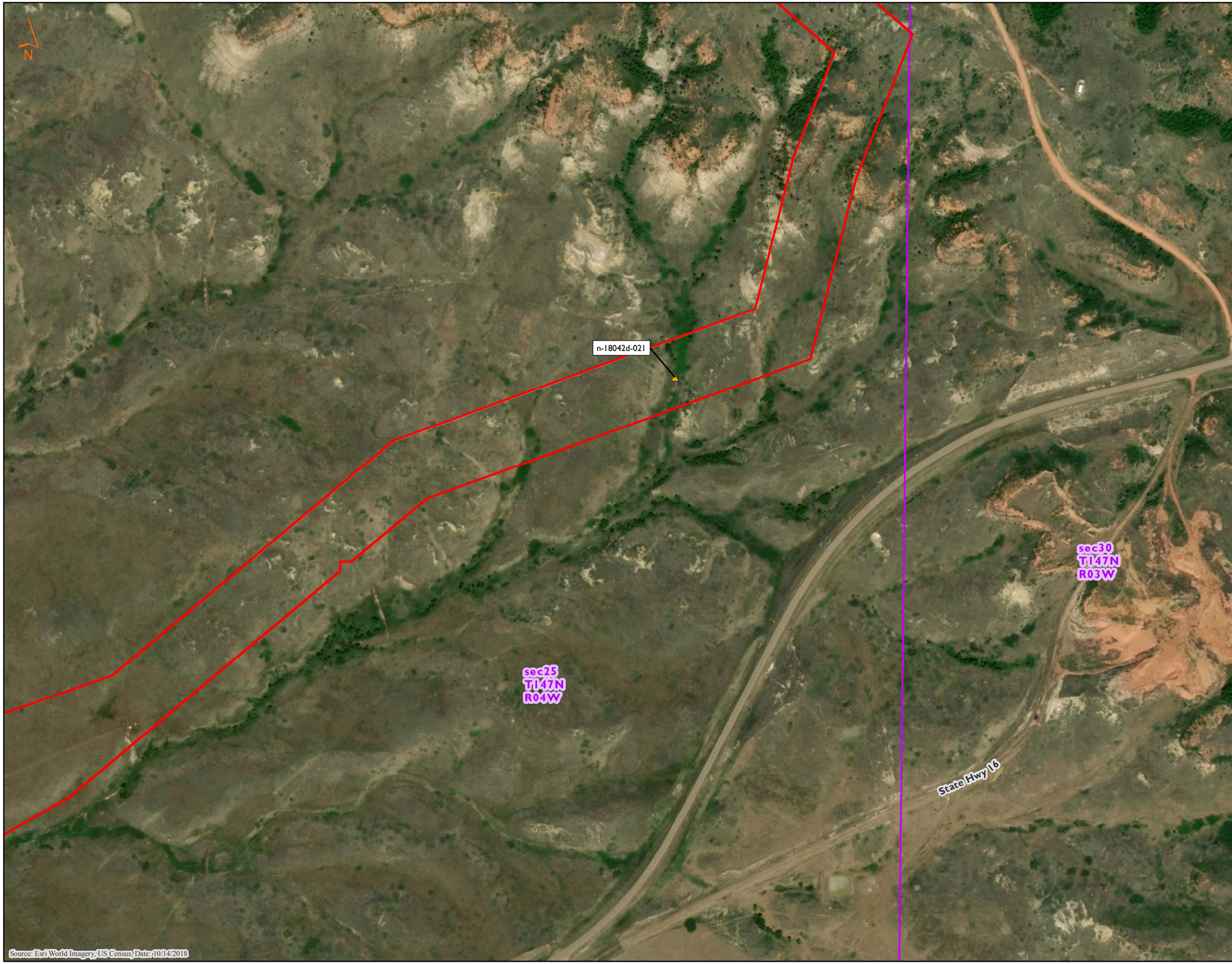
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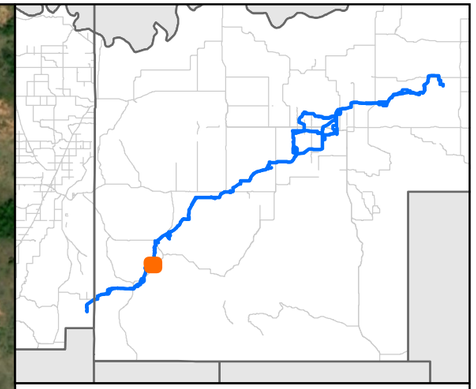
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 11 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





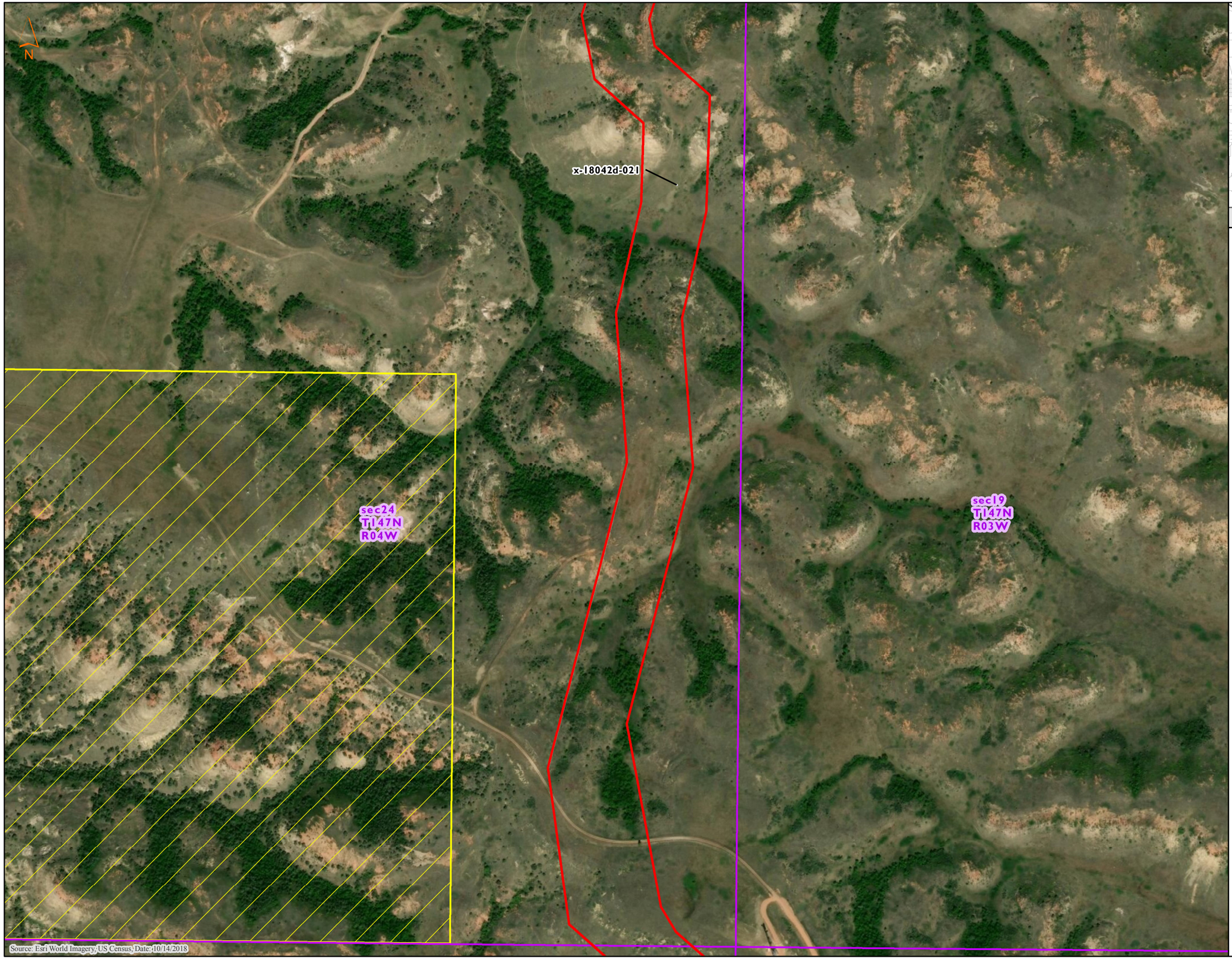
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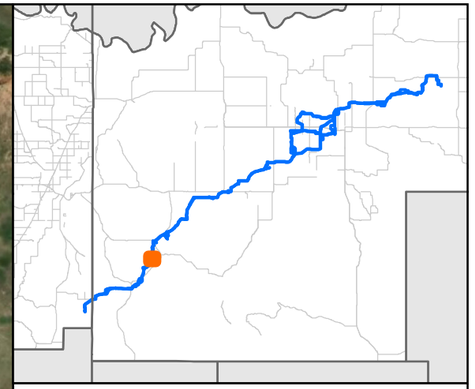
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 12 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





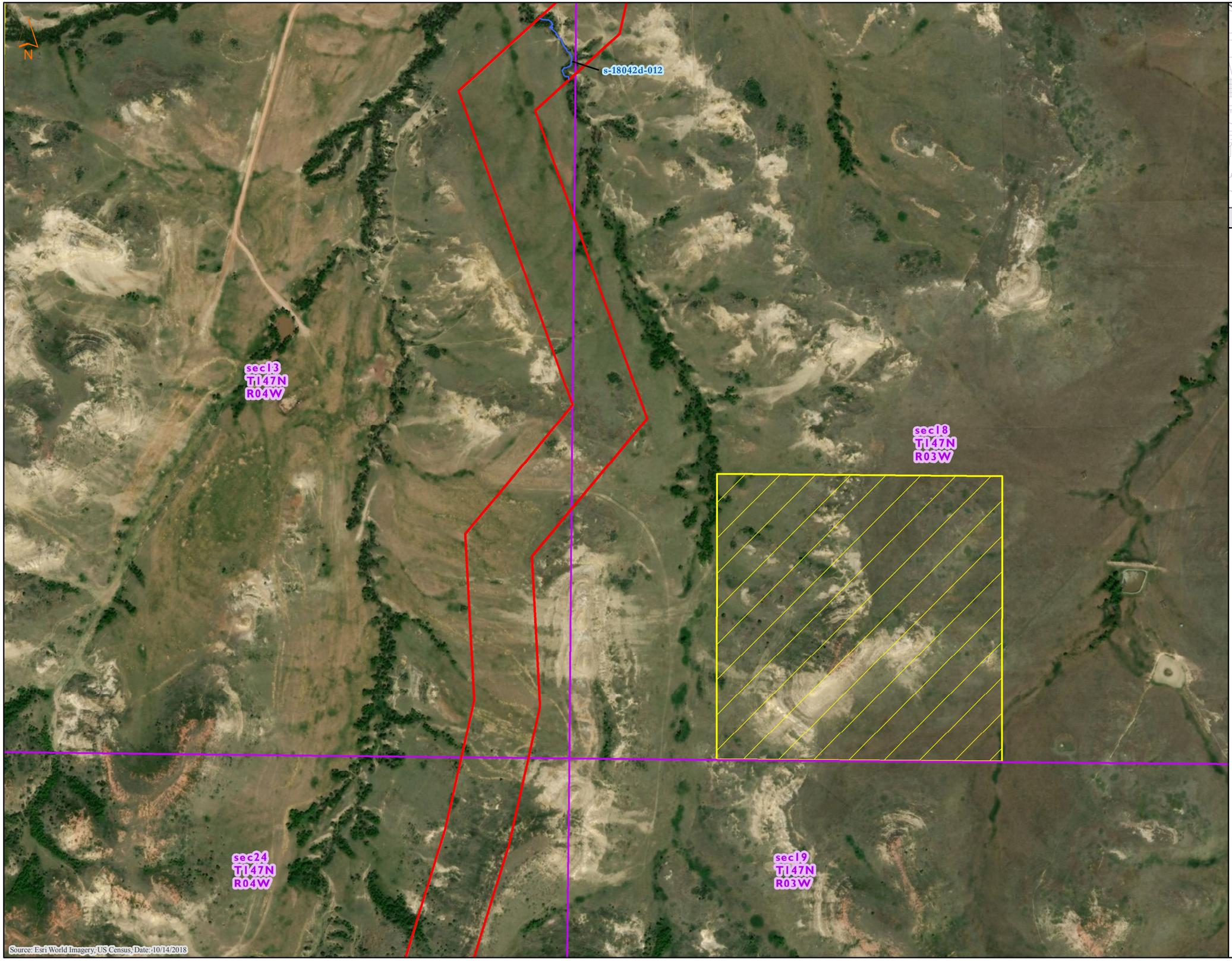
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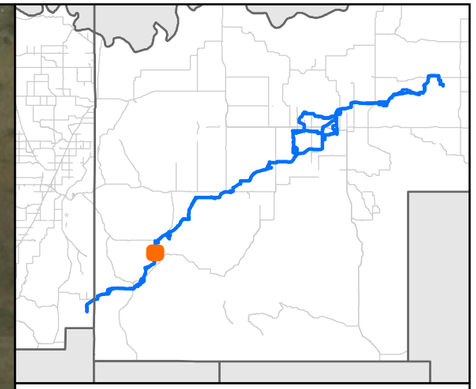
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 13 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





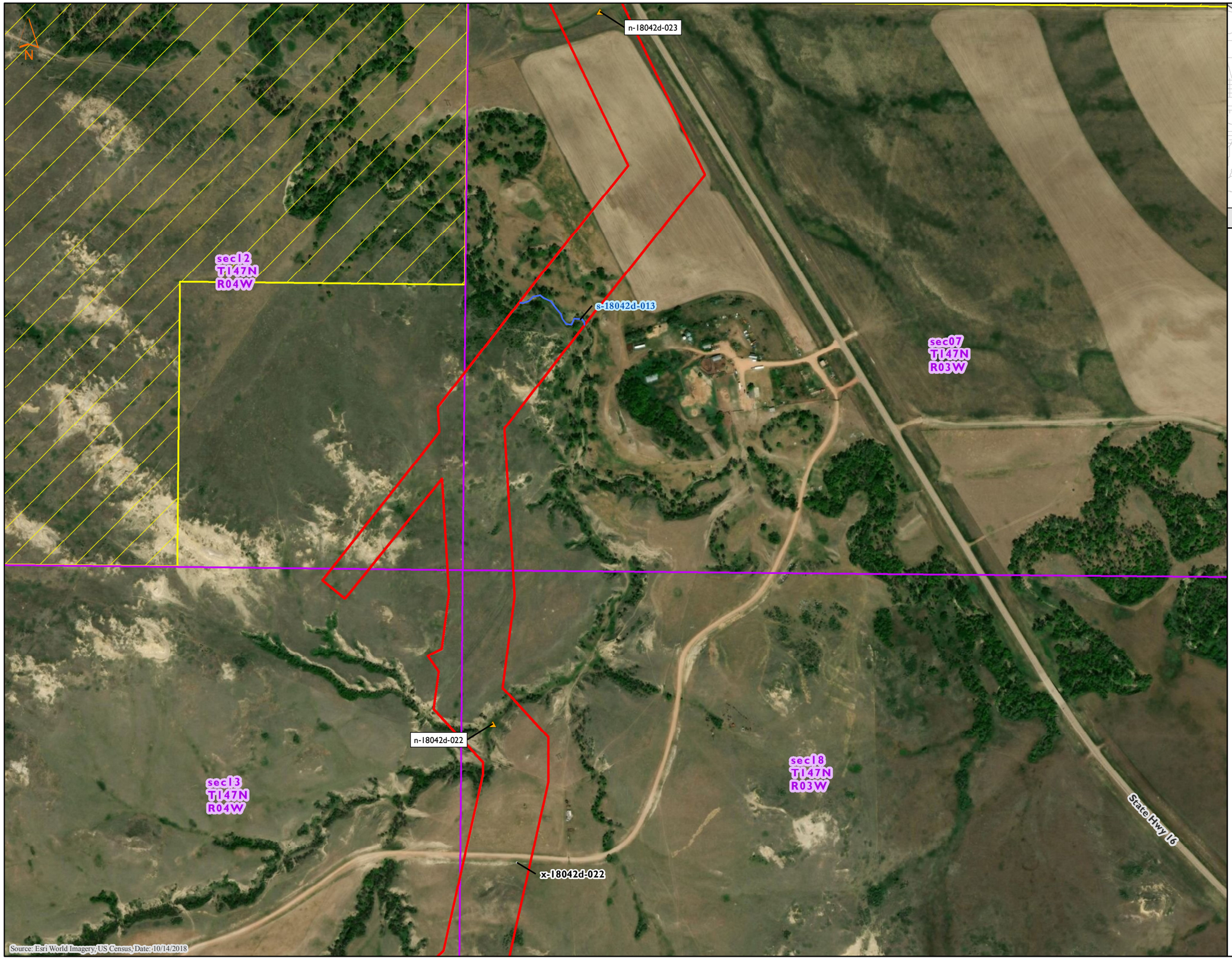
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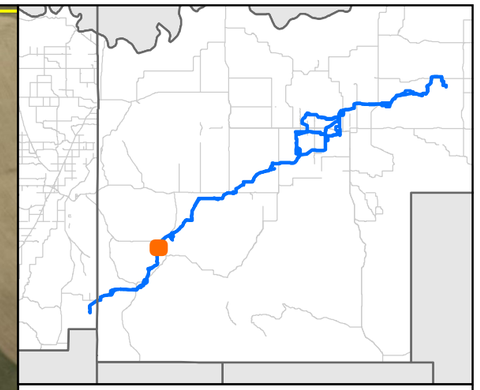
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 14 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





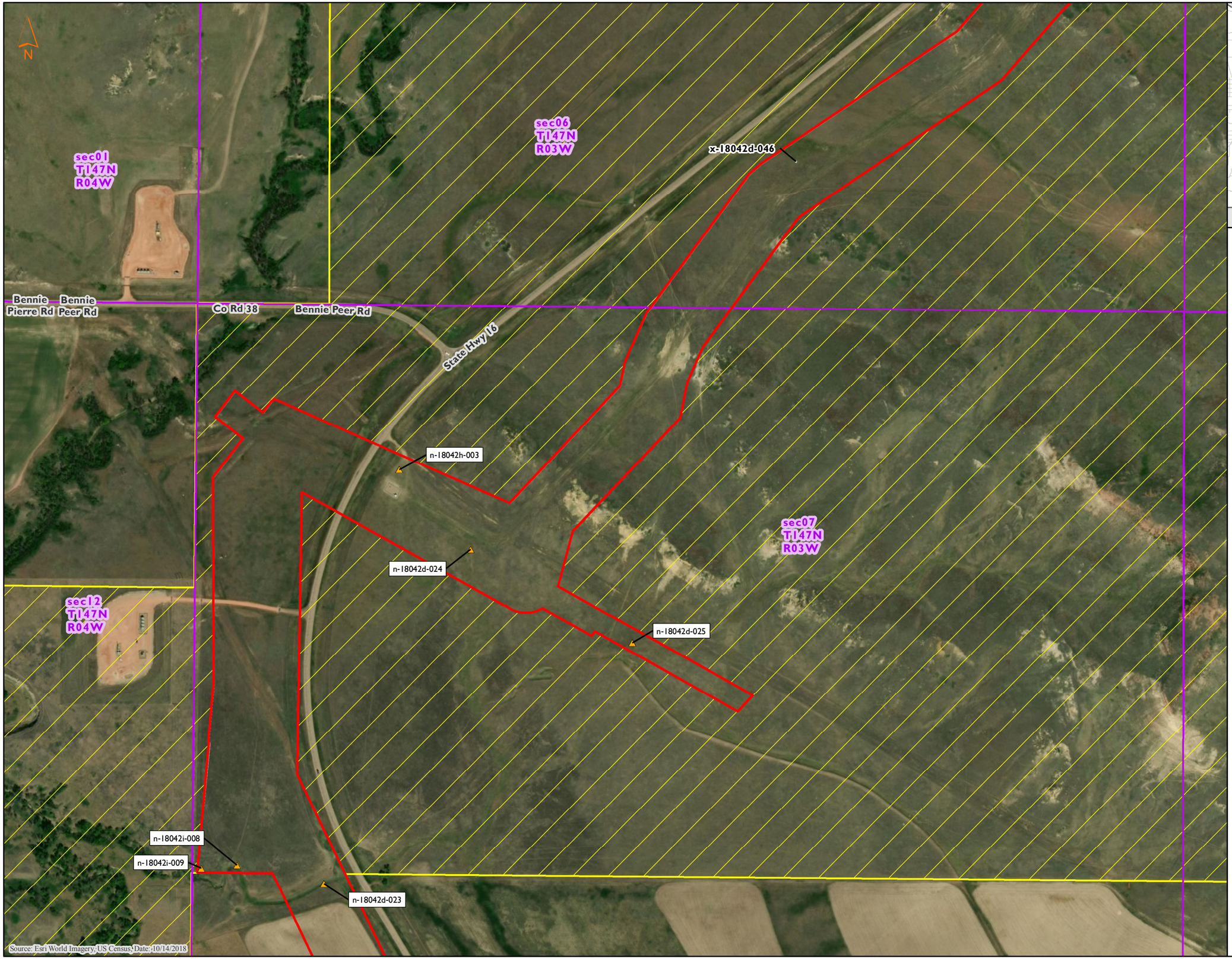
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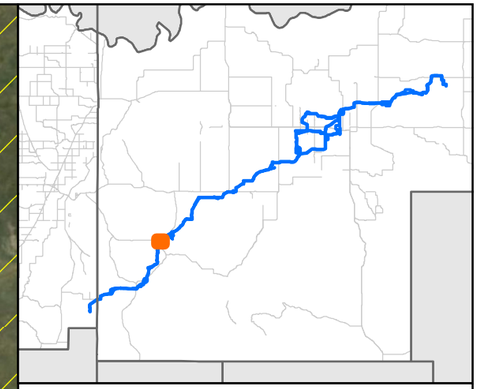
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 15 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





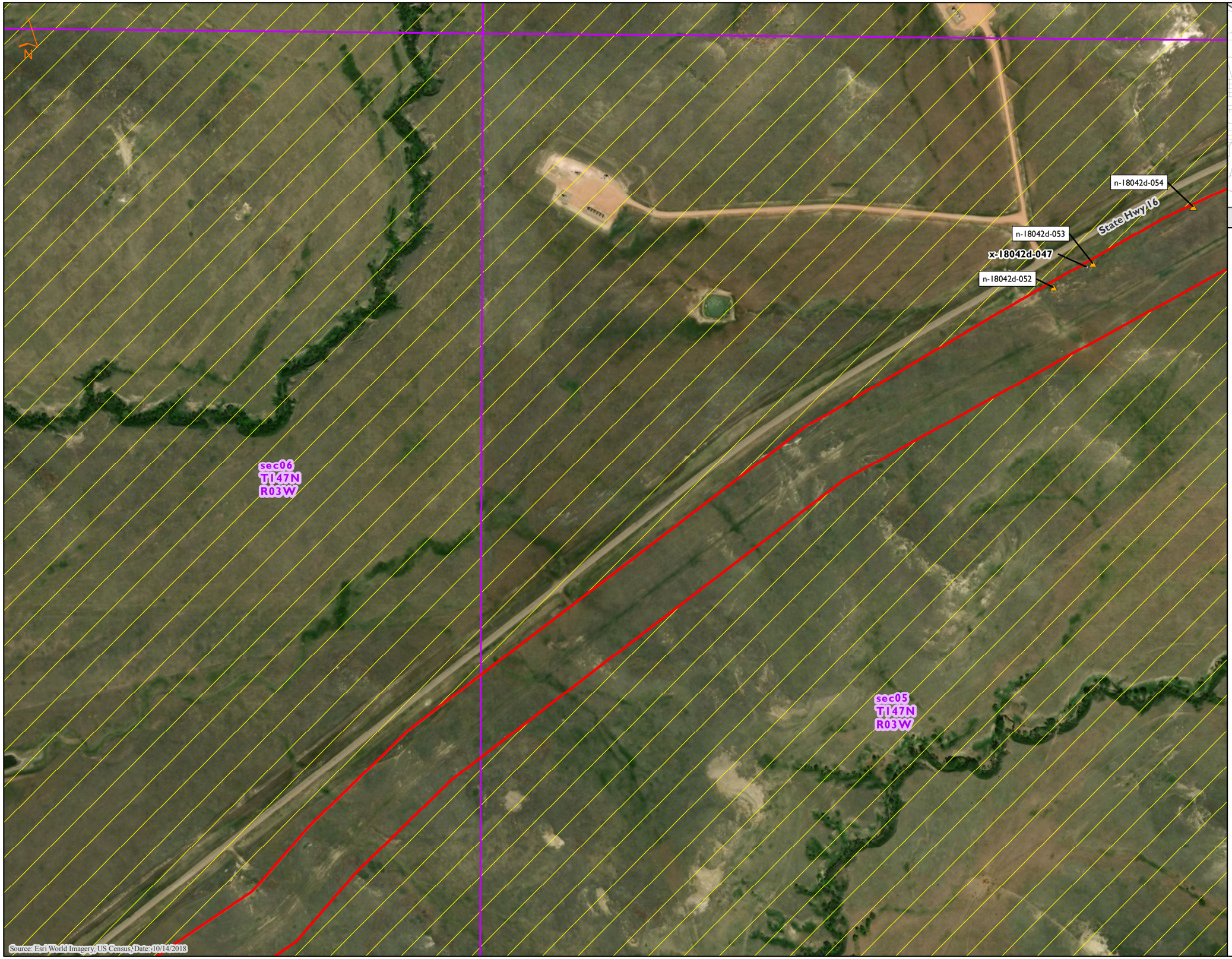
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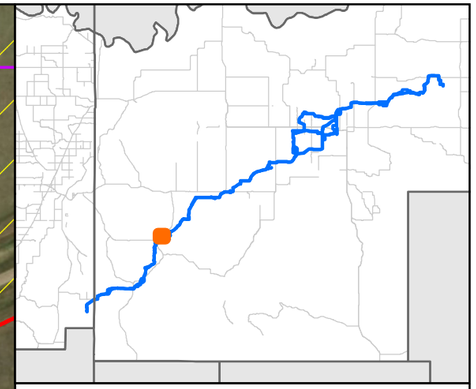
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 16 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





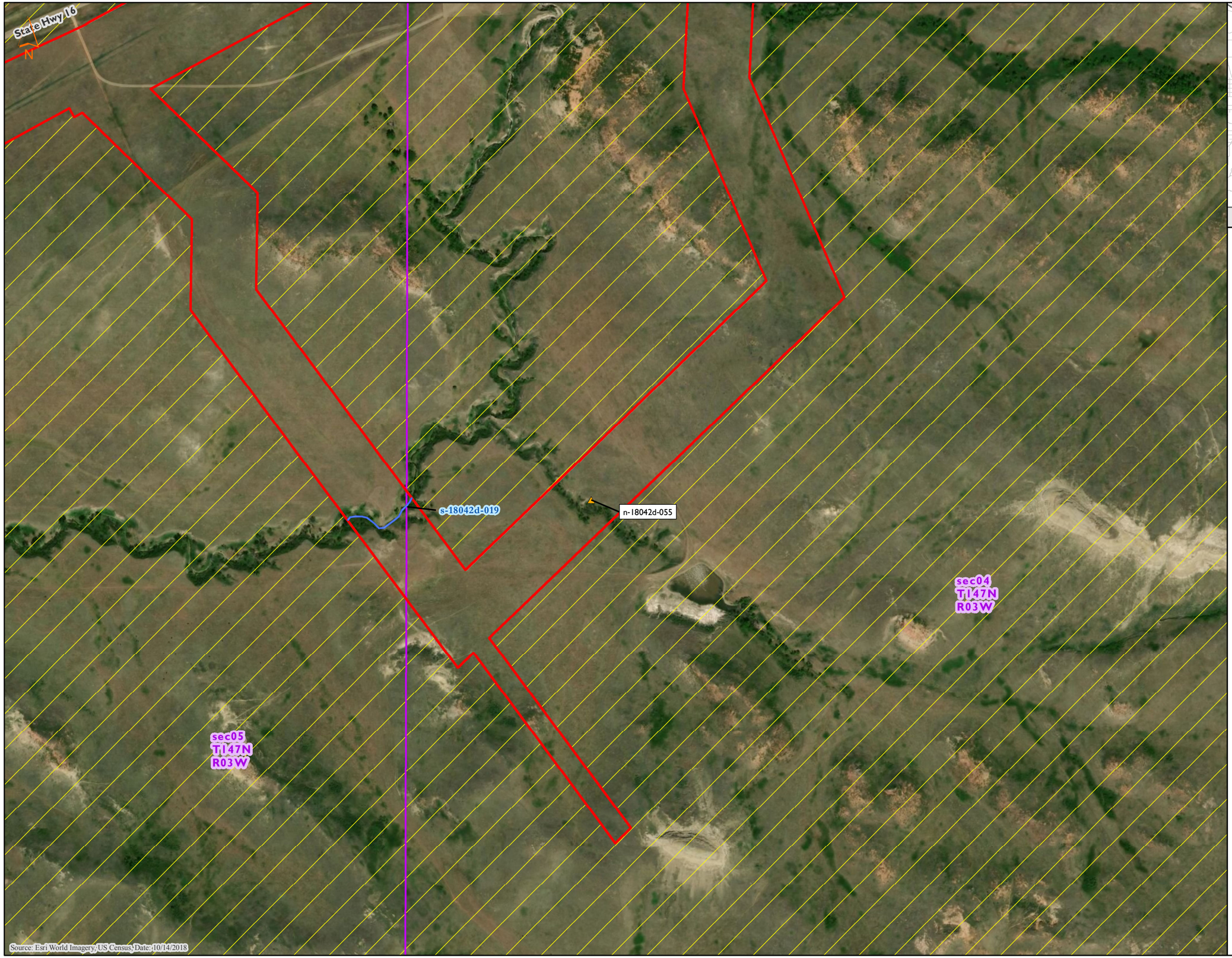
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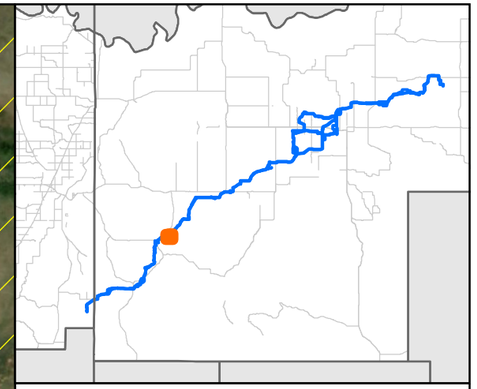
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 17 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





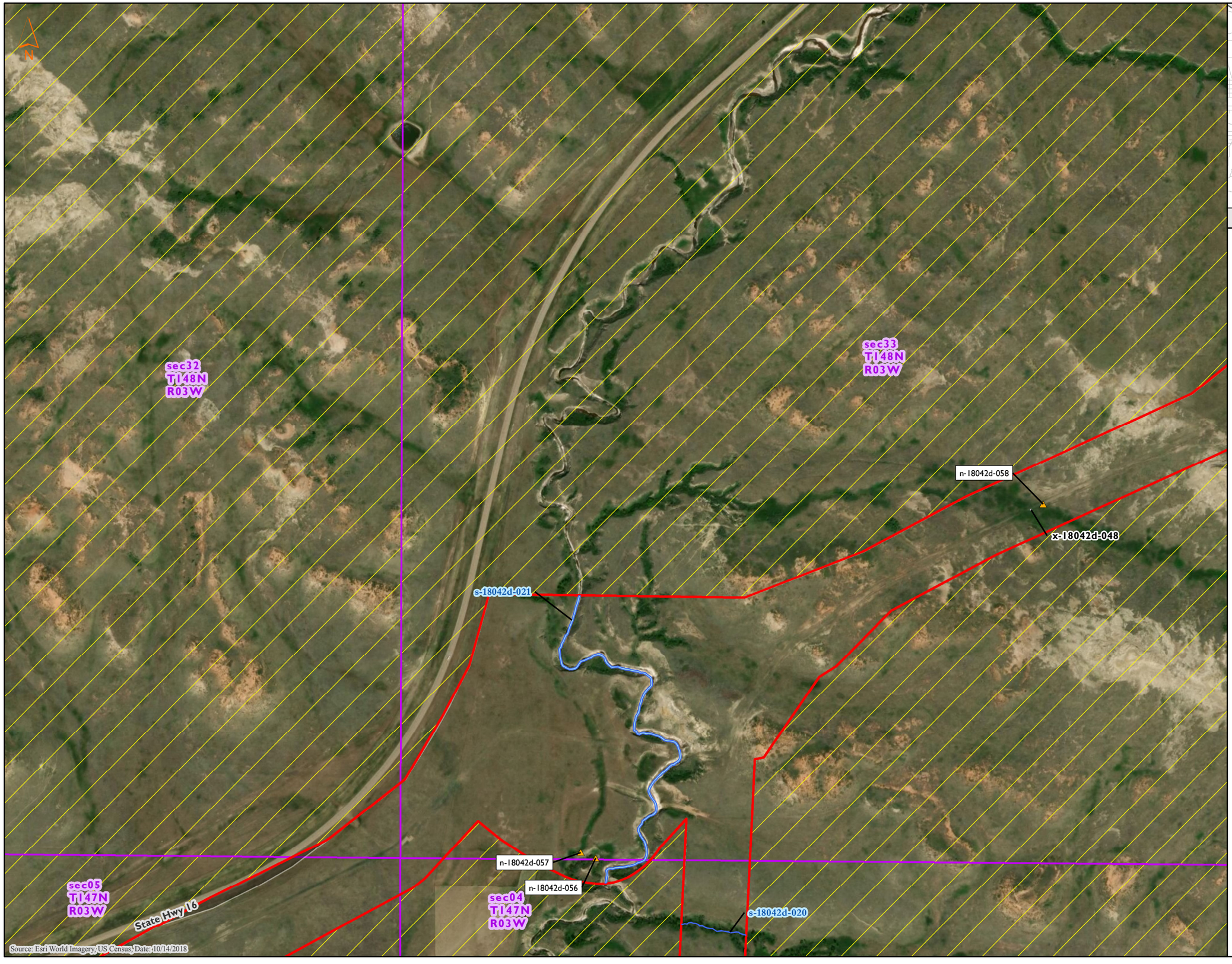
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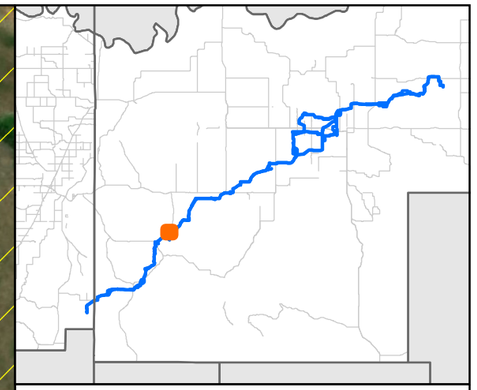
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 18 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





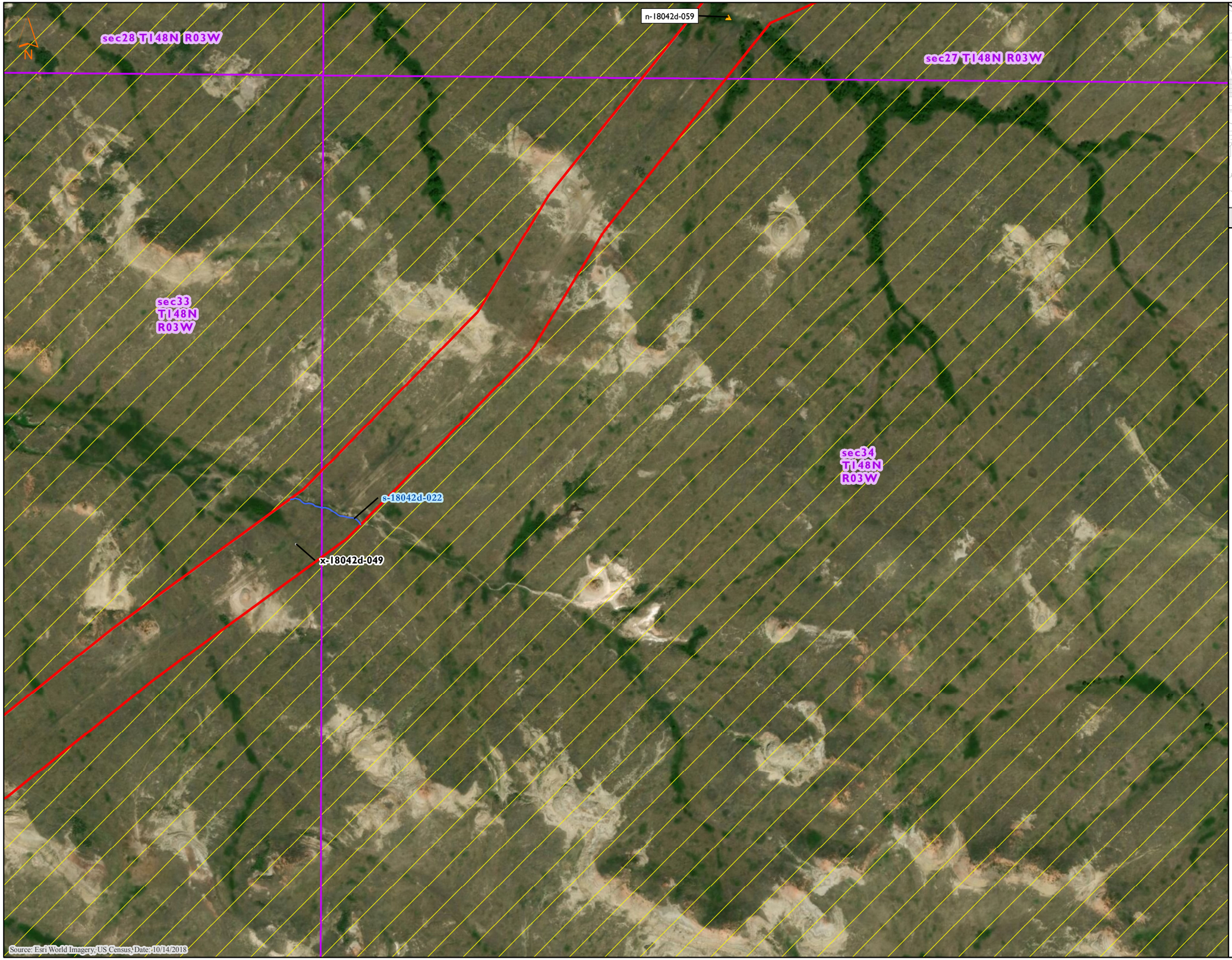
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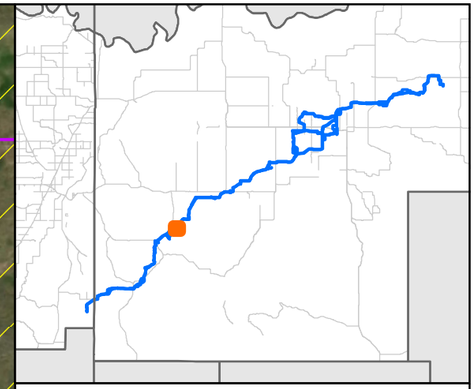
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 19 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





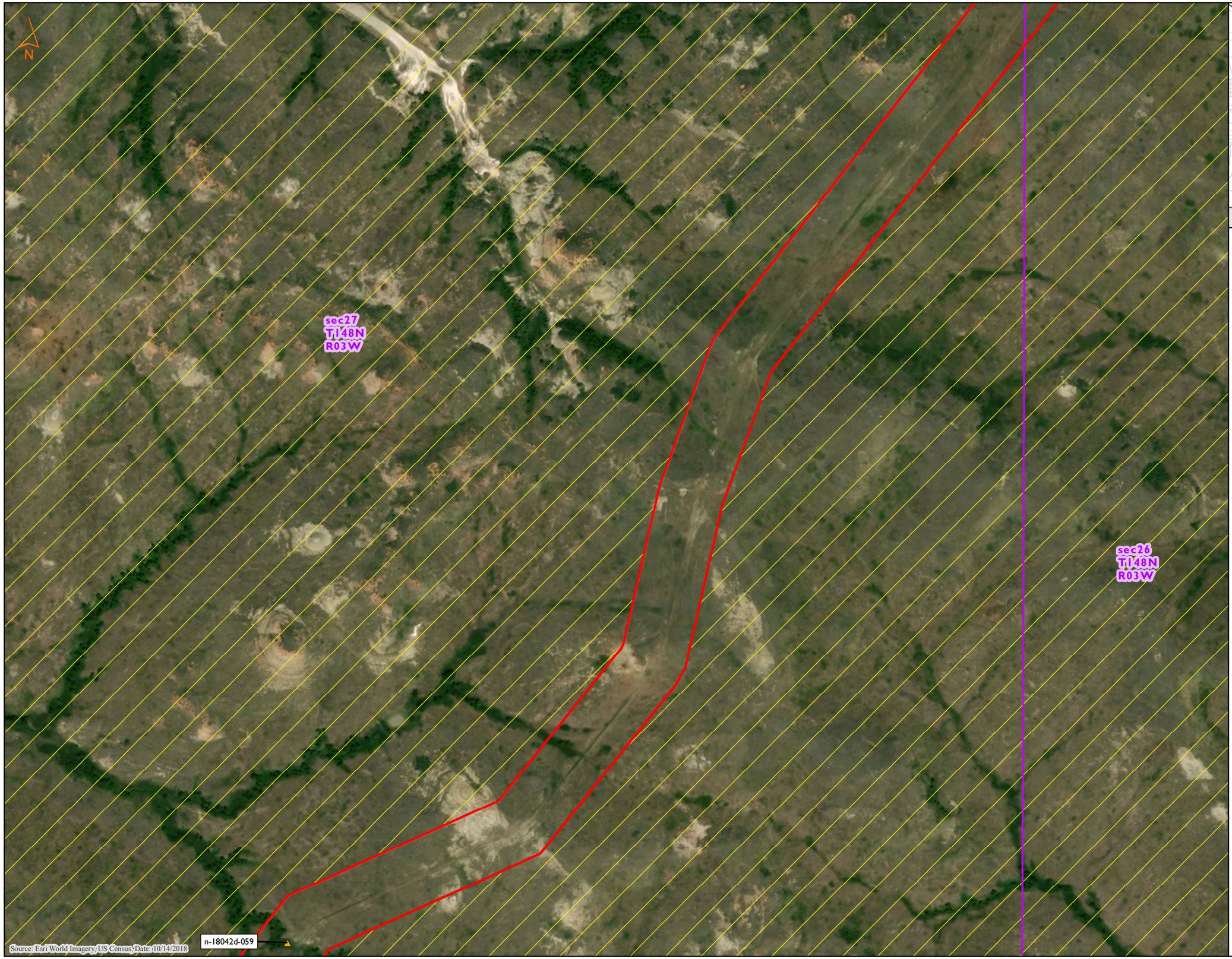
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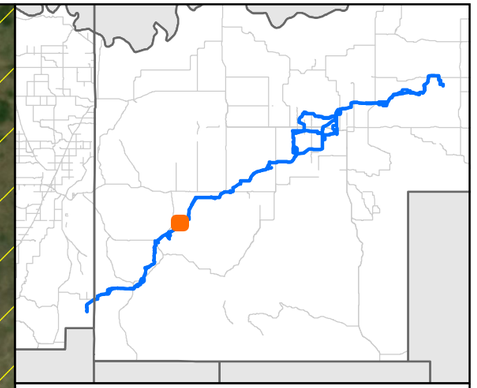
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 20 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





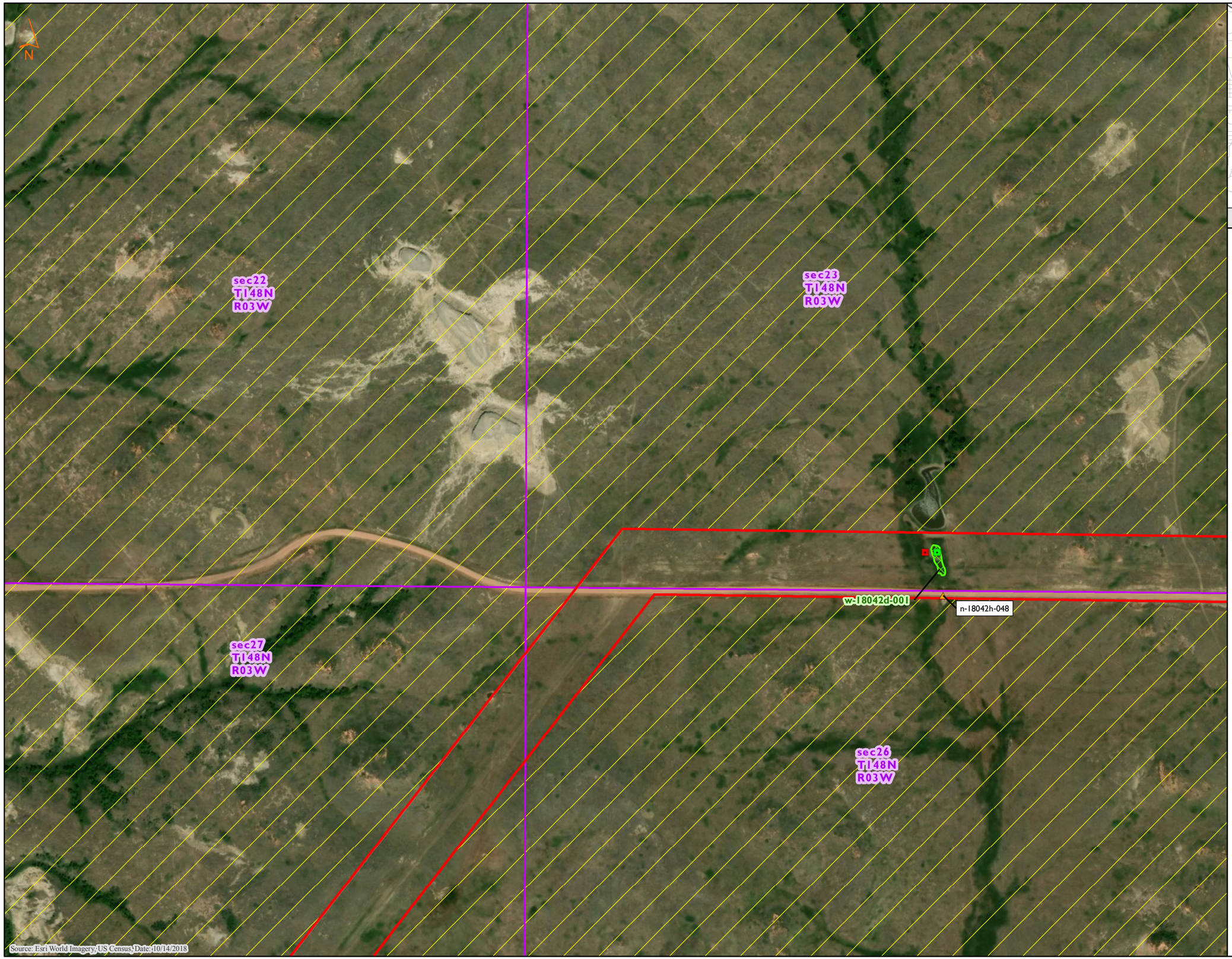
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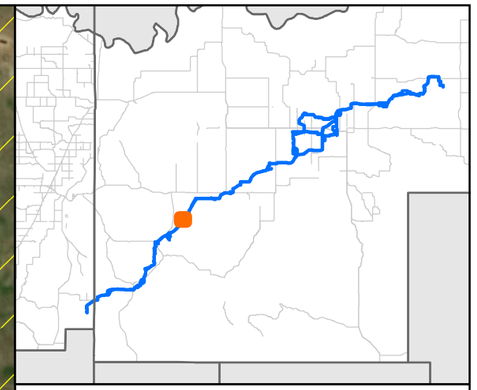
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 21 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





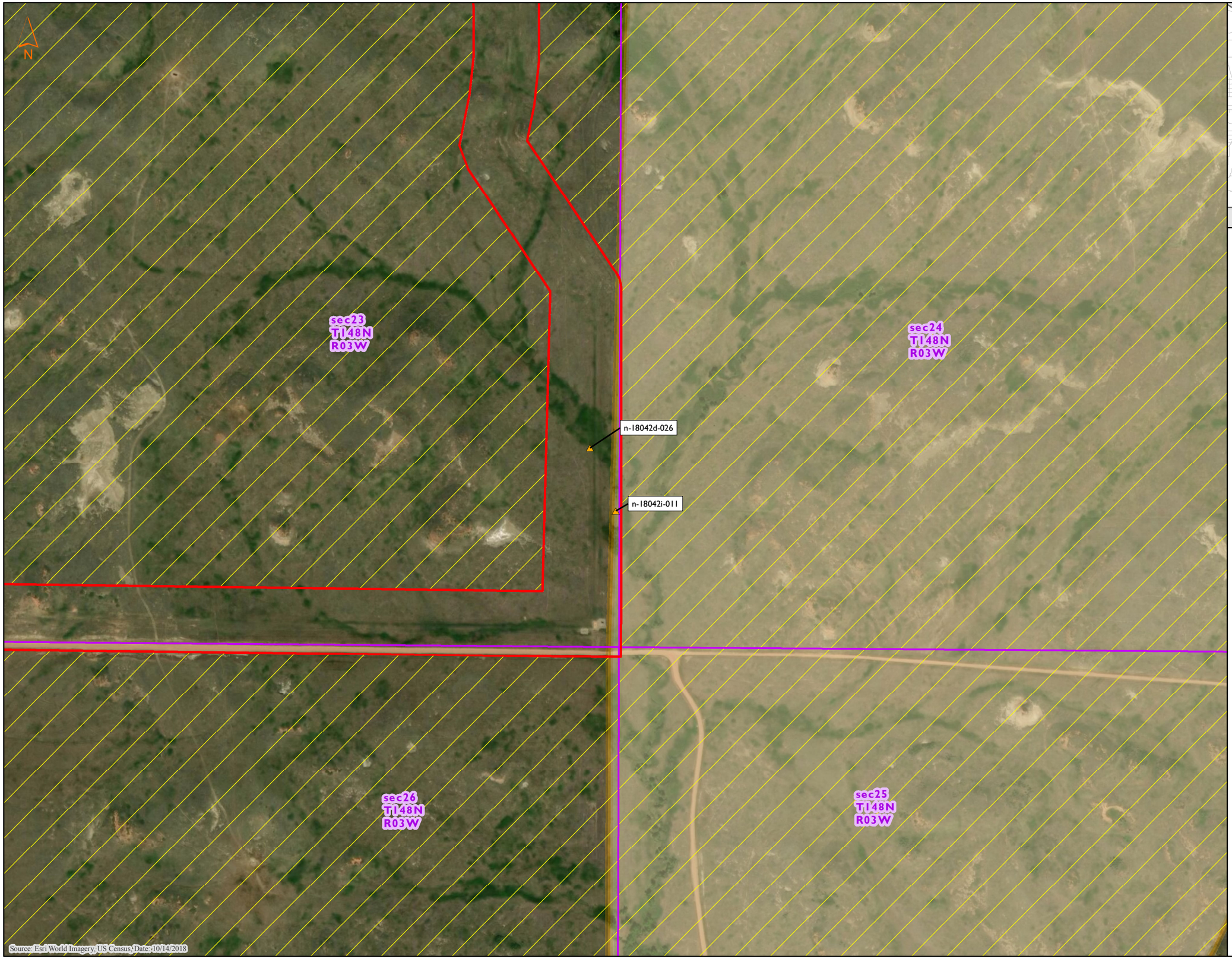
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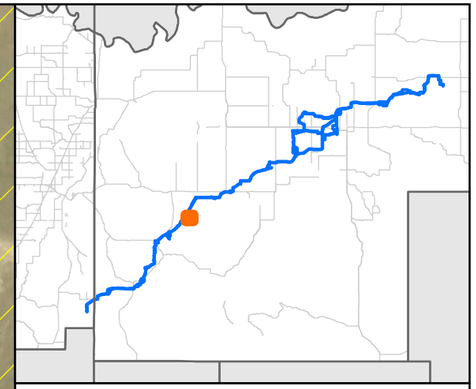
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 22 of 84

- Non-NHD/NWI Point
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- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





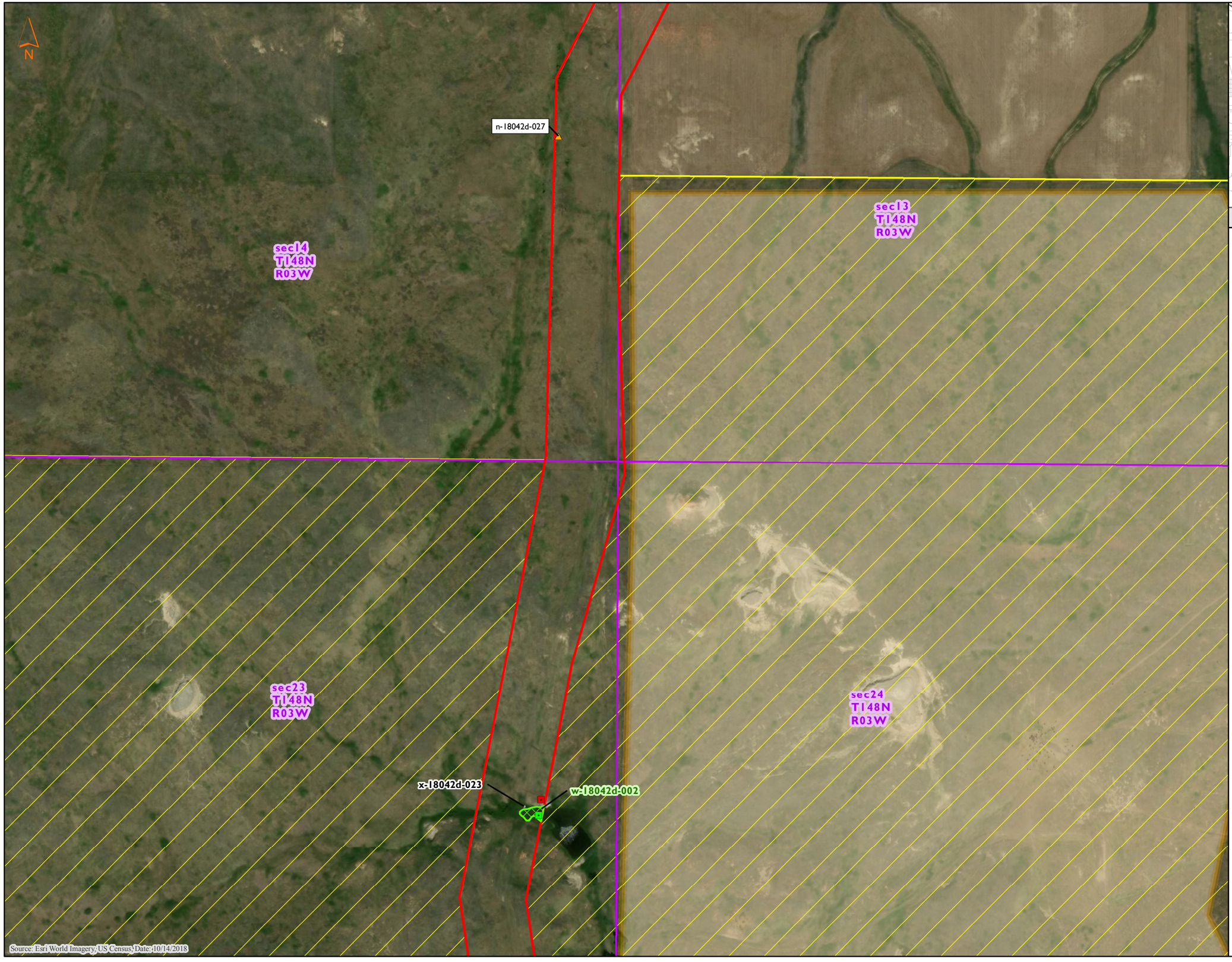
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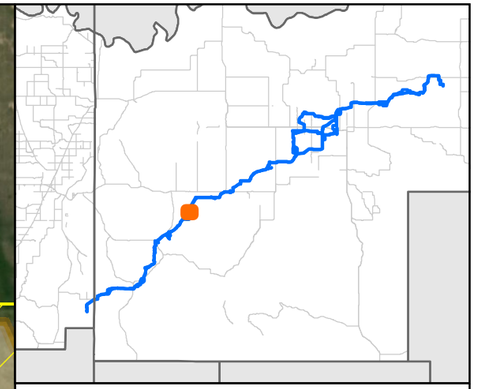
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 23 of 84

- Non-NHD/NWI Point
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- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





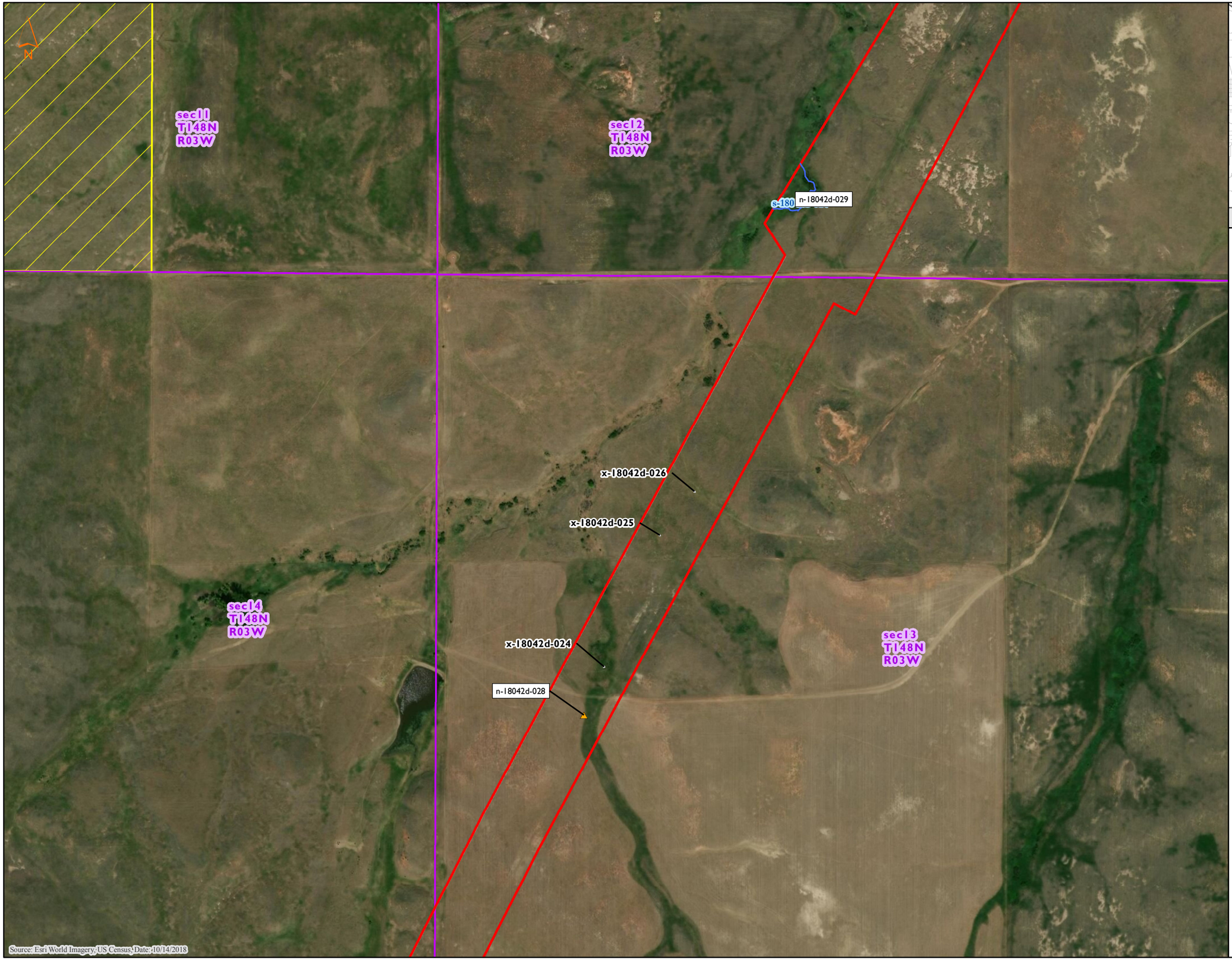
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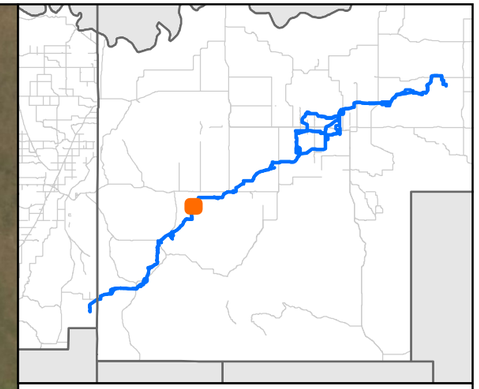
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 24 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





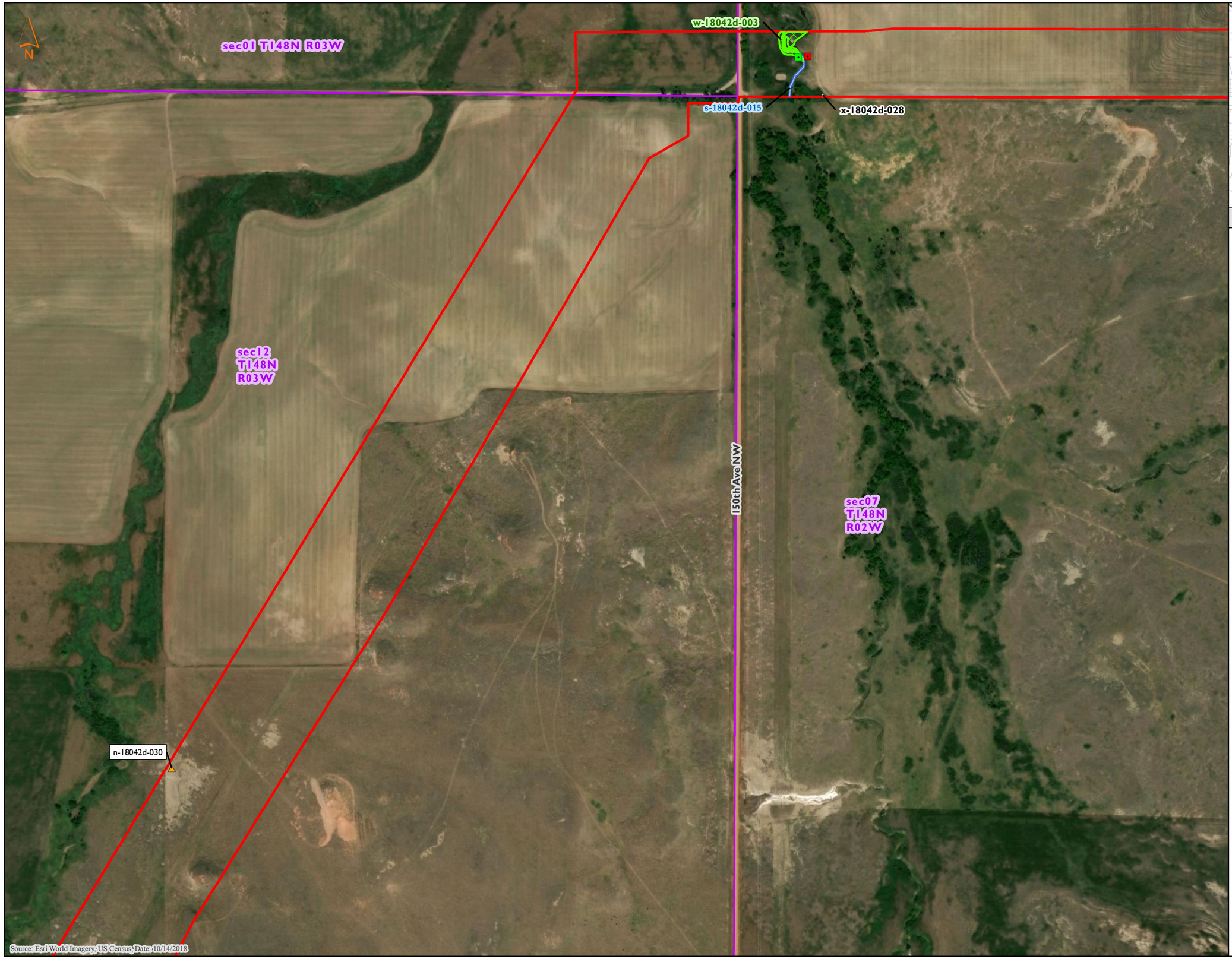
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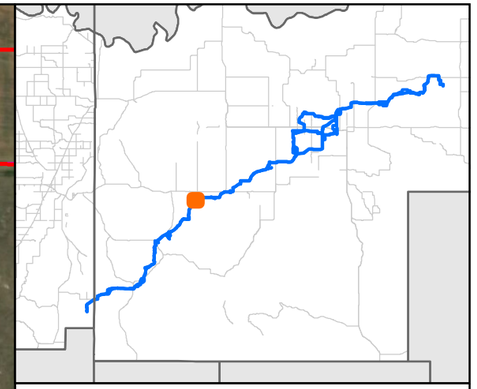
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 25 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
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- PSS Wetland
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- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





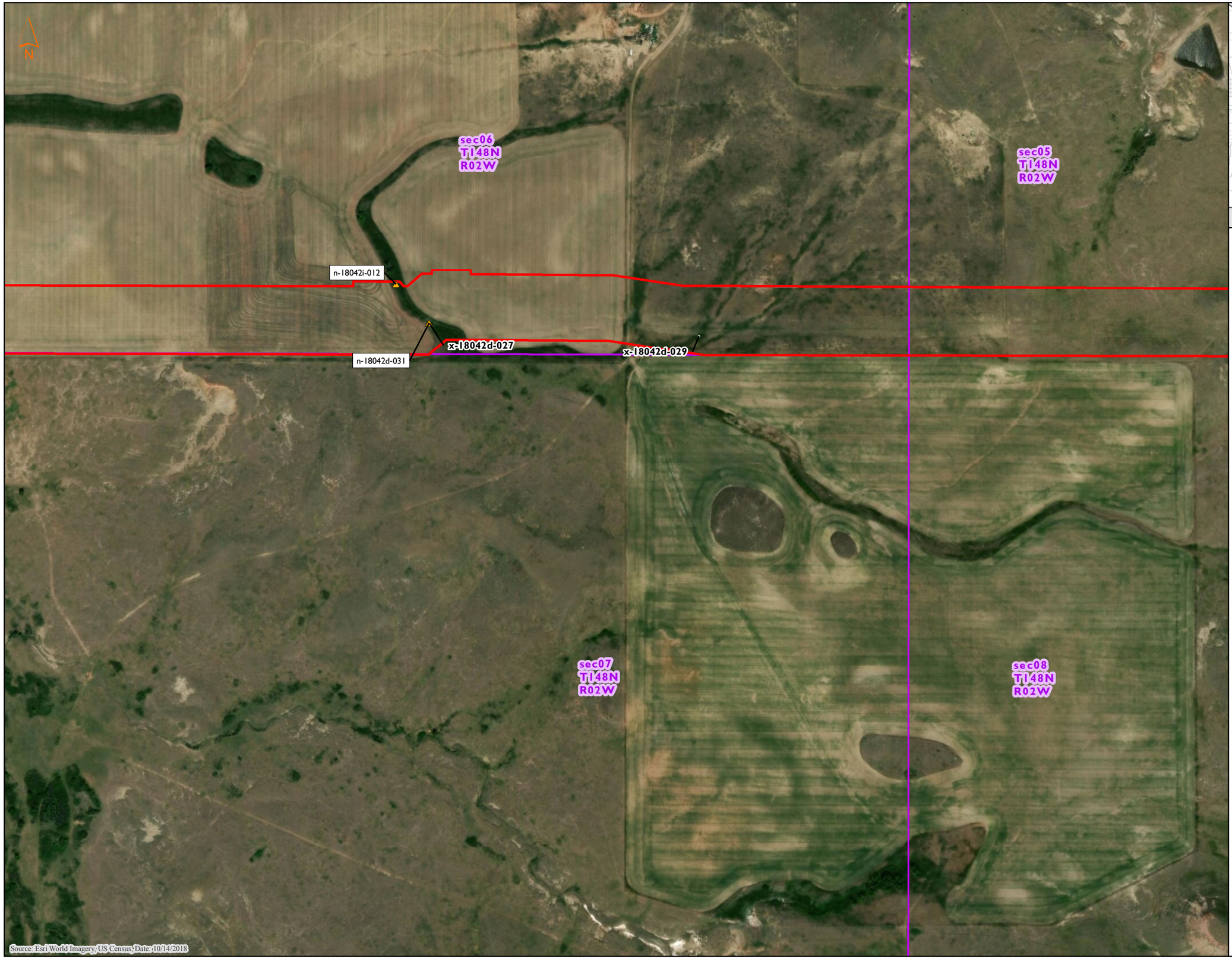
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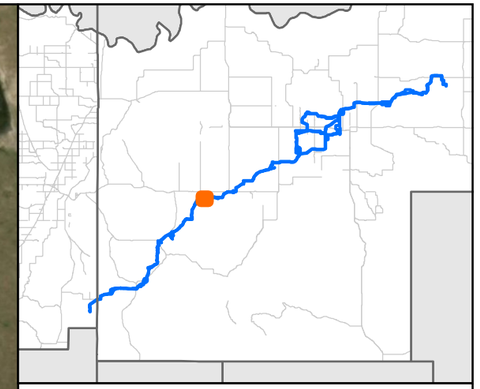
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 26 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
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- PSS Wetland
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- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





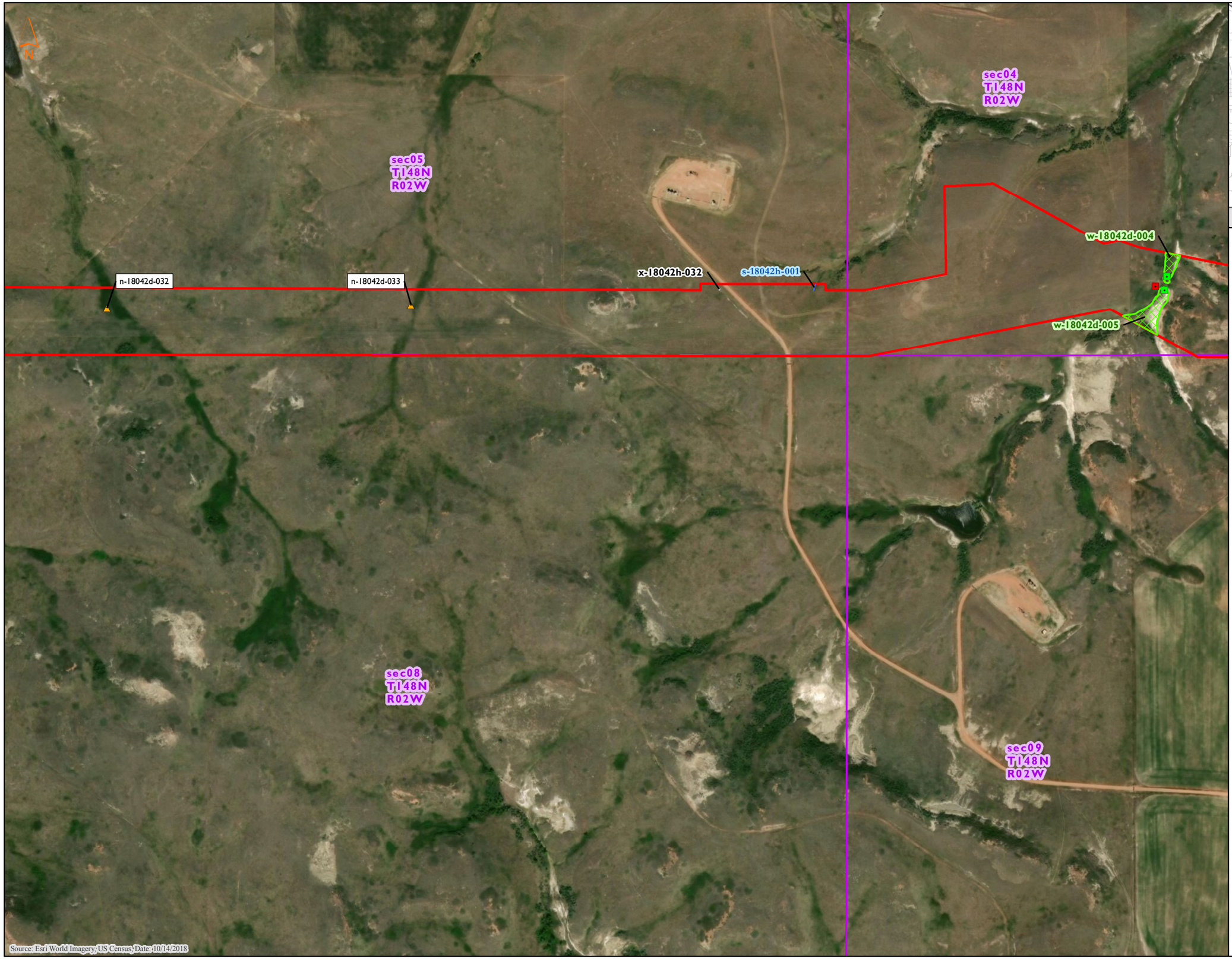
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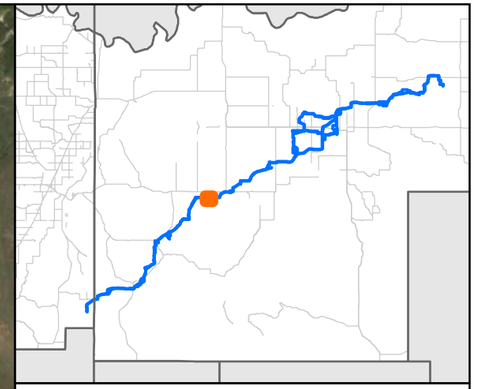
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 27 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Upland Data Point
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- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





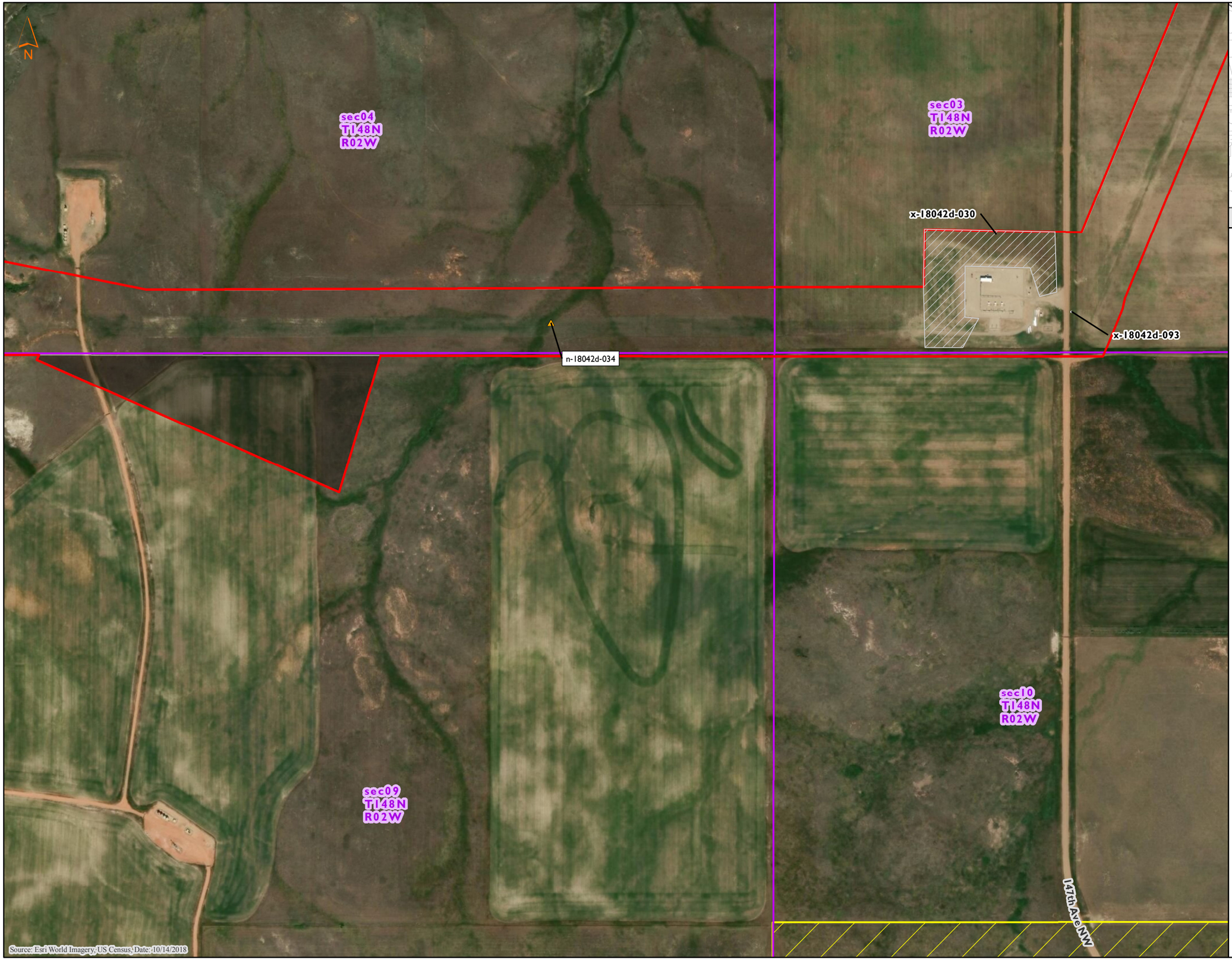
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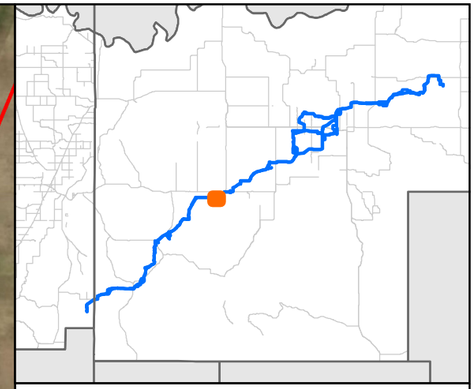
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 28 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
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0 400 800
Feet





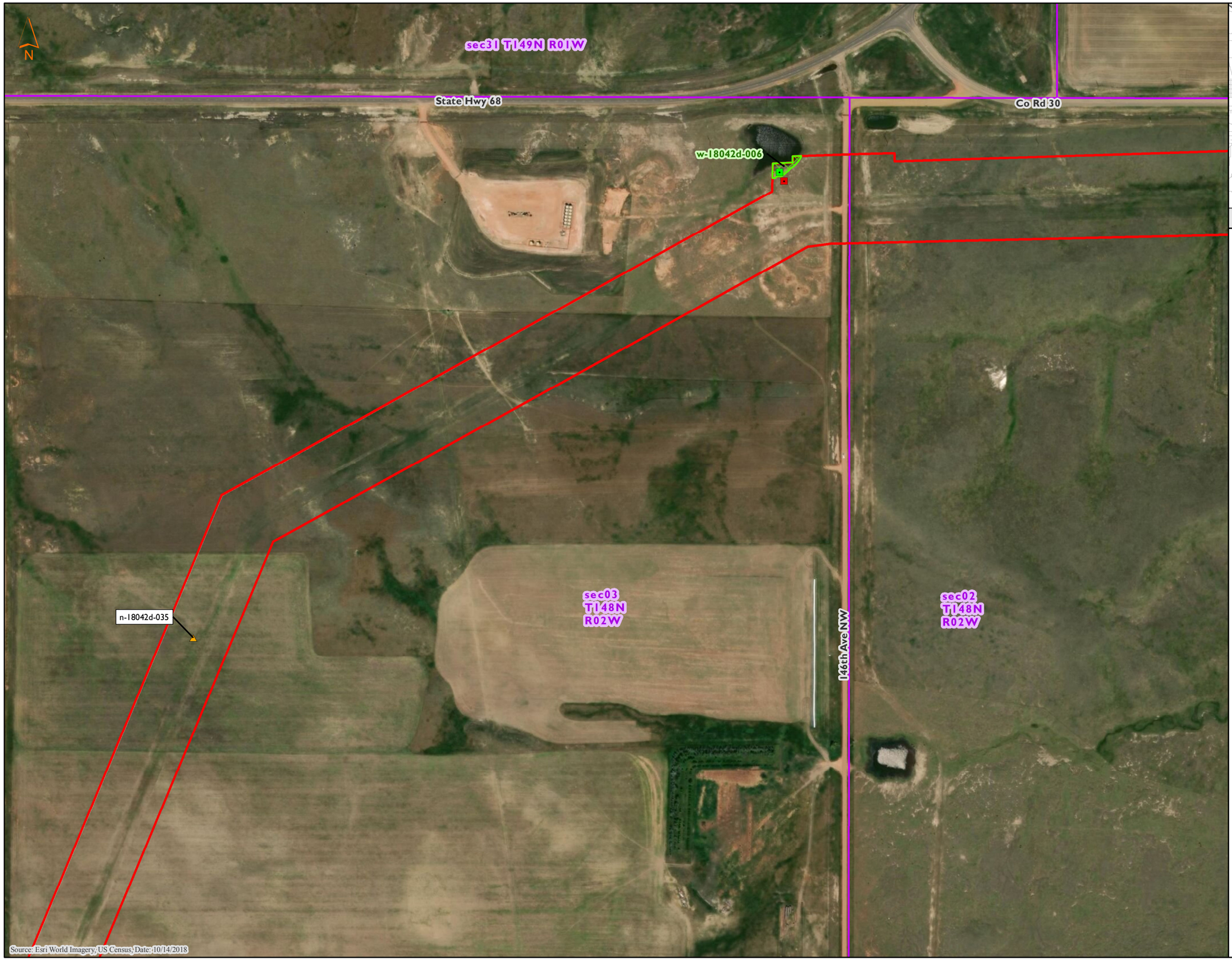
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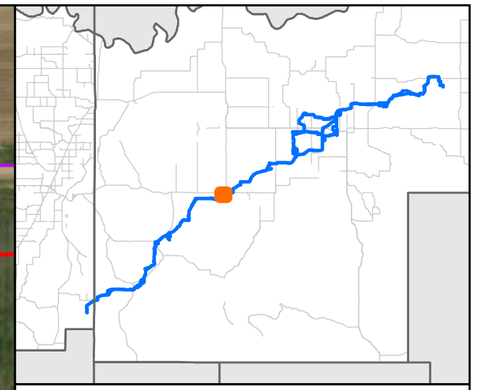
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 29 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





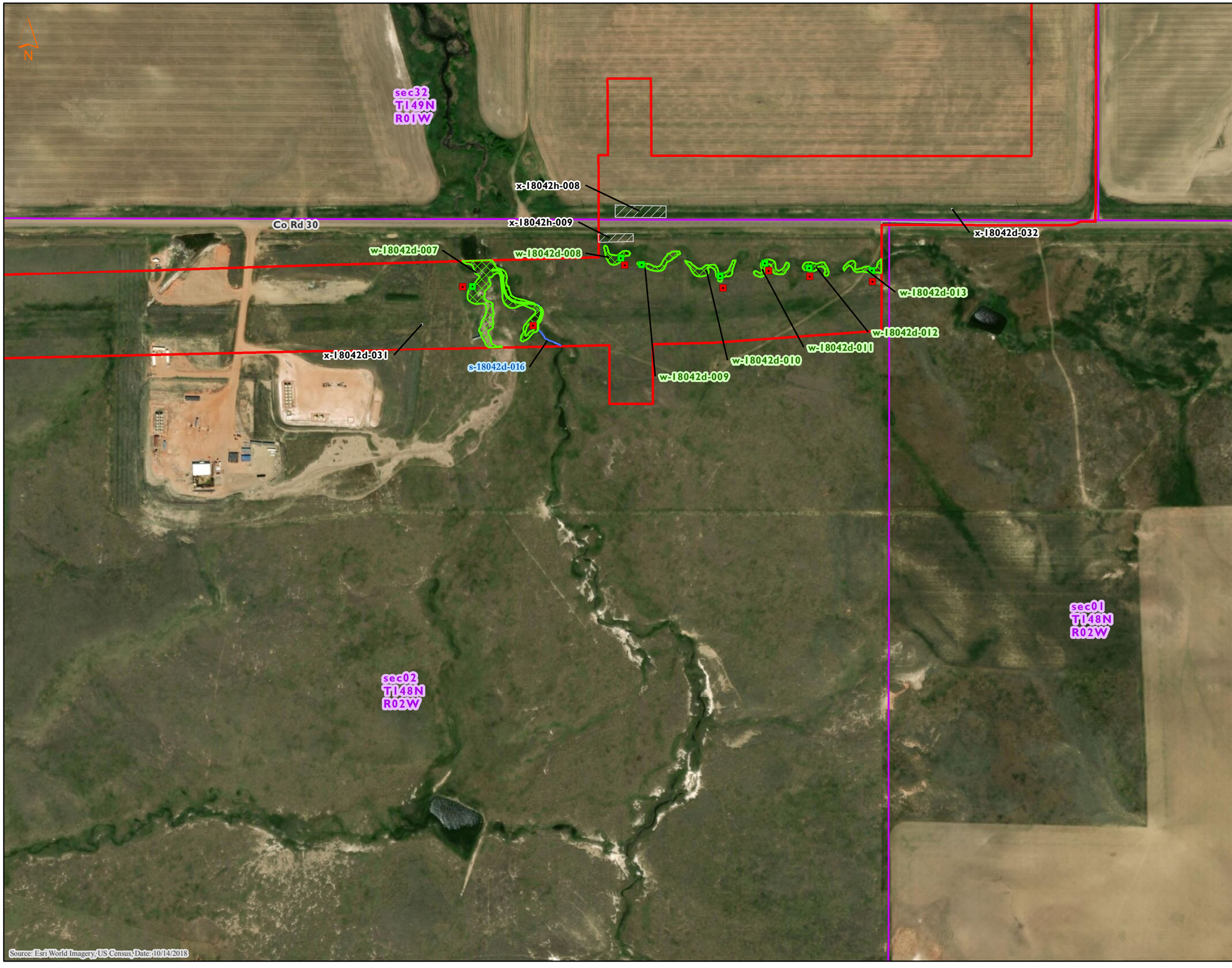
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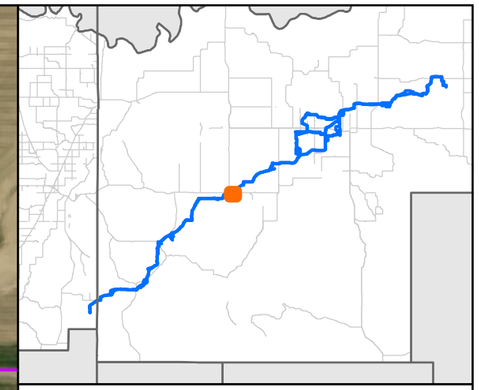
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 30 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





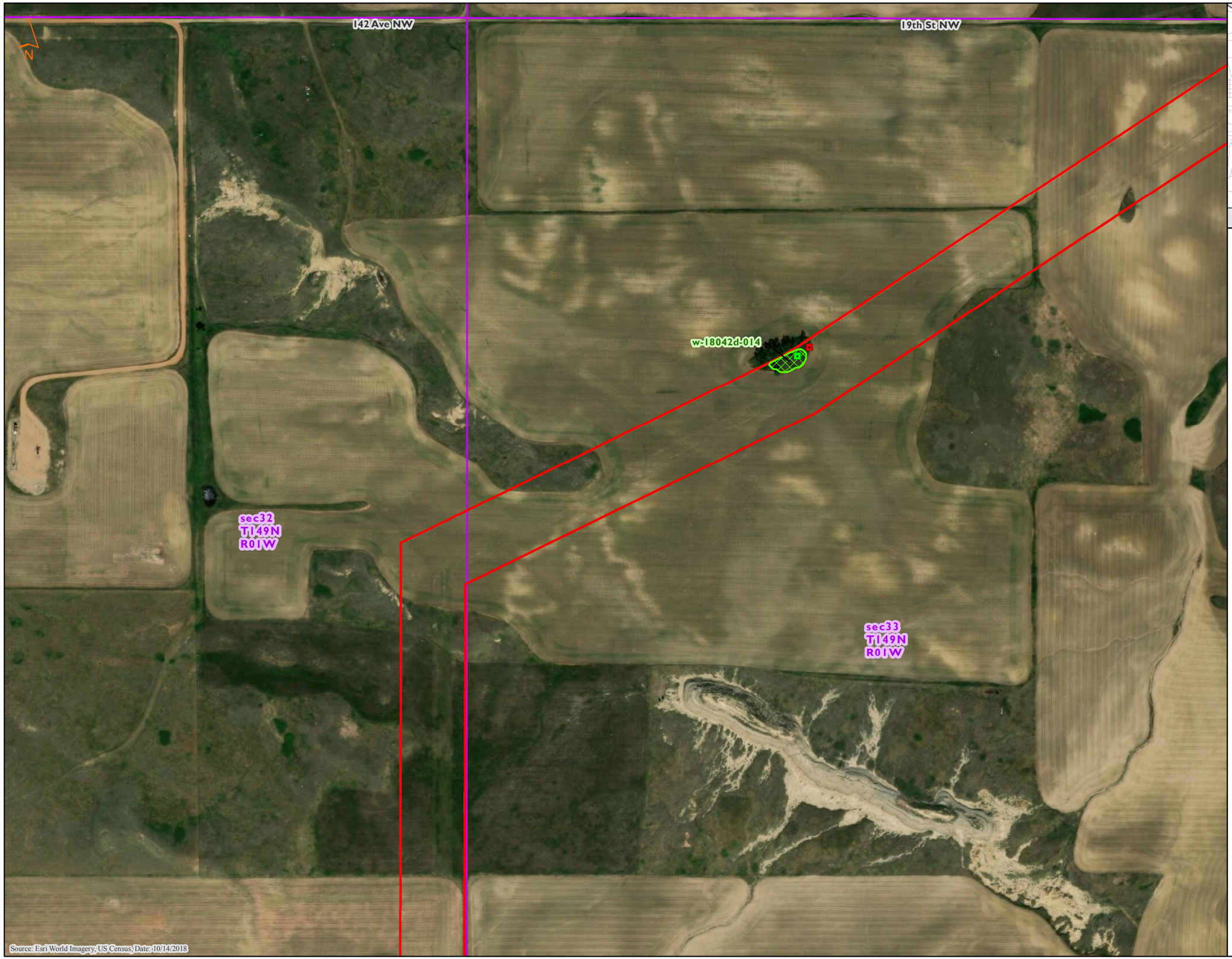
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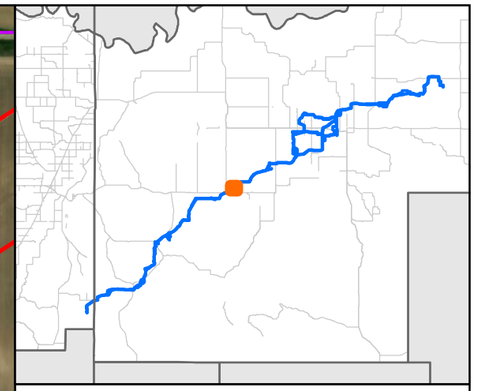
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 31 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





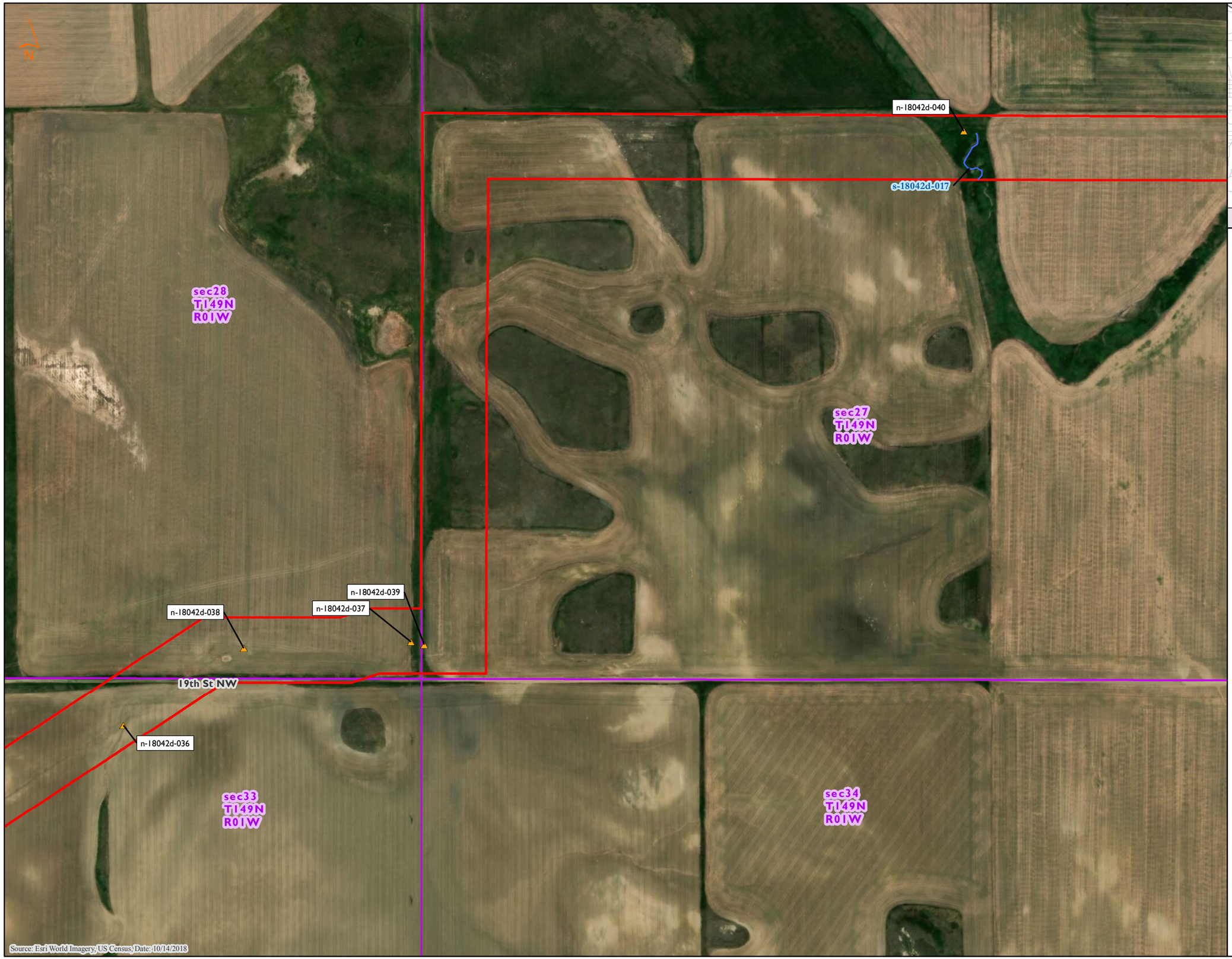
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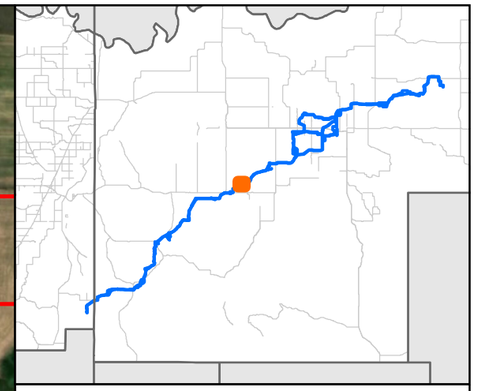
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 32 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Waterbody
- Noxious Weed Population
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- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

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Feet





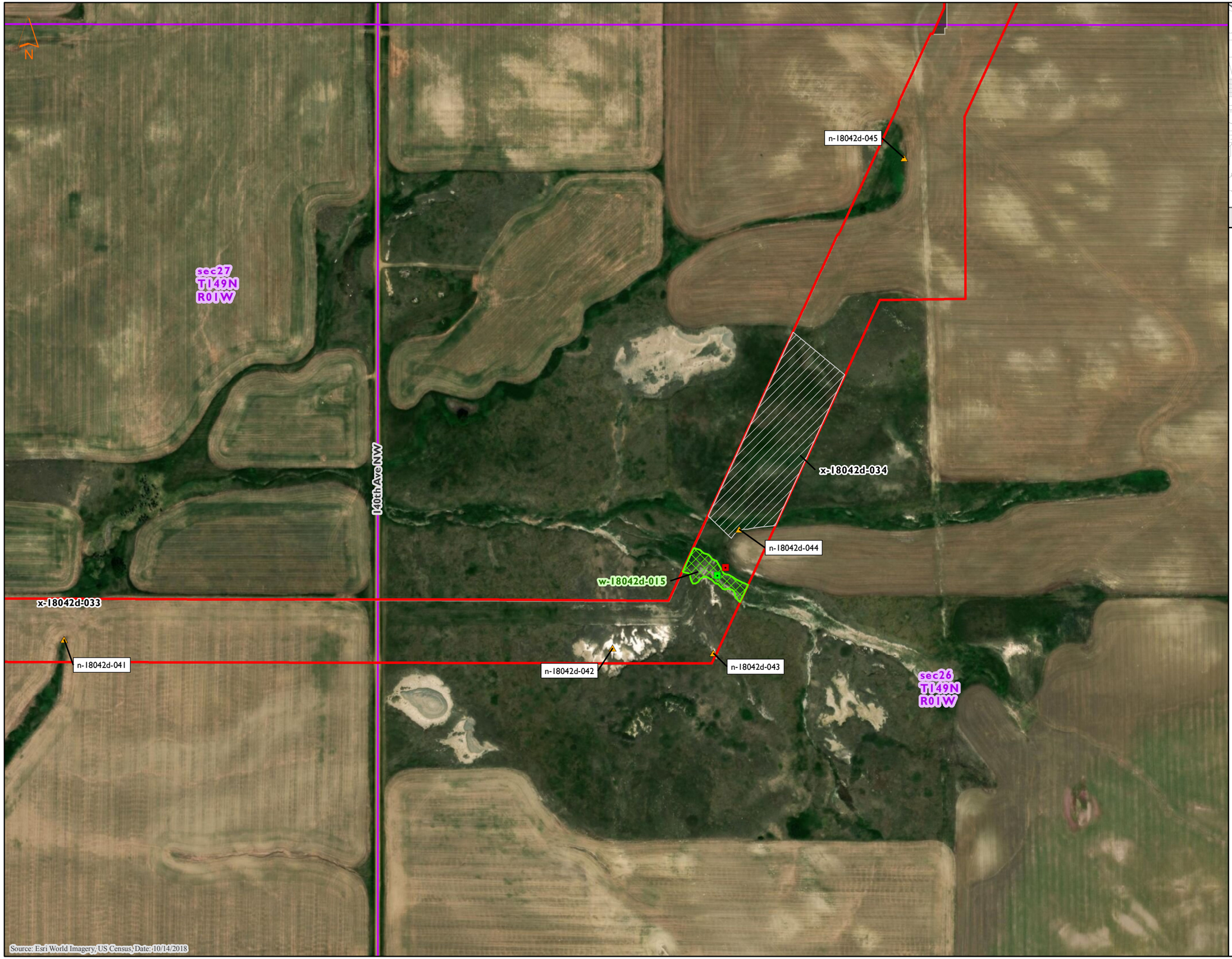
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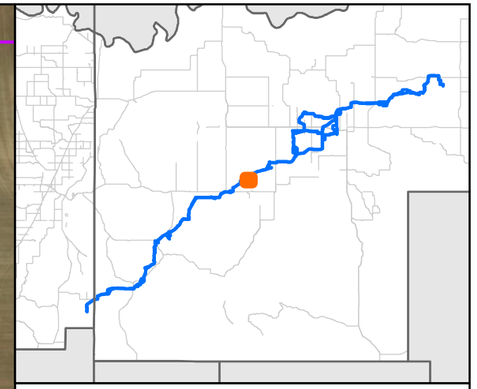
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 33 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

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Feet





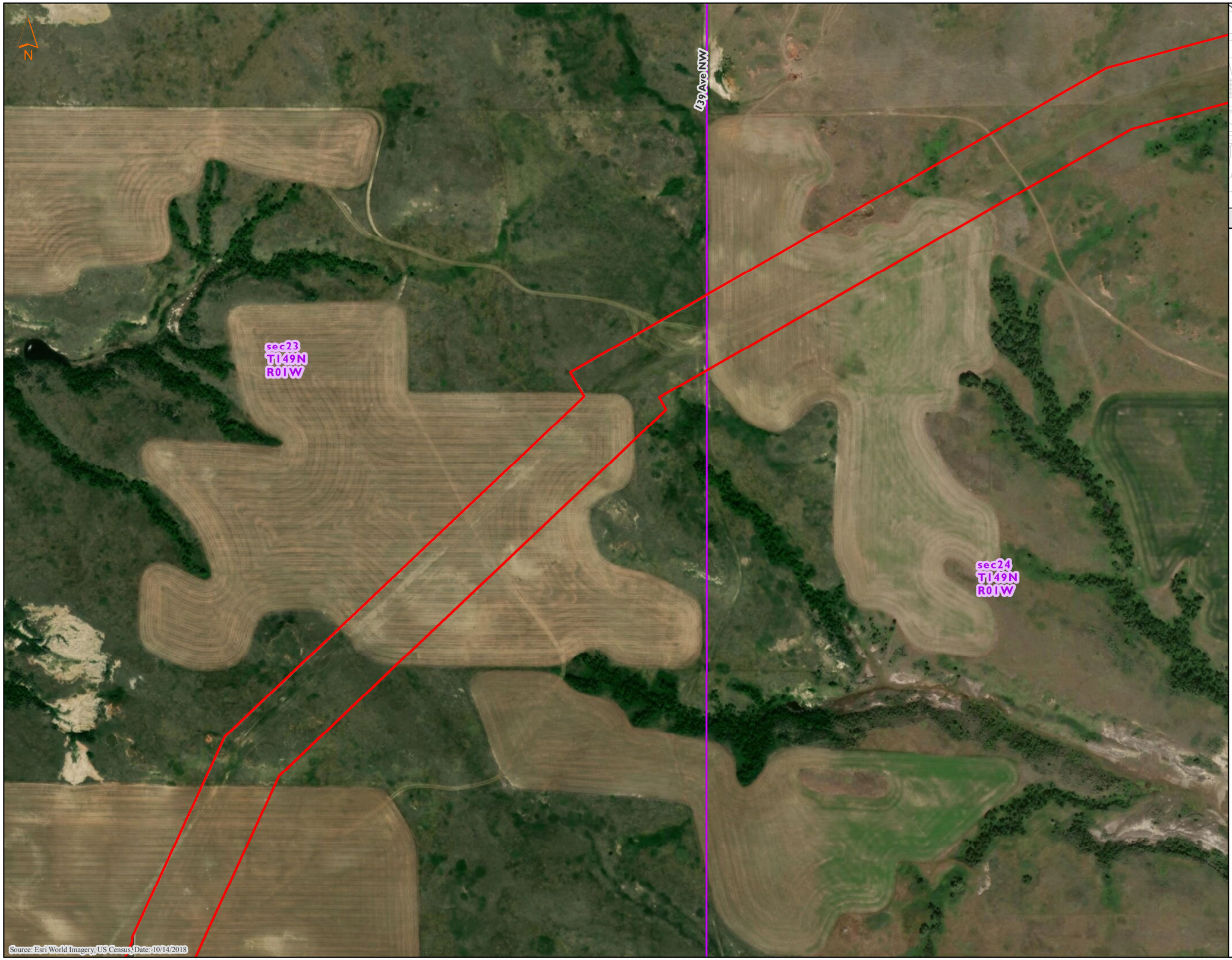
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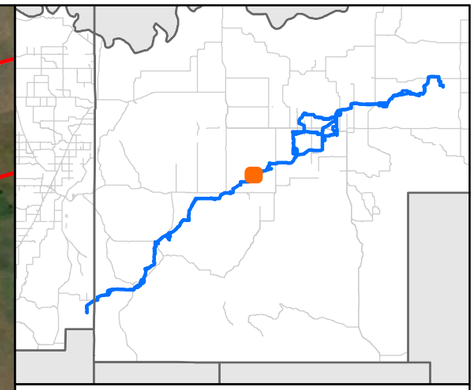
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 34 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Noxious Weed Population
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





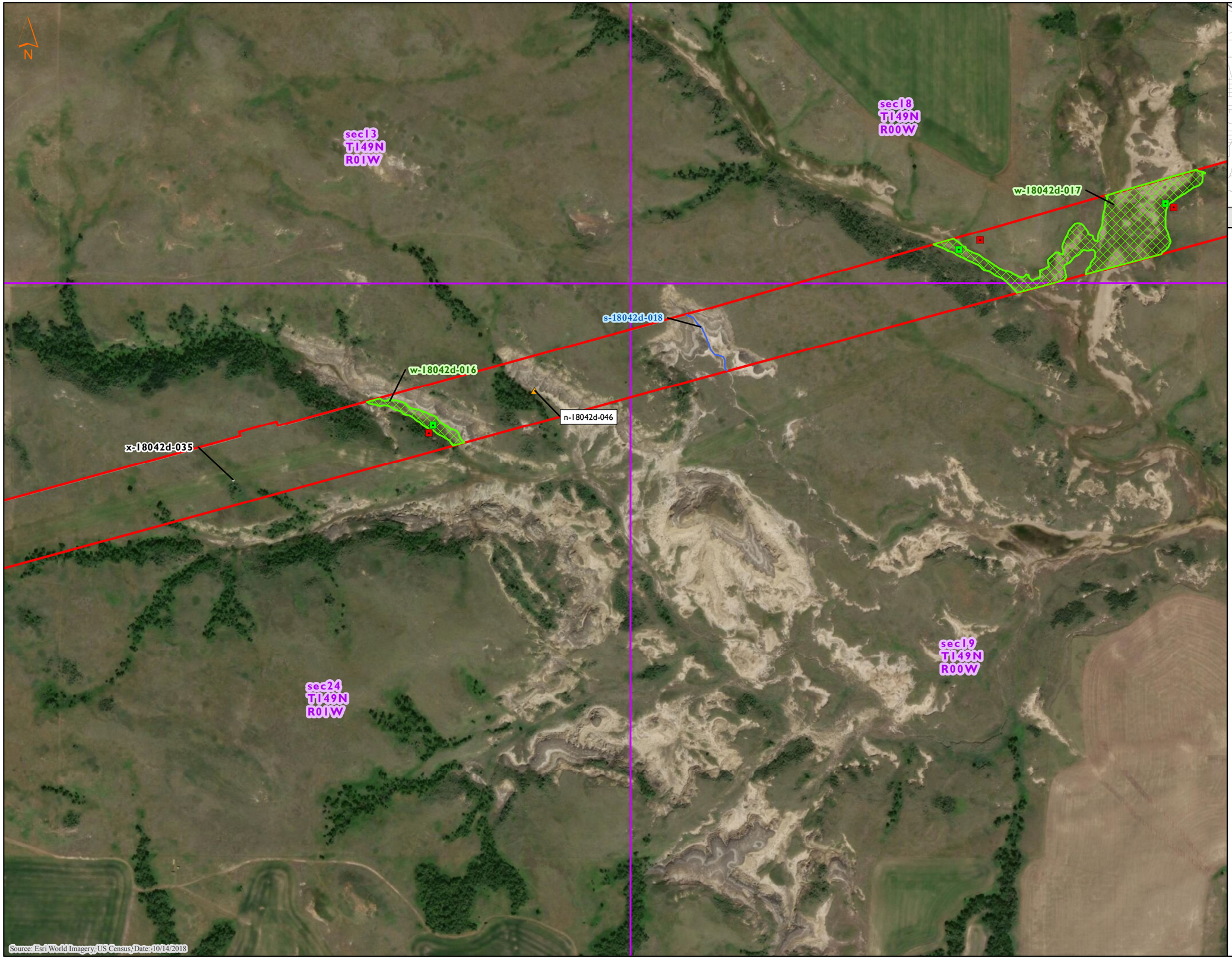
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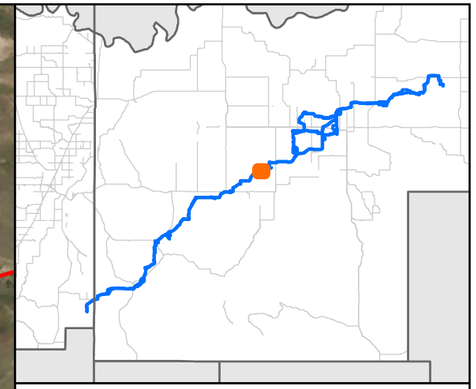
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 35 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- PLSS Section
- Environmental Survey Area

0 400 800
Feet





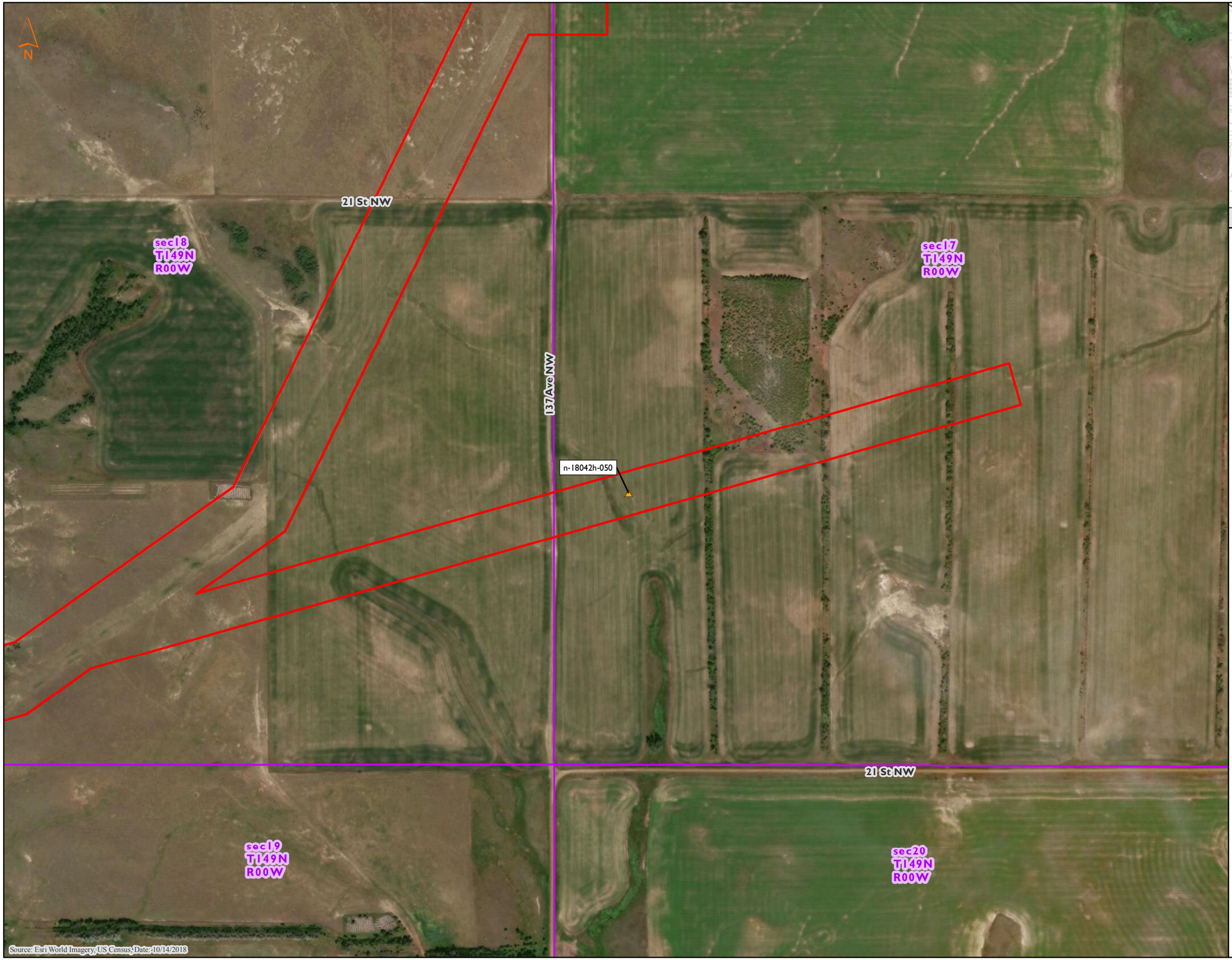
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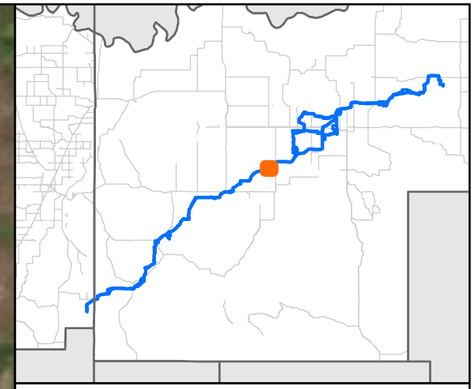
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 36 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





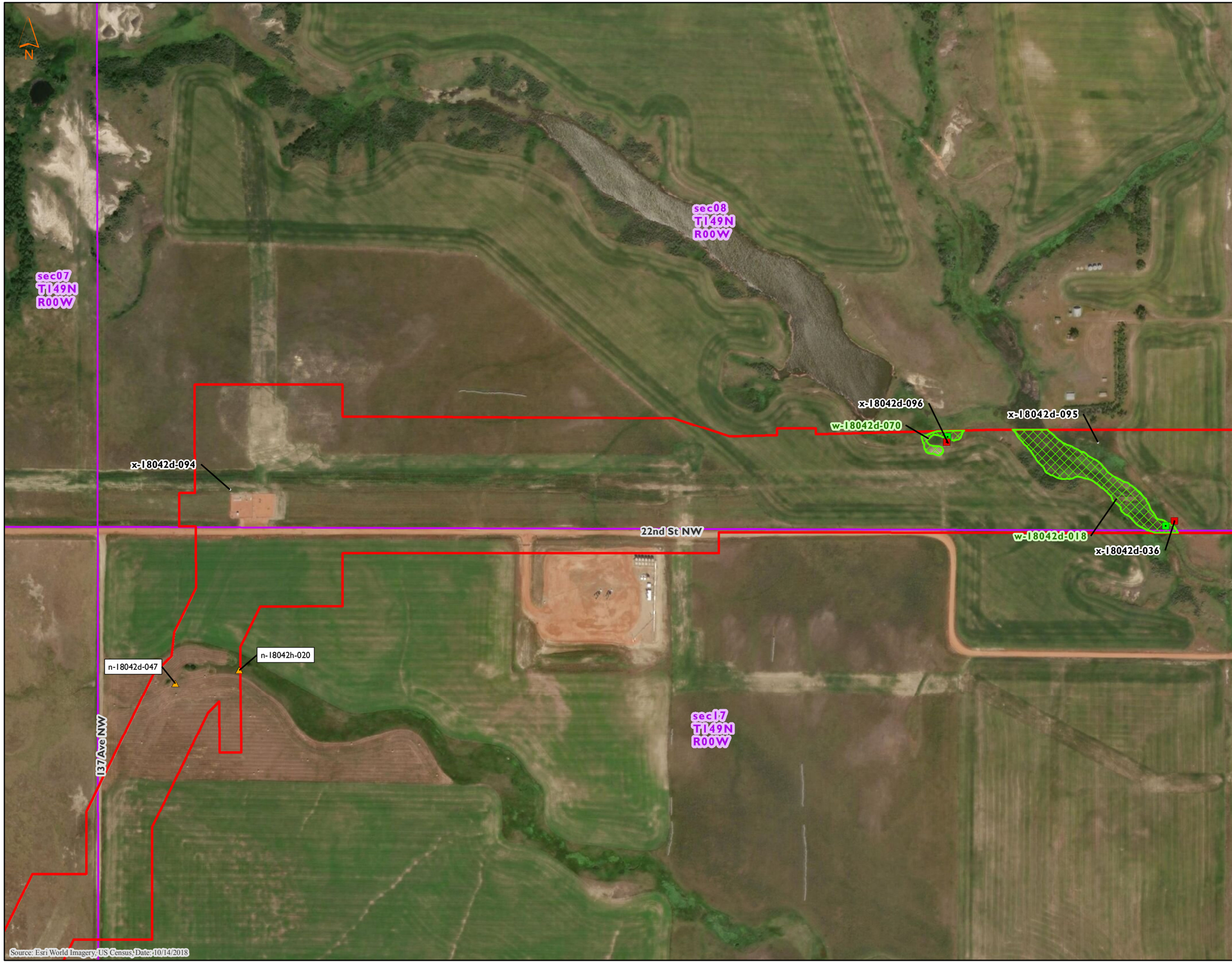
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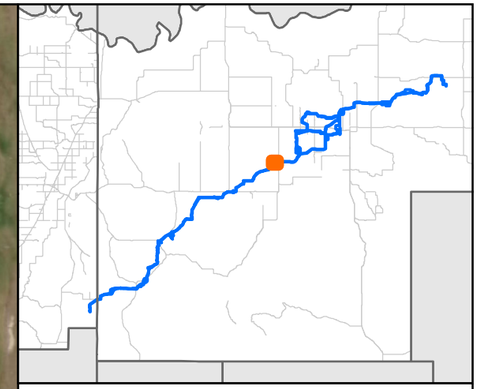
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 37 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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0 400 800
Feet





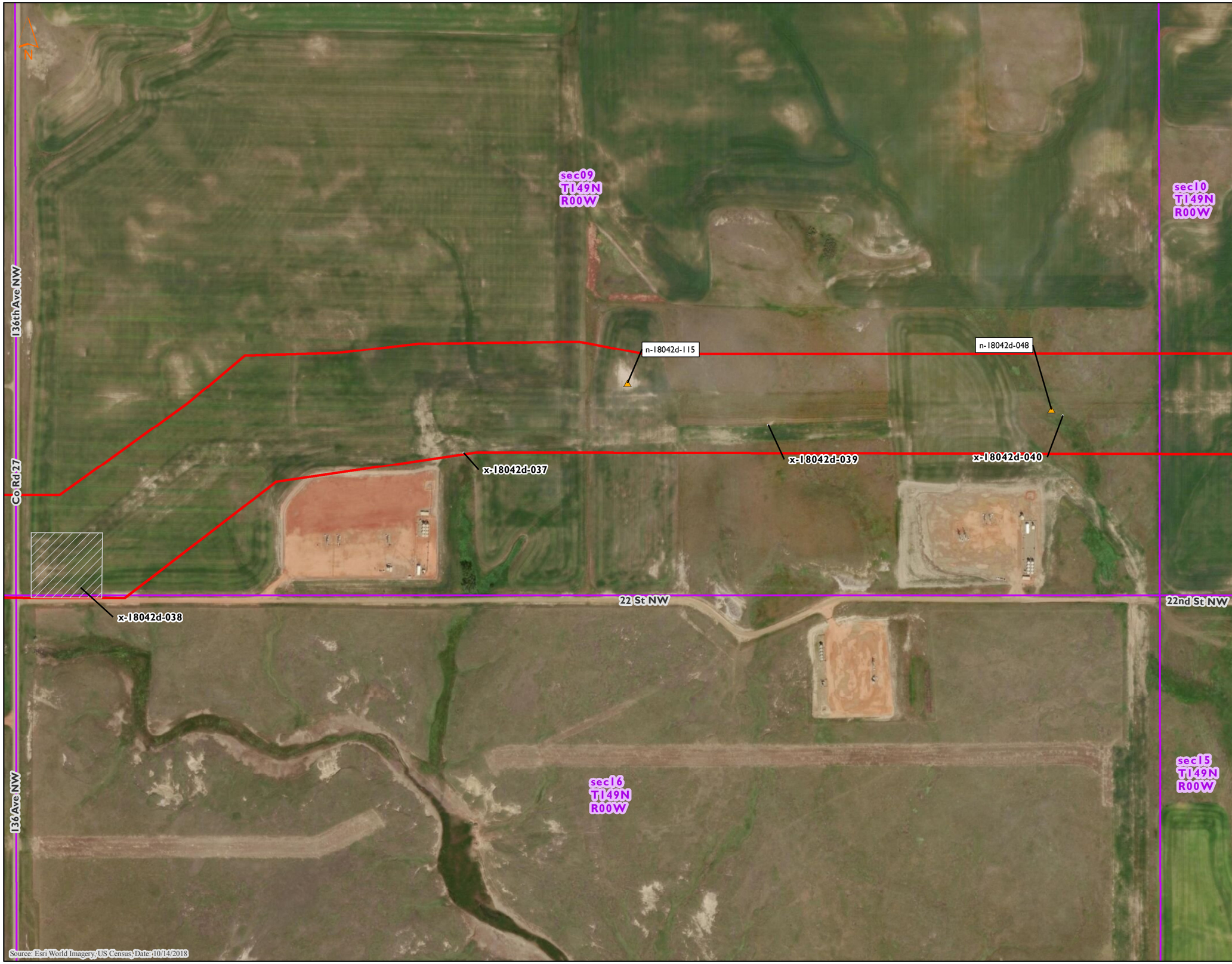
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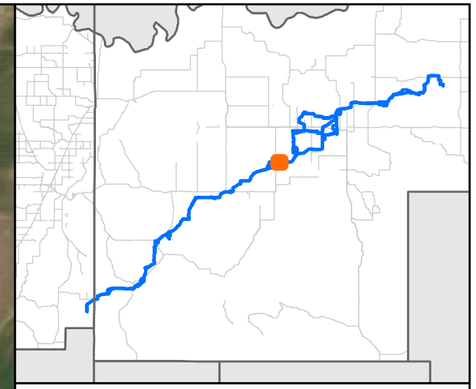
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 38 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- PLSS Section
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0 400 800
Feet





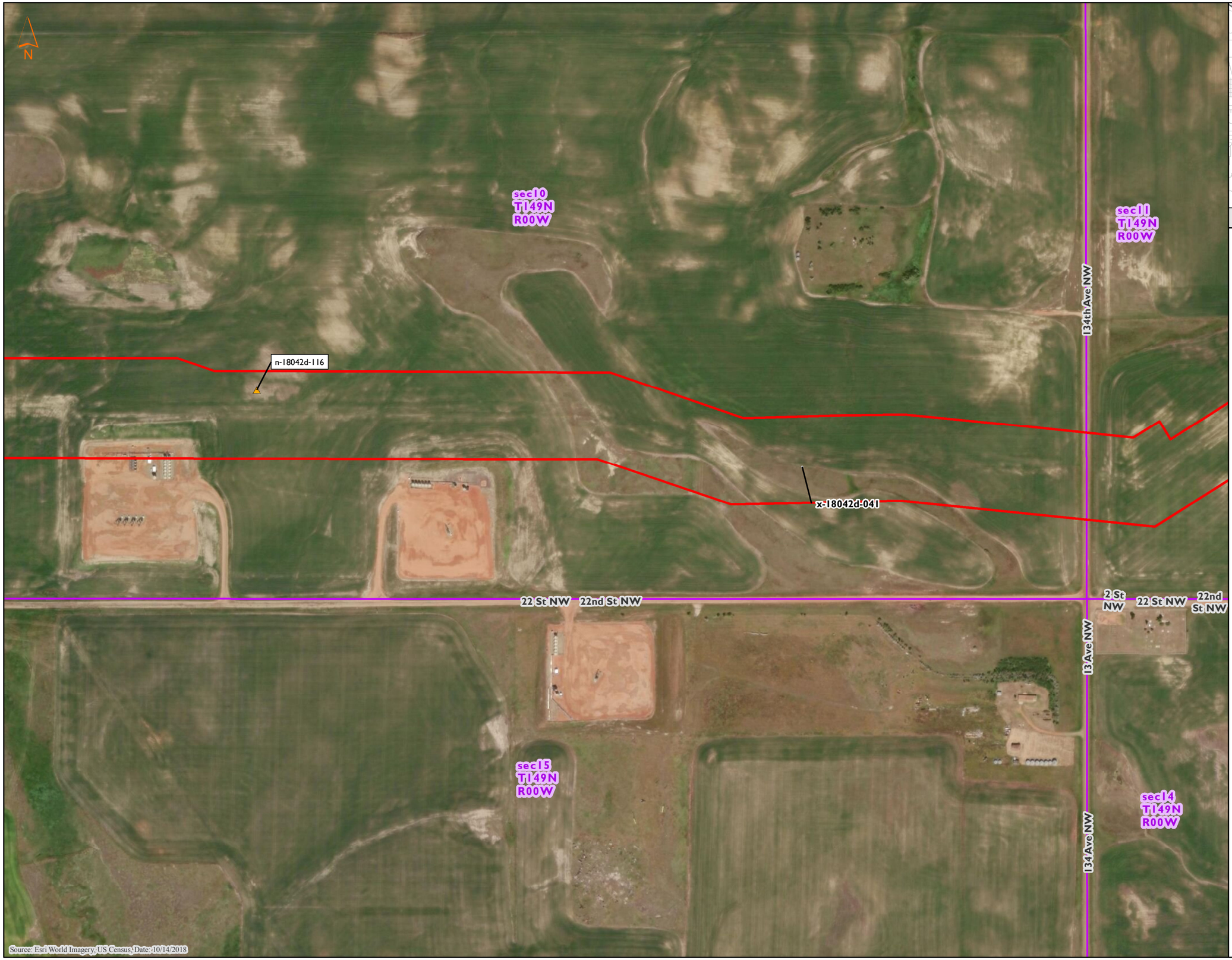
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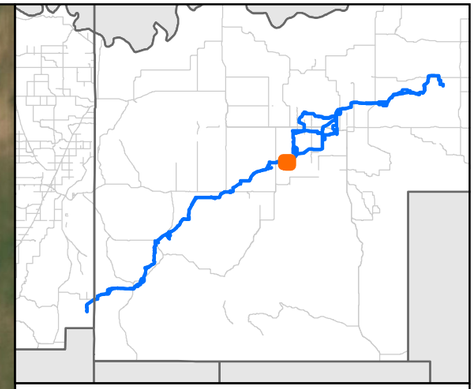
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 39 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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0 400 800
Feet





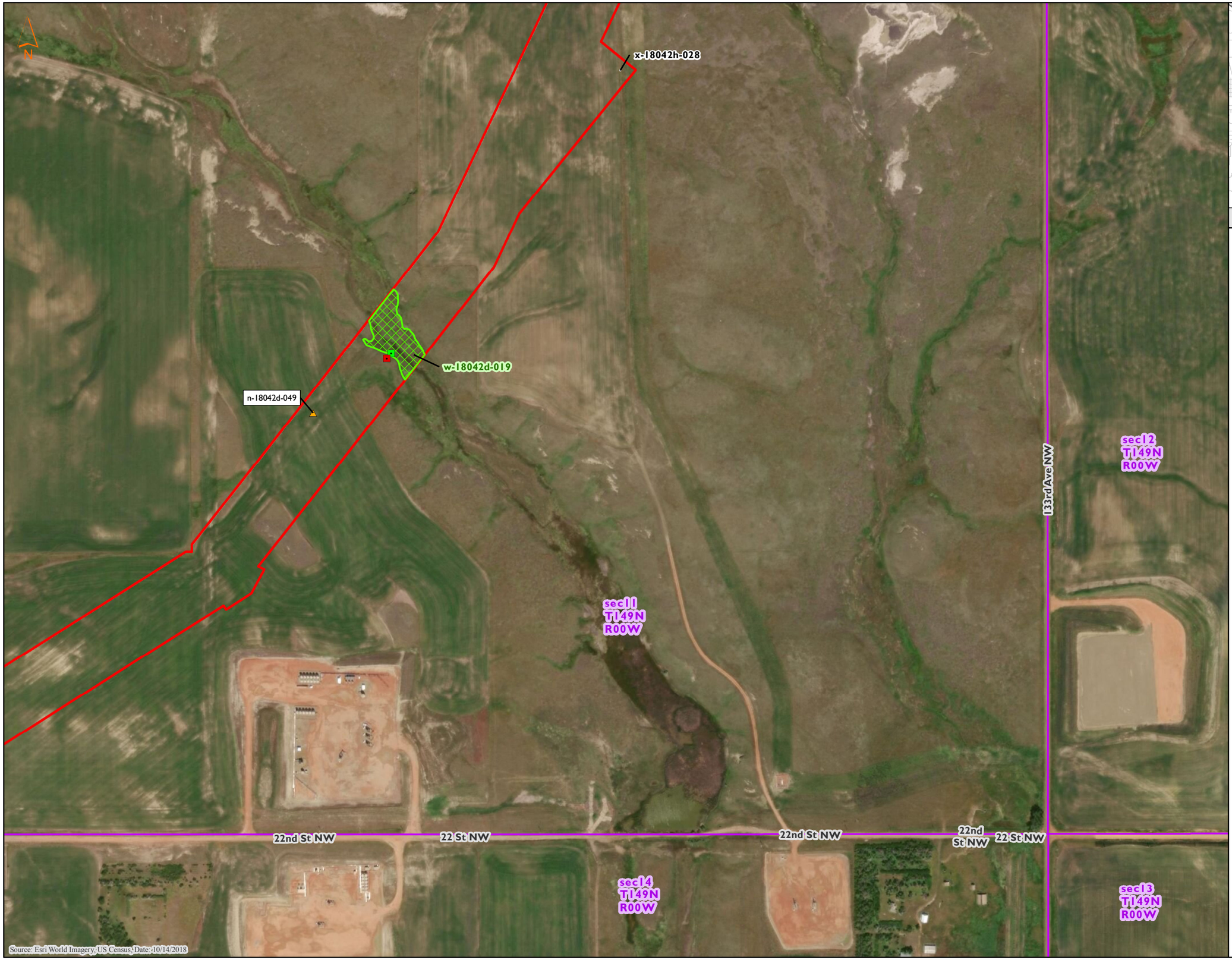
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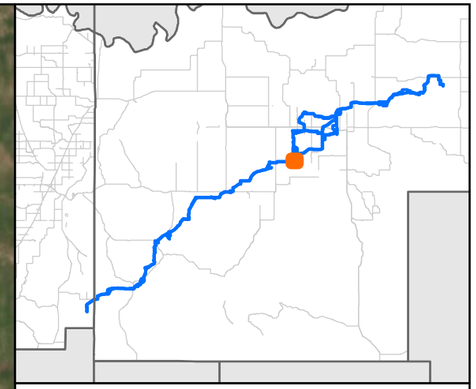
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 40 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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Feet





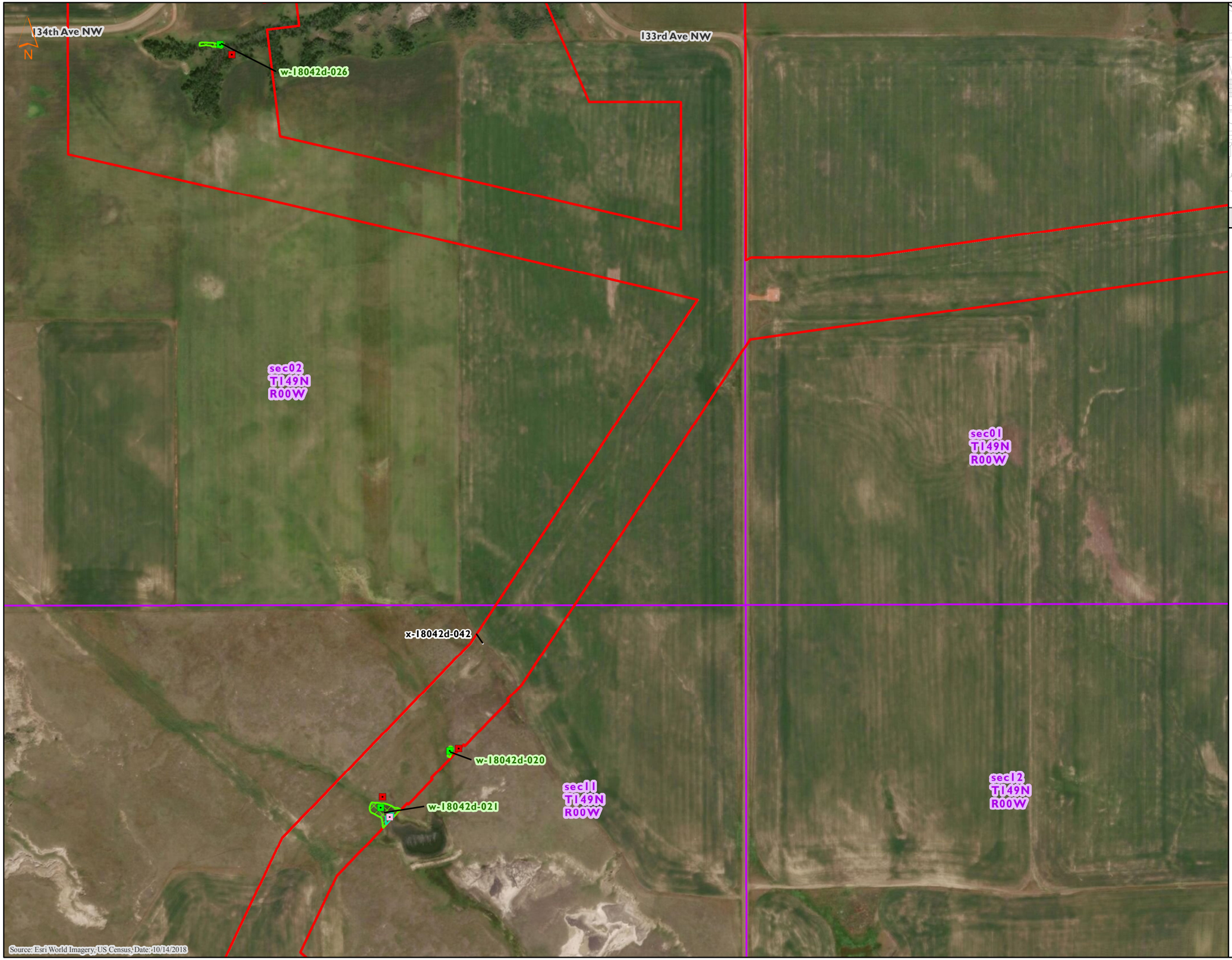
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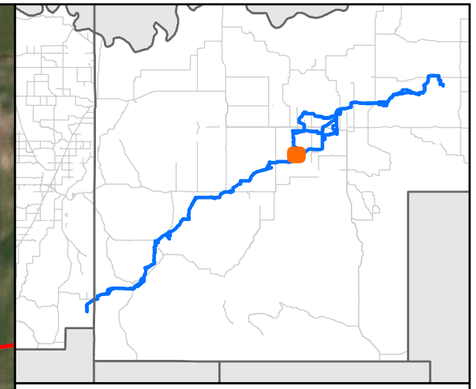
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 41 of 84

- Non-NHD/NWI Point
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- PFO Data Point
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Feet





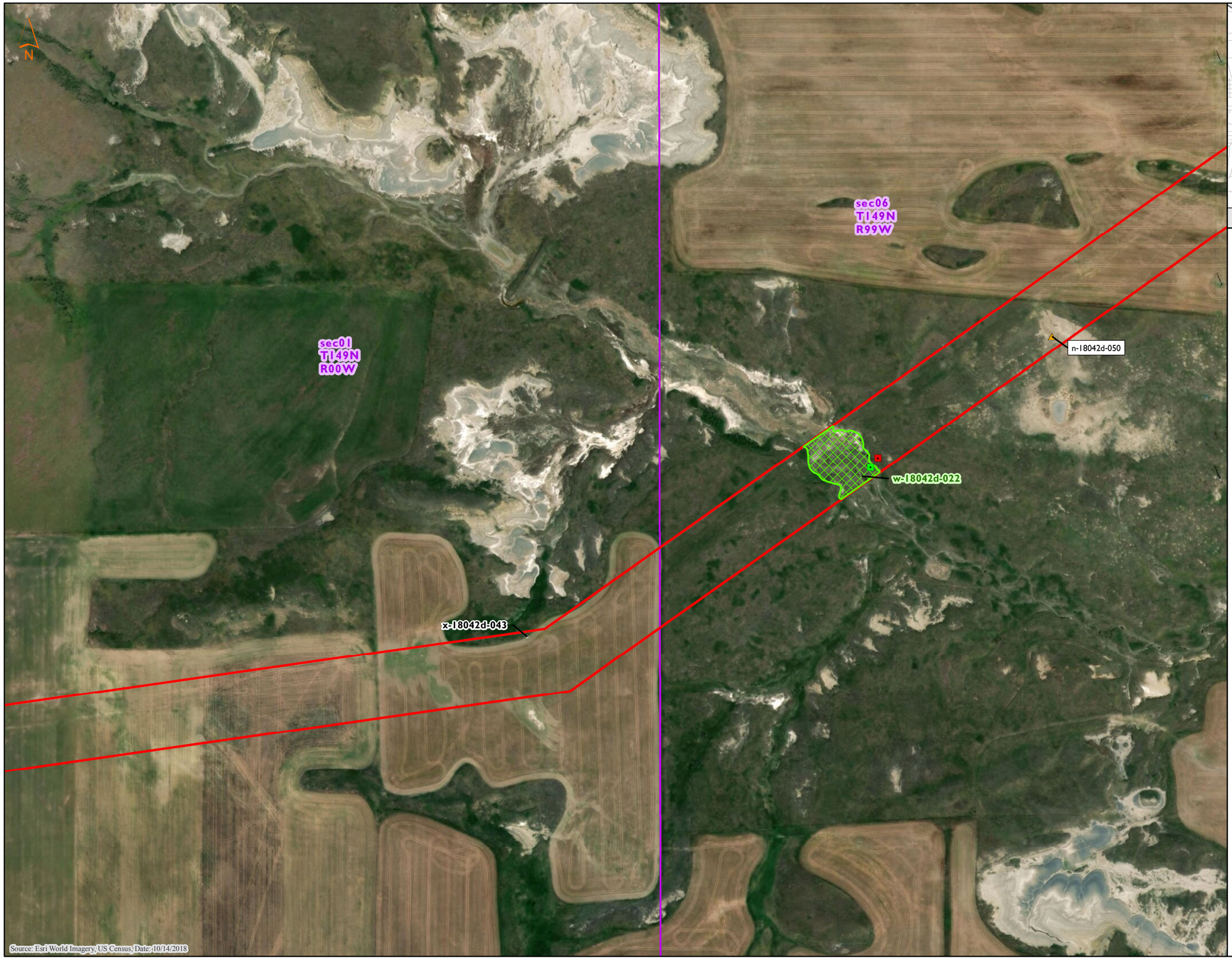
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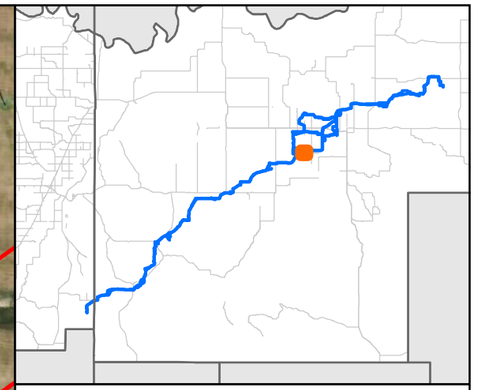
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 42 of 84

- Non-NHD/NWI Point
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- PFO Data Point
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Feet





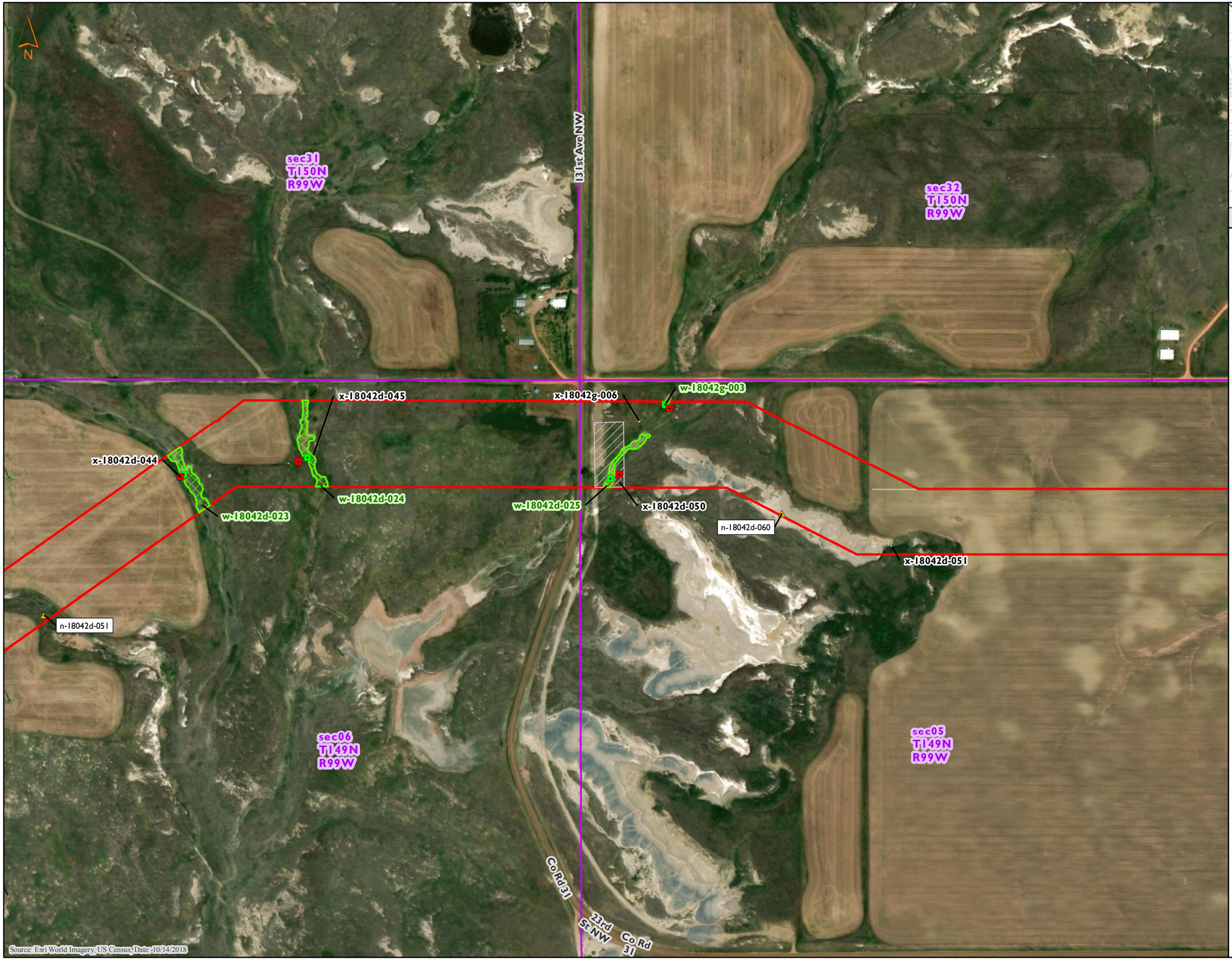
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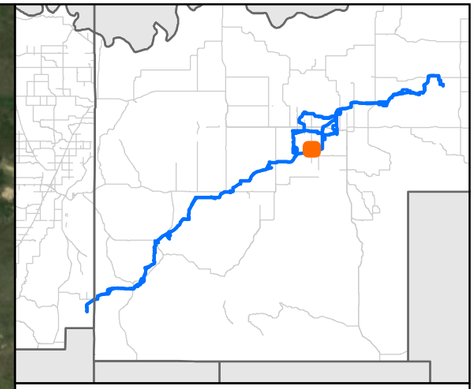
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 43 of 84

- Non-NHD/NWI Point
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- PFO Data Point
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Feet





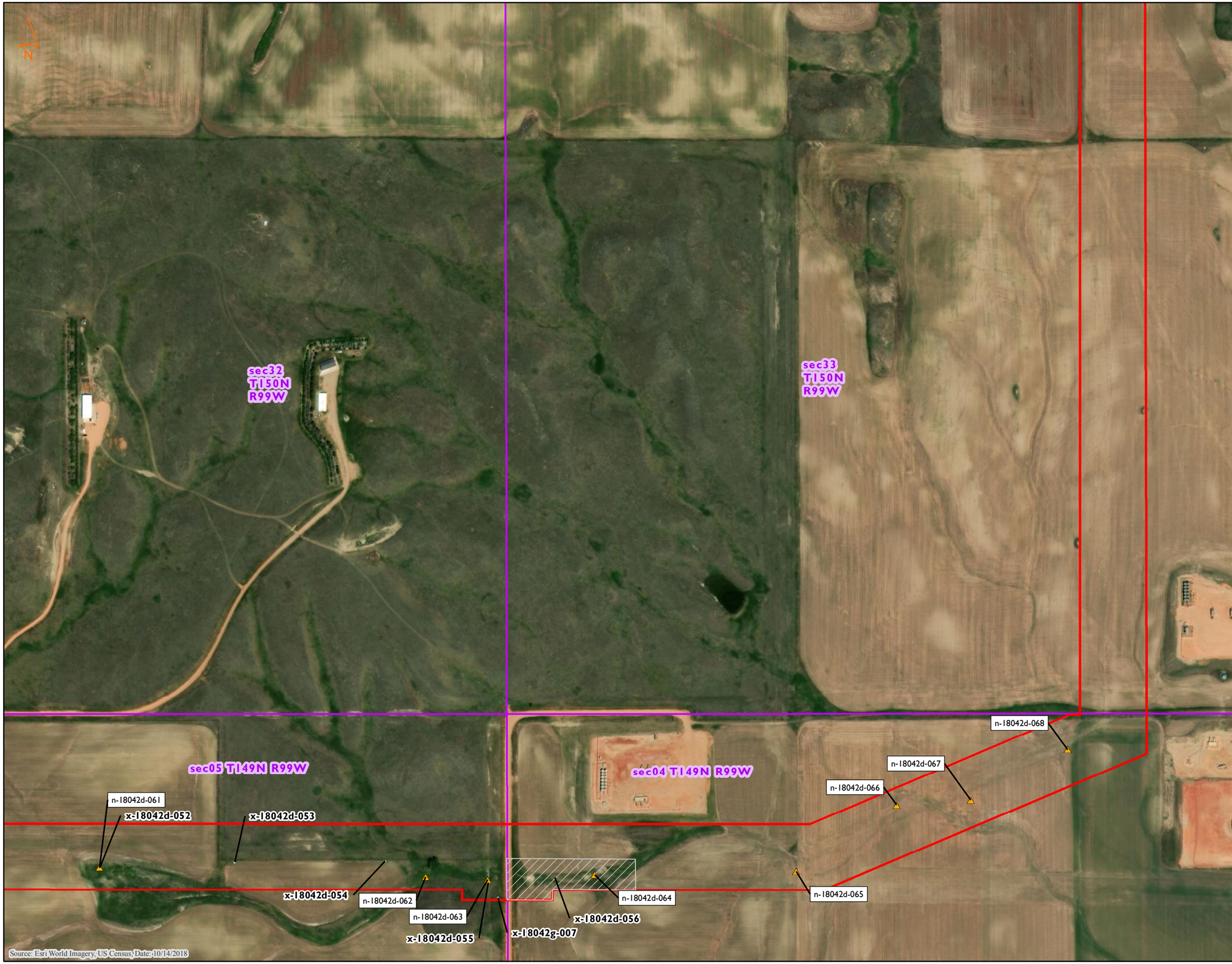
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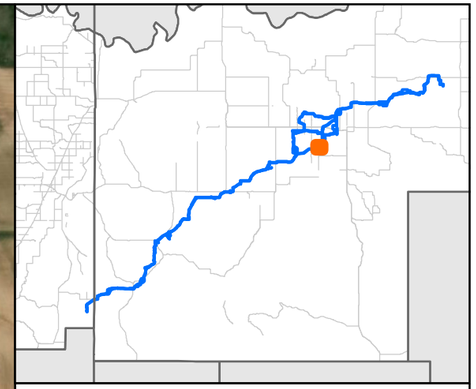
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 44 of 84

- Non-NHD/NWI Point
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Feet





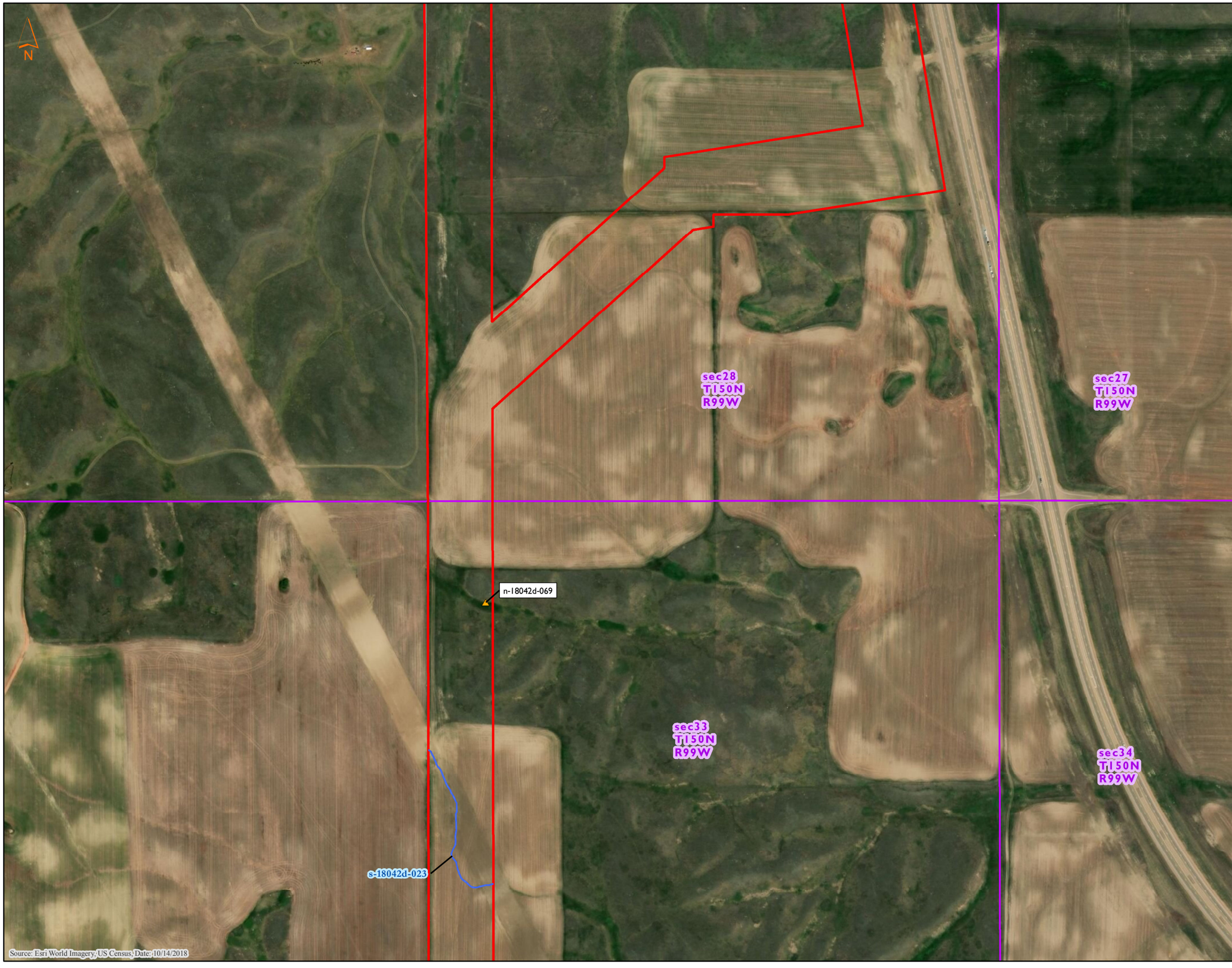
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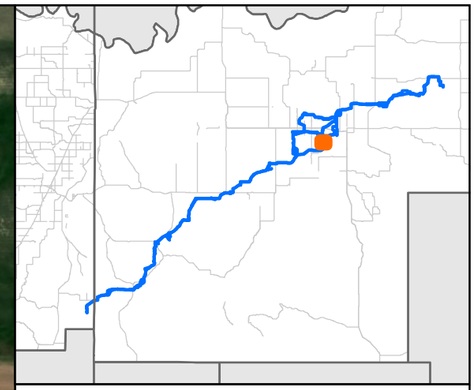
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 45 of 84

- Non-NHD/NWI Point
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- PFO Data Point
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Feet





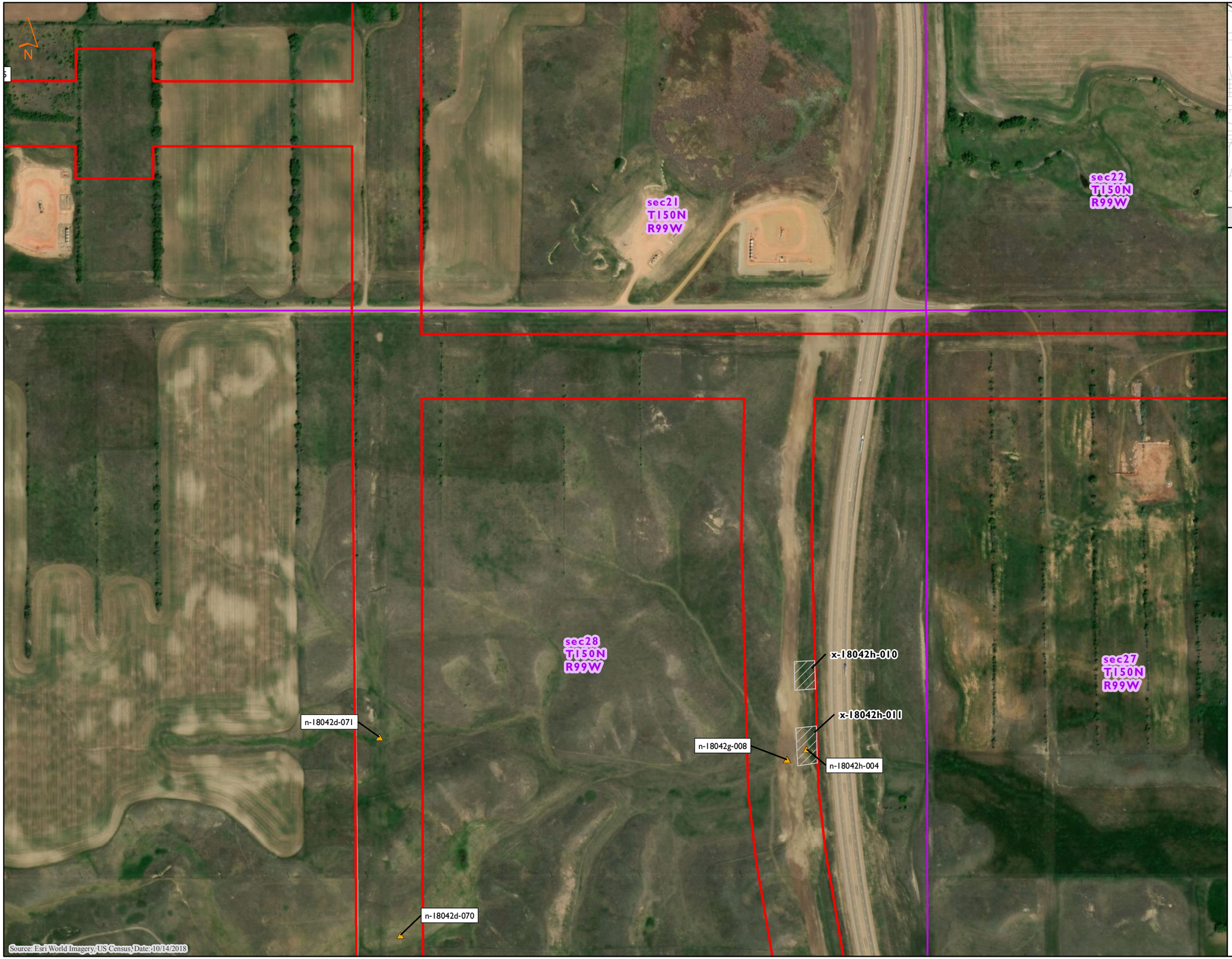
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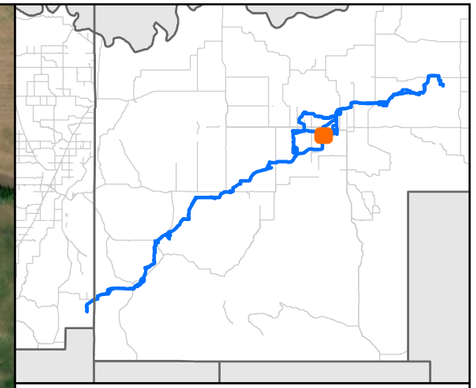
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 46 of 84

- Non-NHD/NWI Point
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0 400 800
Feet





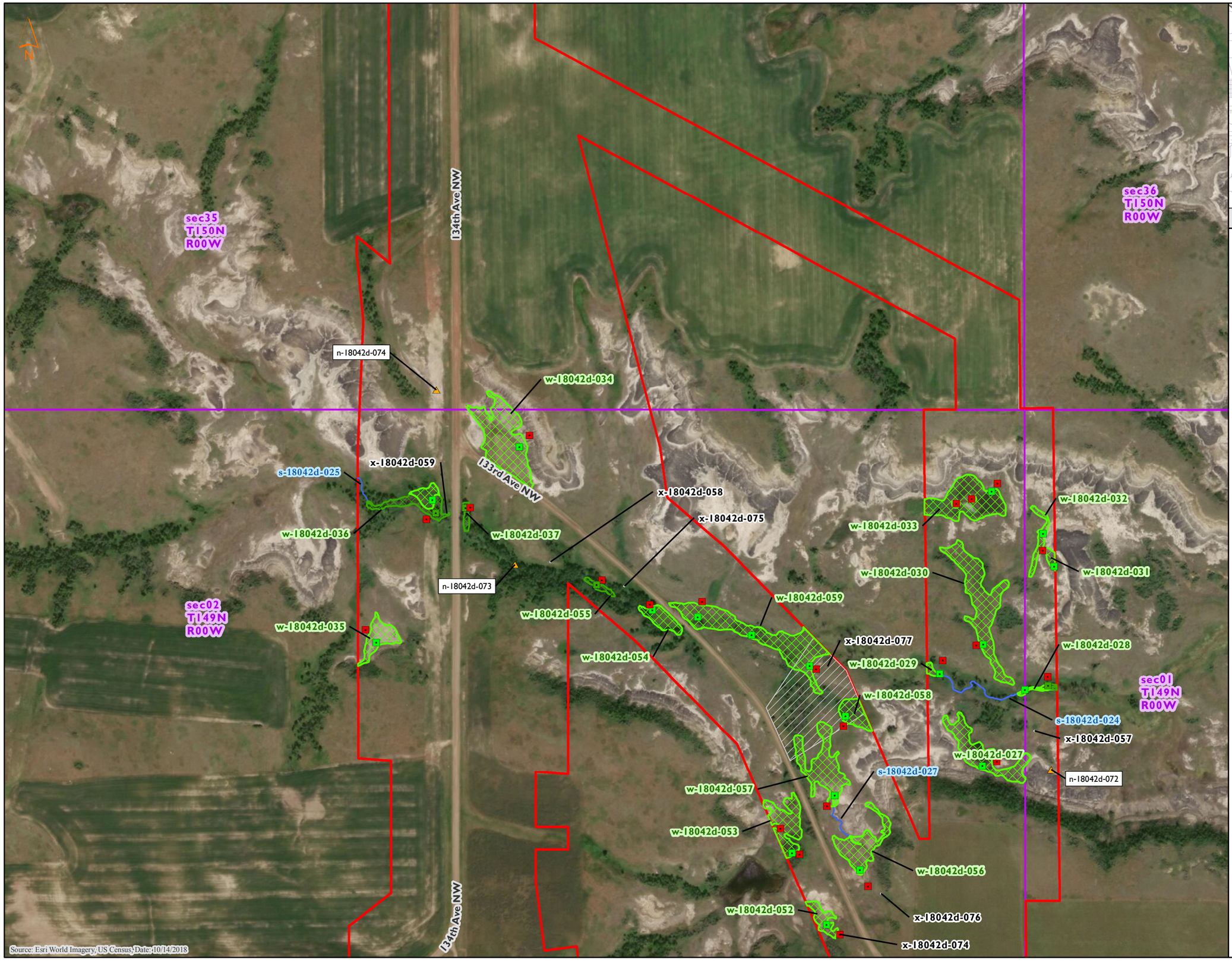
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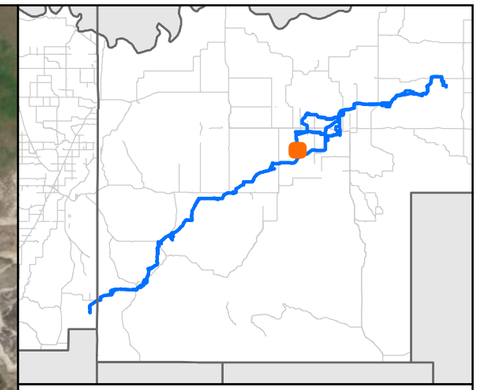
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 47 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





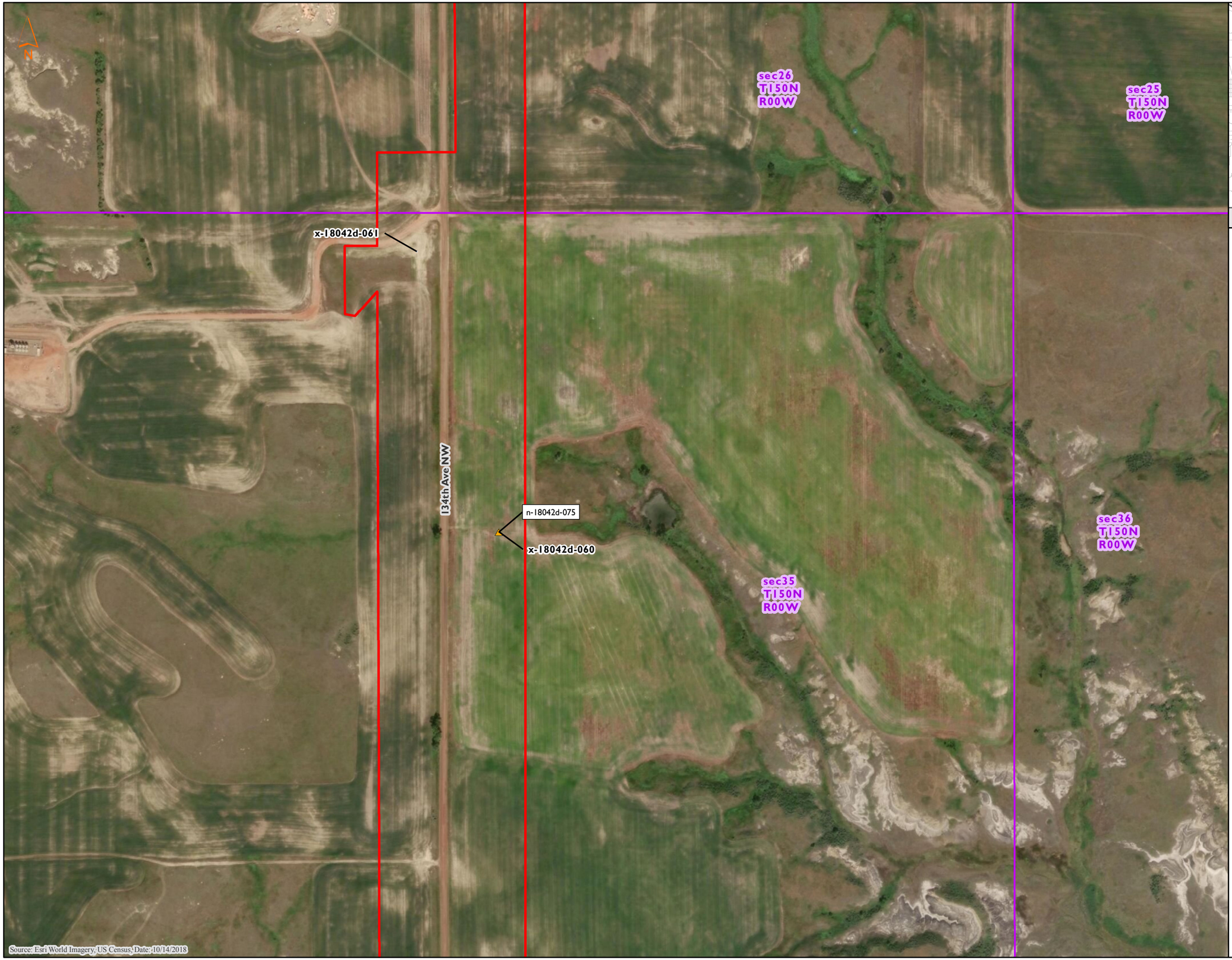
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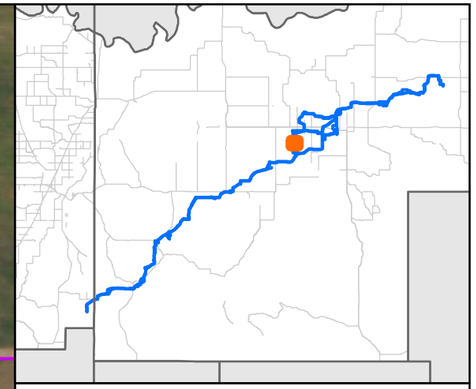
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 48 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





MNR

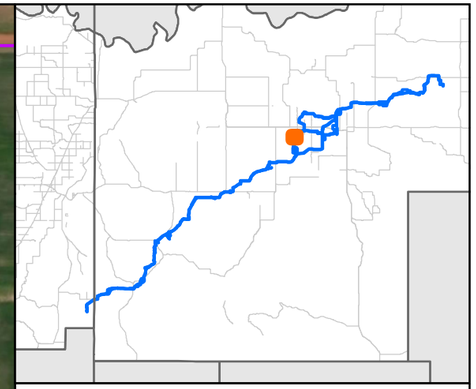
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 49 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





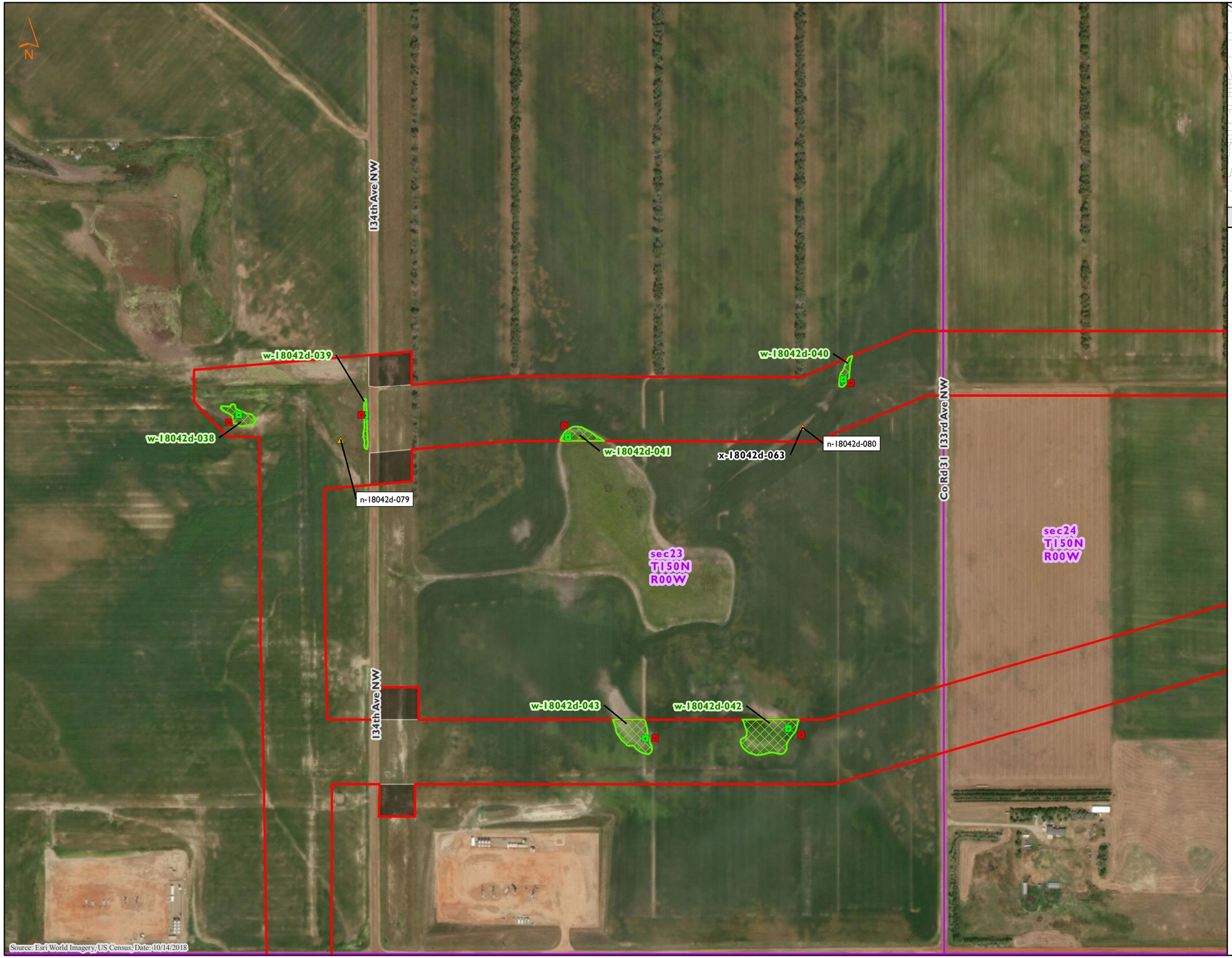
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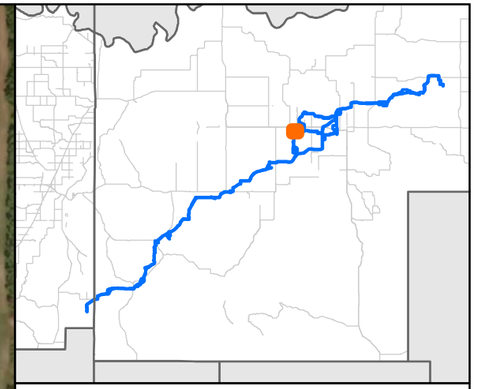
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 50 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





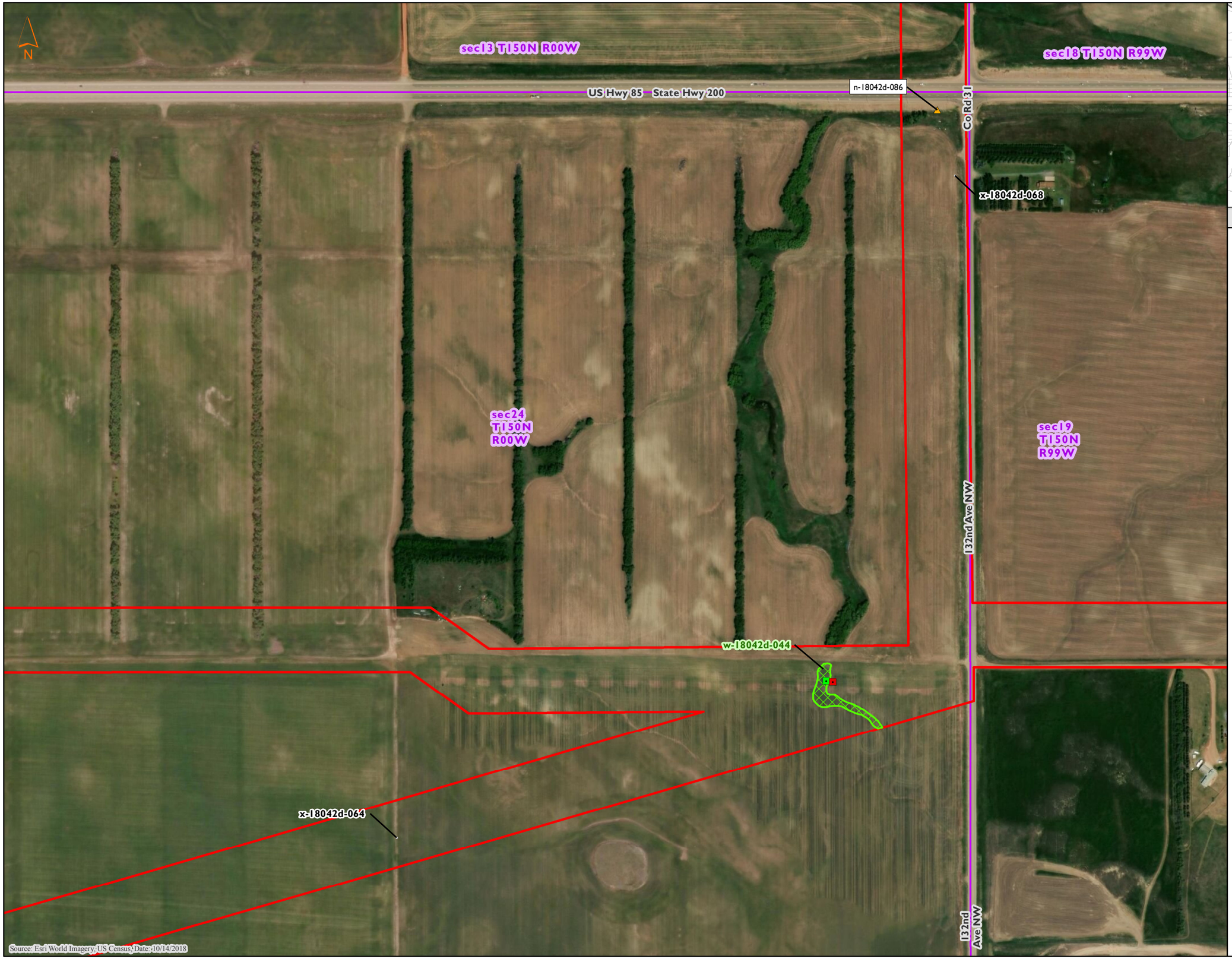
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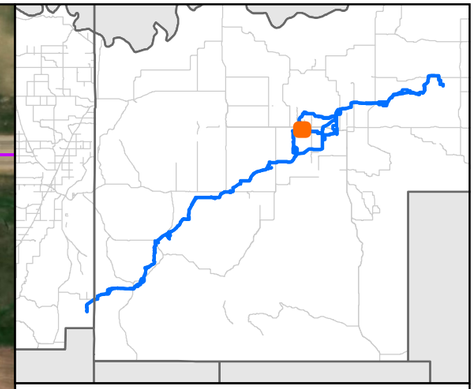
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 51 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





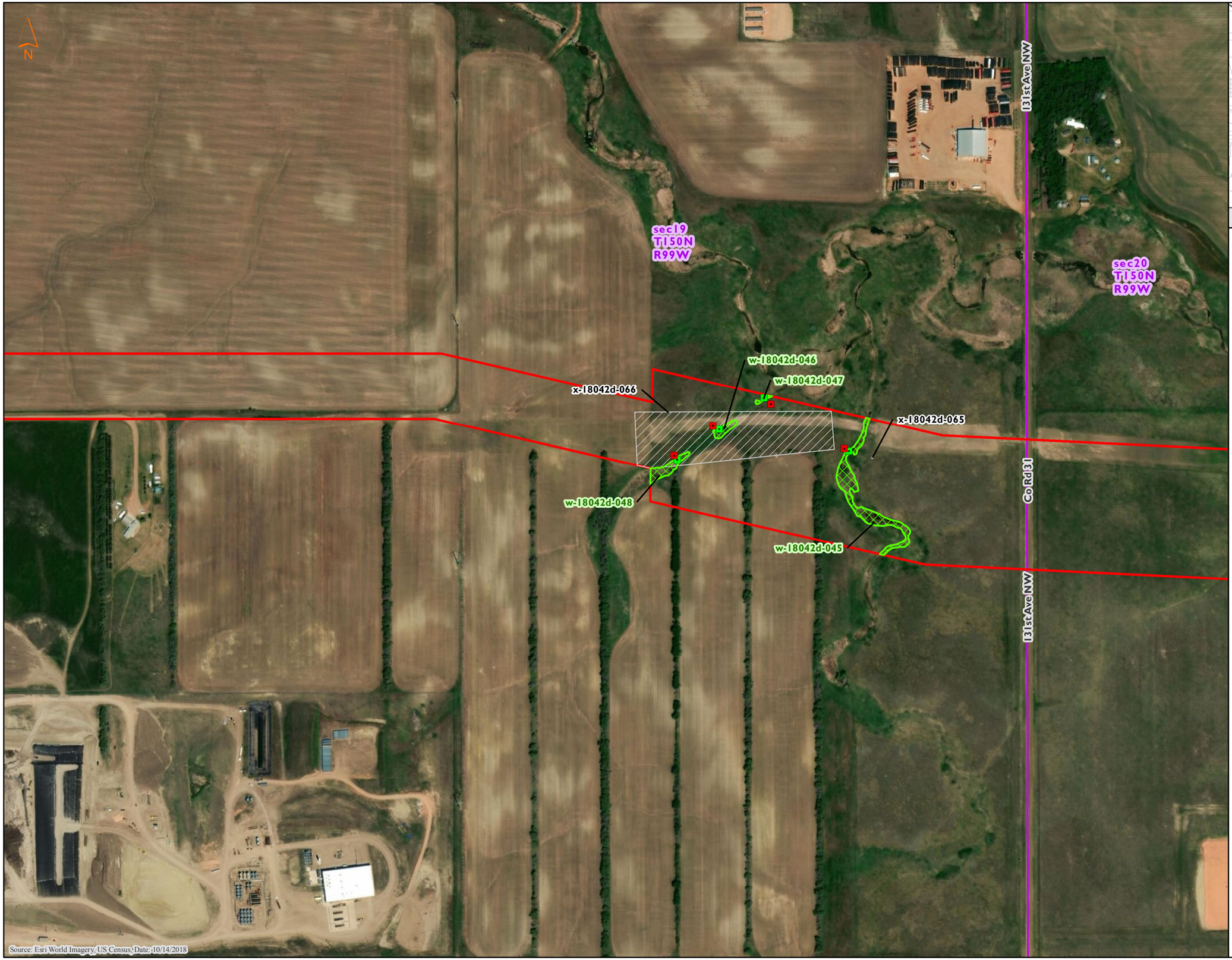
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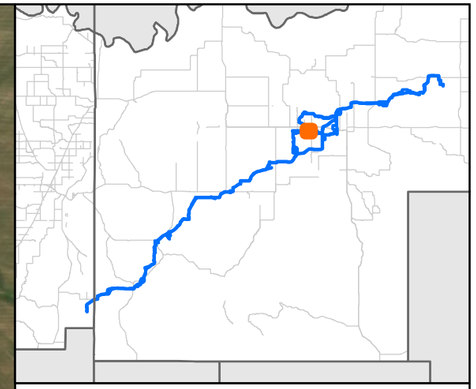
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 52 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
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- Upland Data Point
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- Noxious Weed Population
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- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





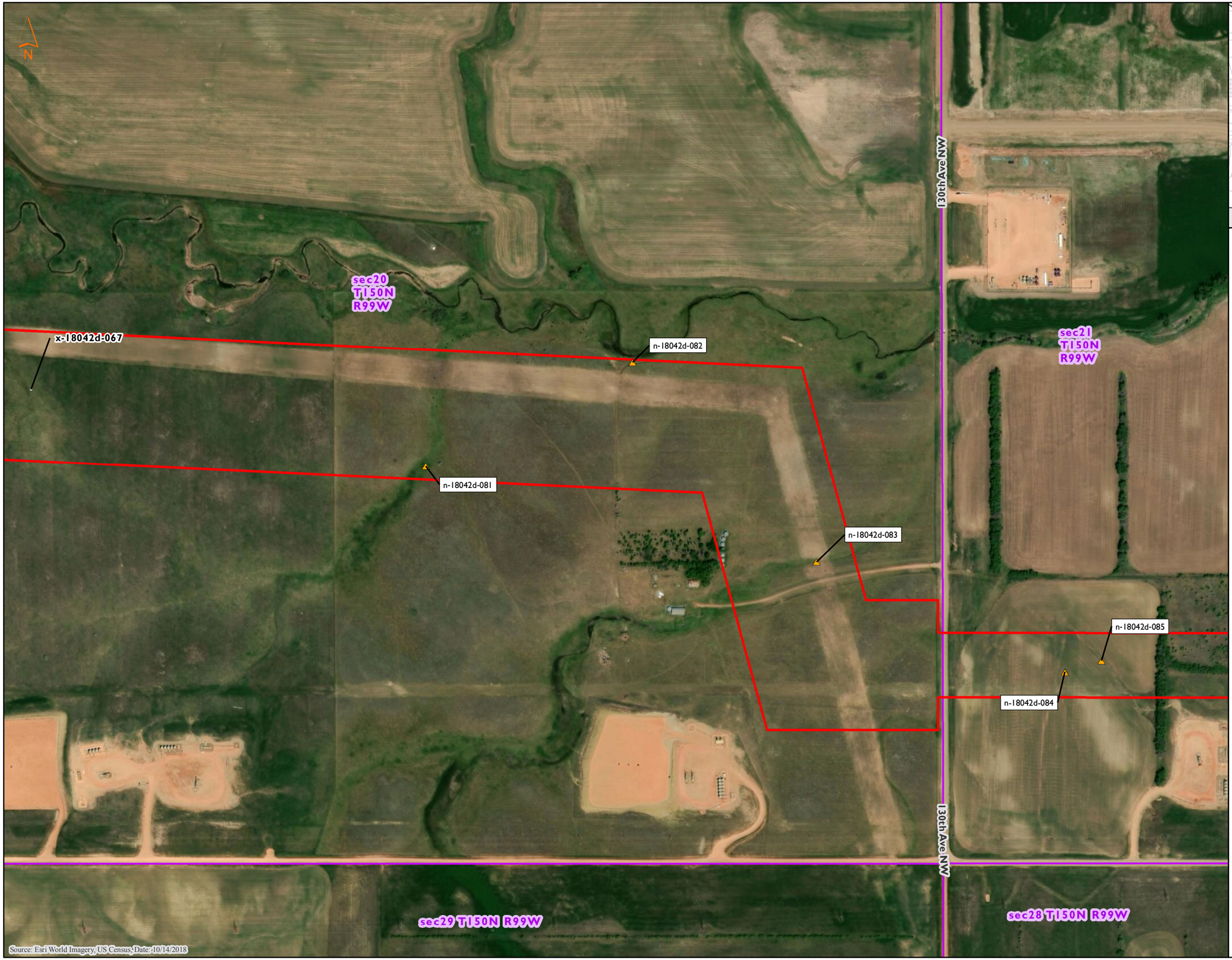
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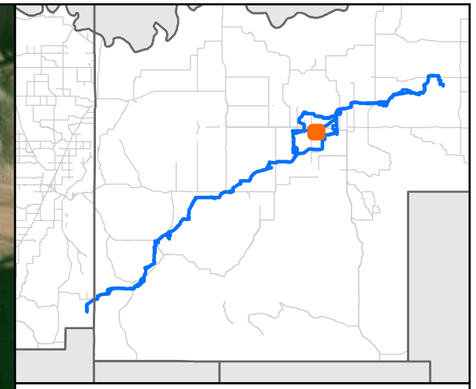
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 53 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Noxious Weed Population
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- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





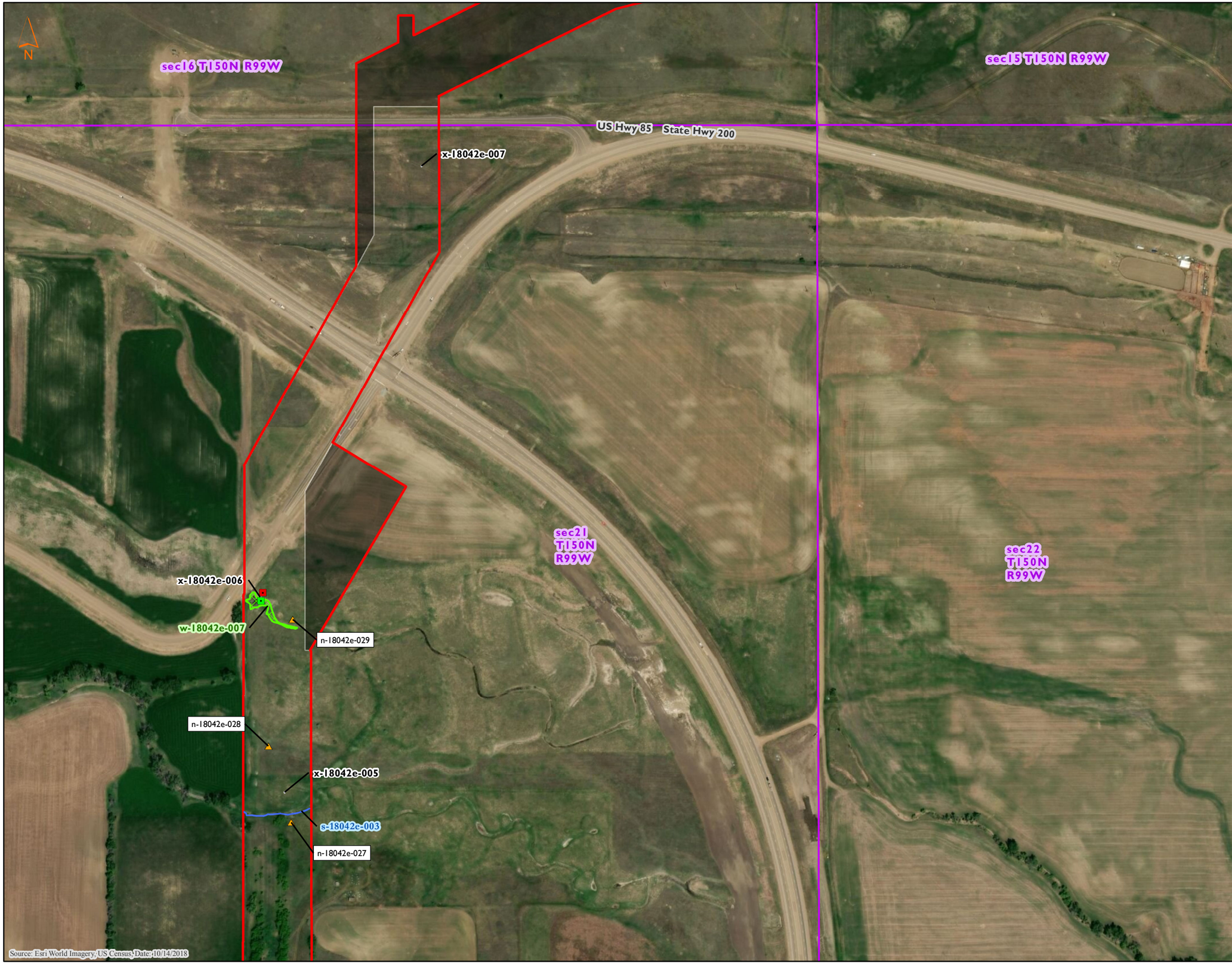
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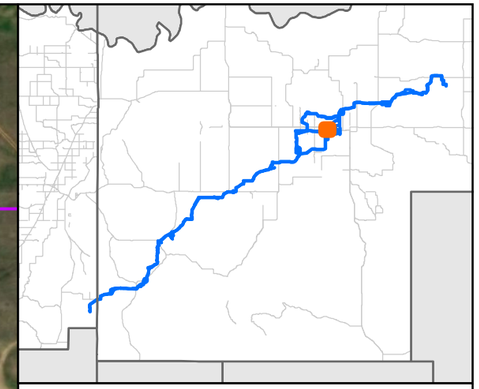
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 54 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
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- Noxious Weed Population
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- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





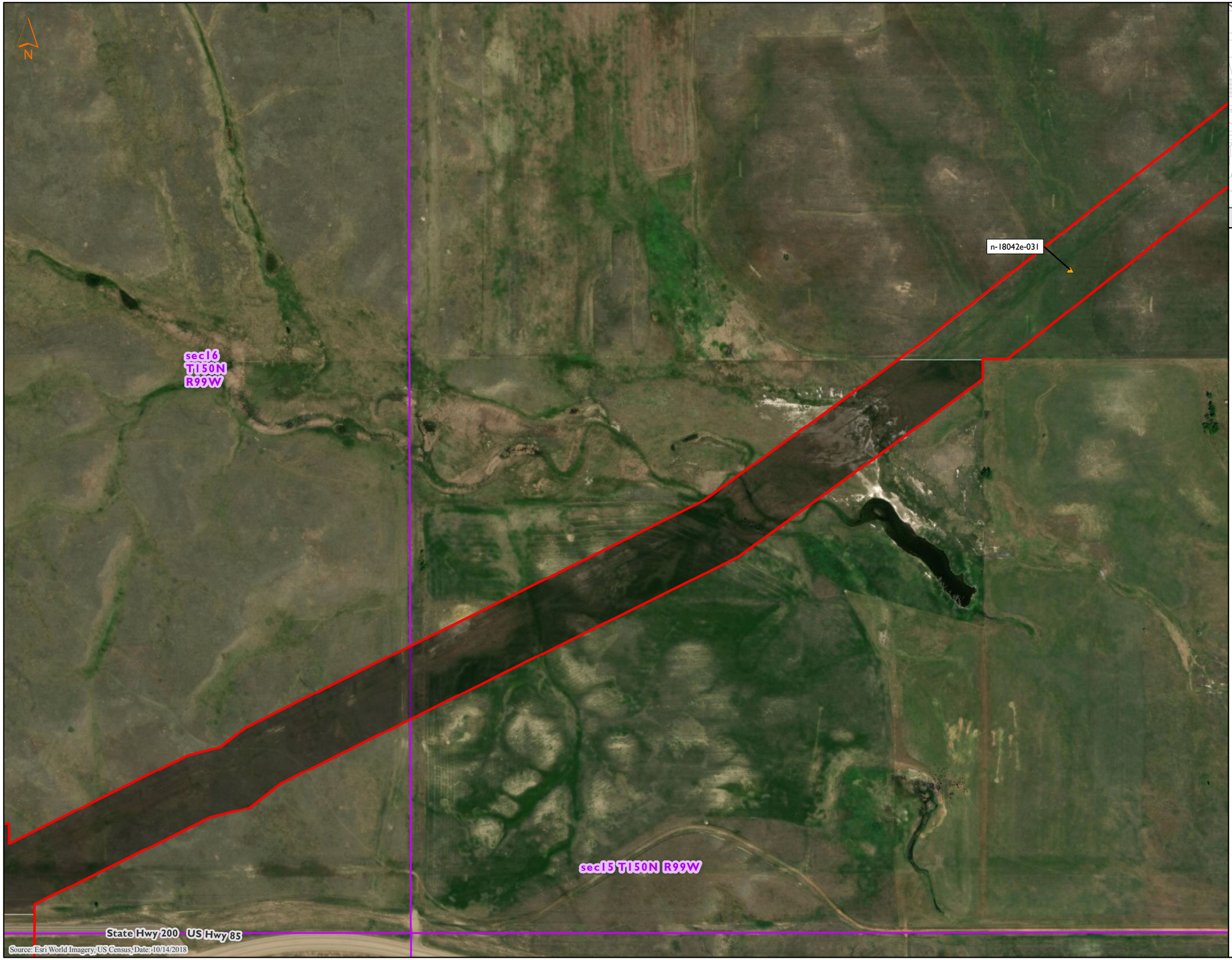
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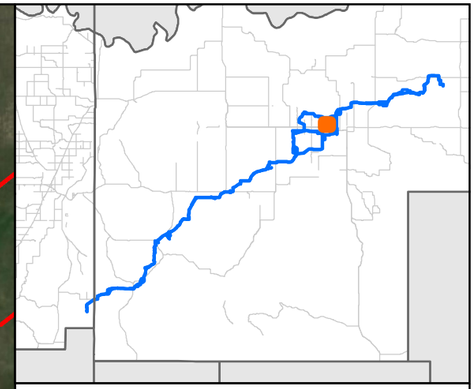
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 55 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
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- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





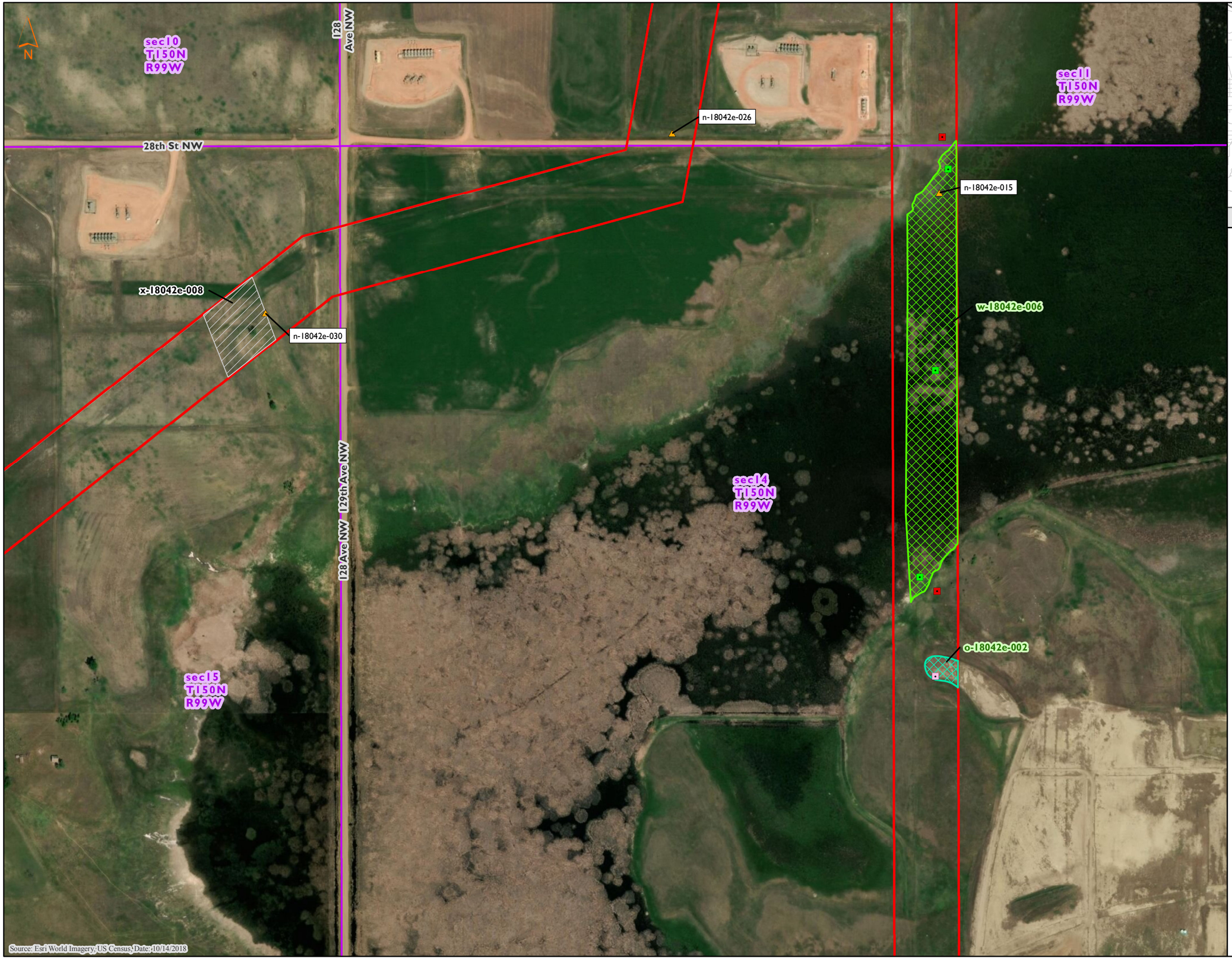
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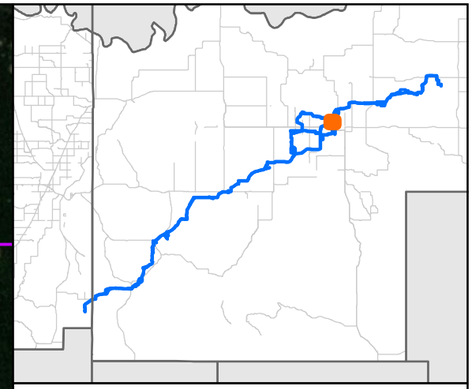
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 56 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Upland Data Point
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- Noxious Weed Population
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- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





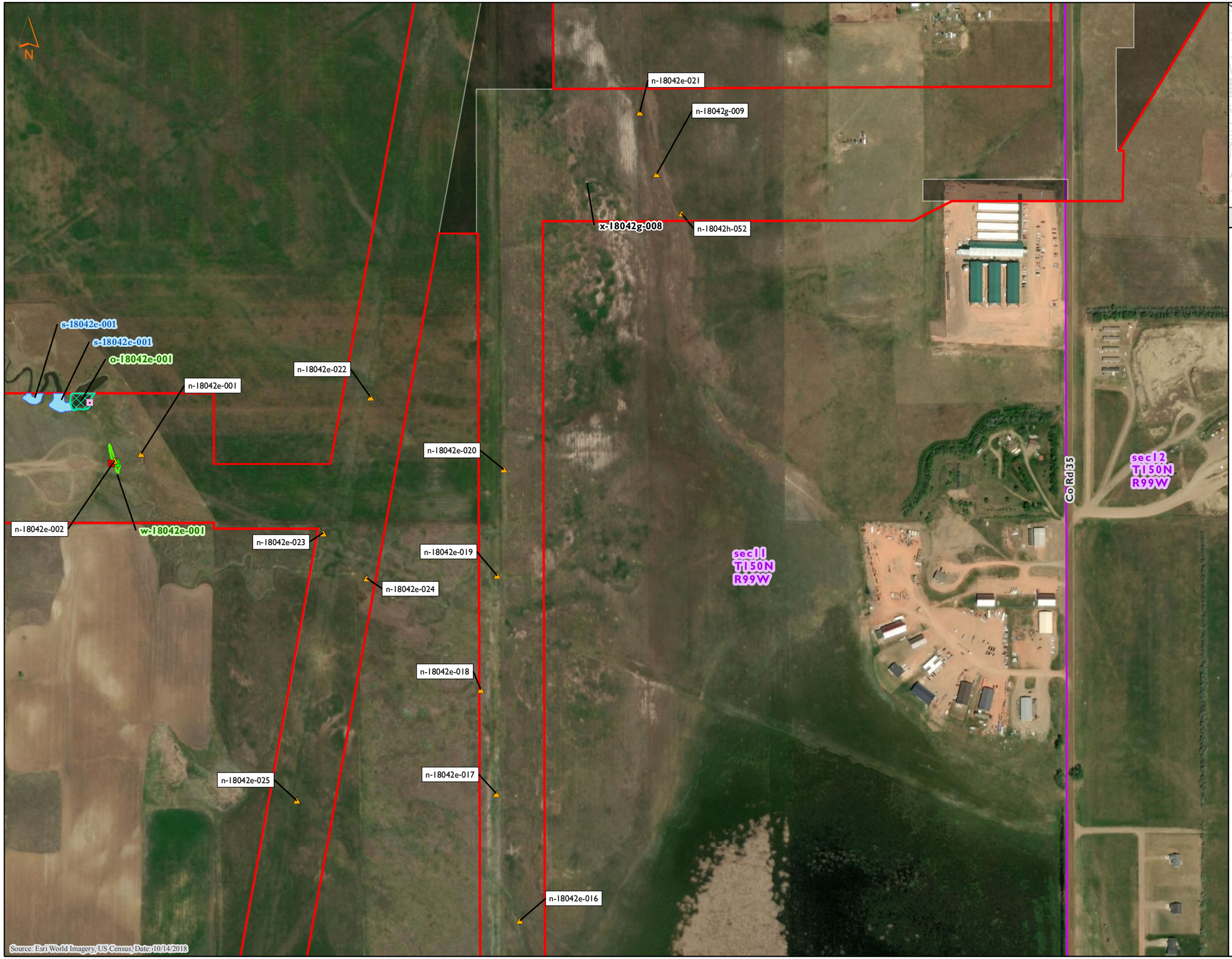
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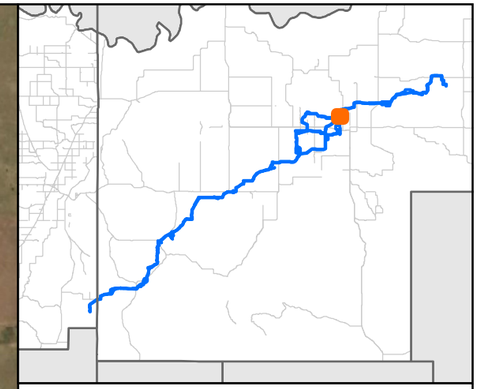
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 57 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





MNR

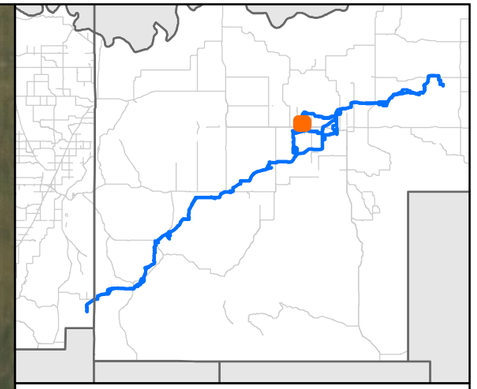
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 58 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
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- Upland Data Point
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- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





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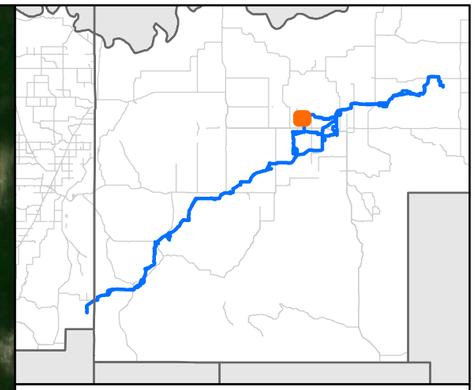
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 59 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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0 400 800
Feet





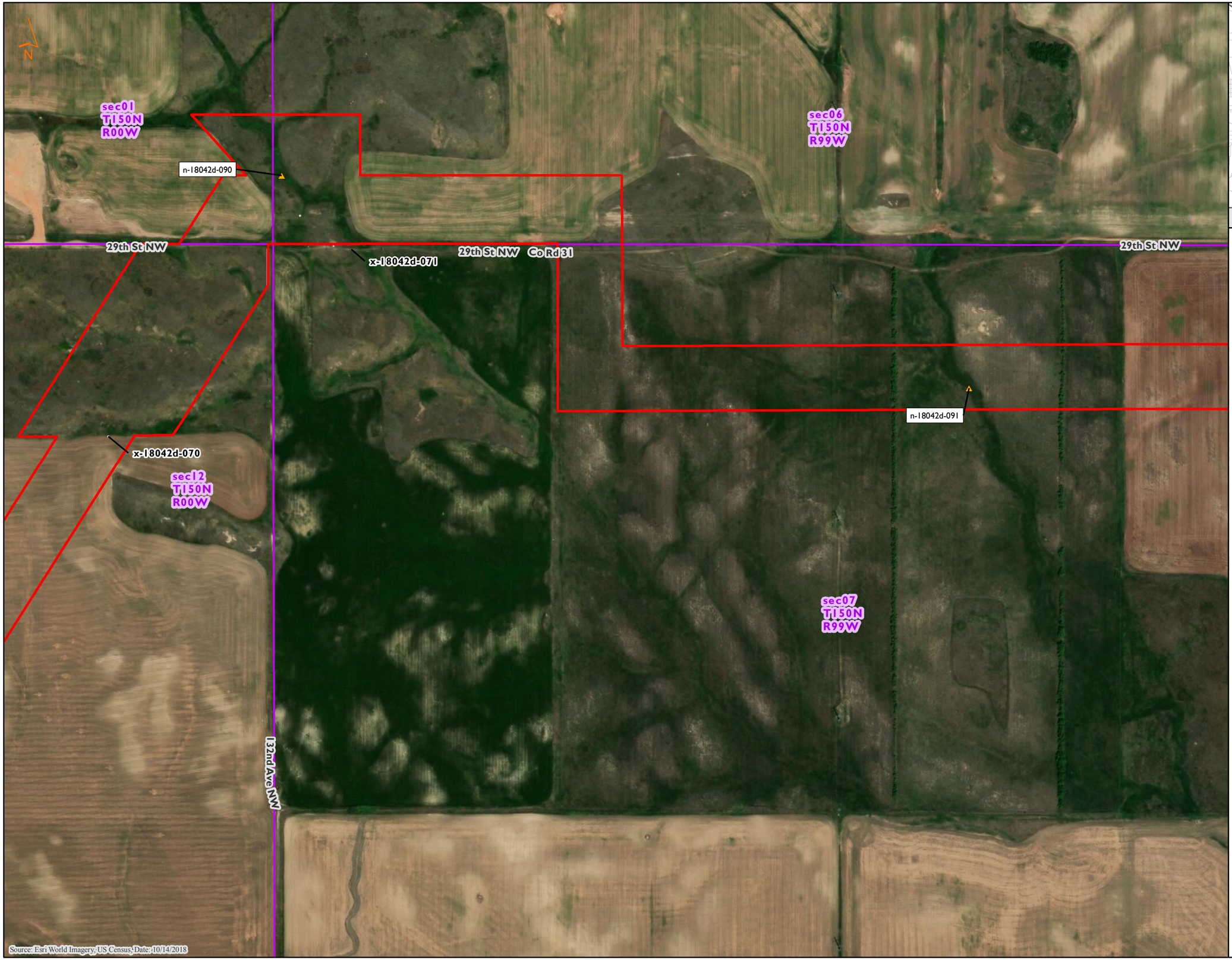
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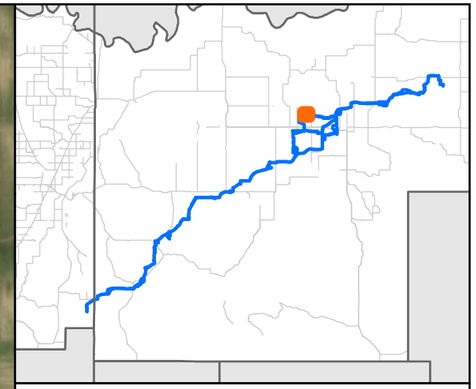
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 60 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- PLSS Section
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0 400 800
Feet





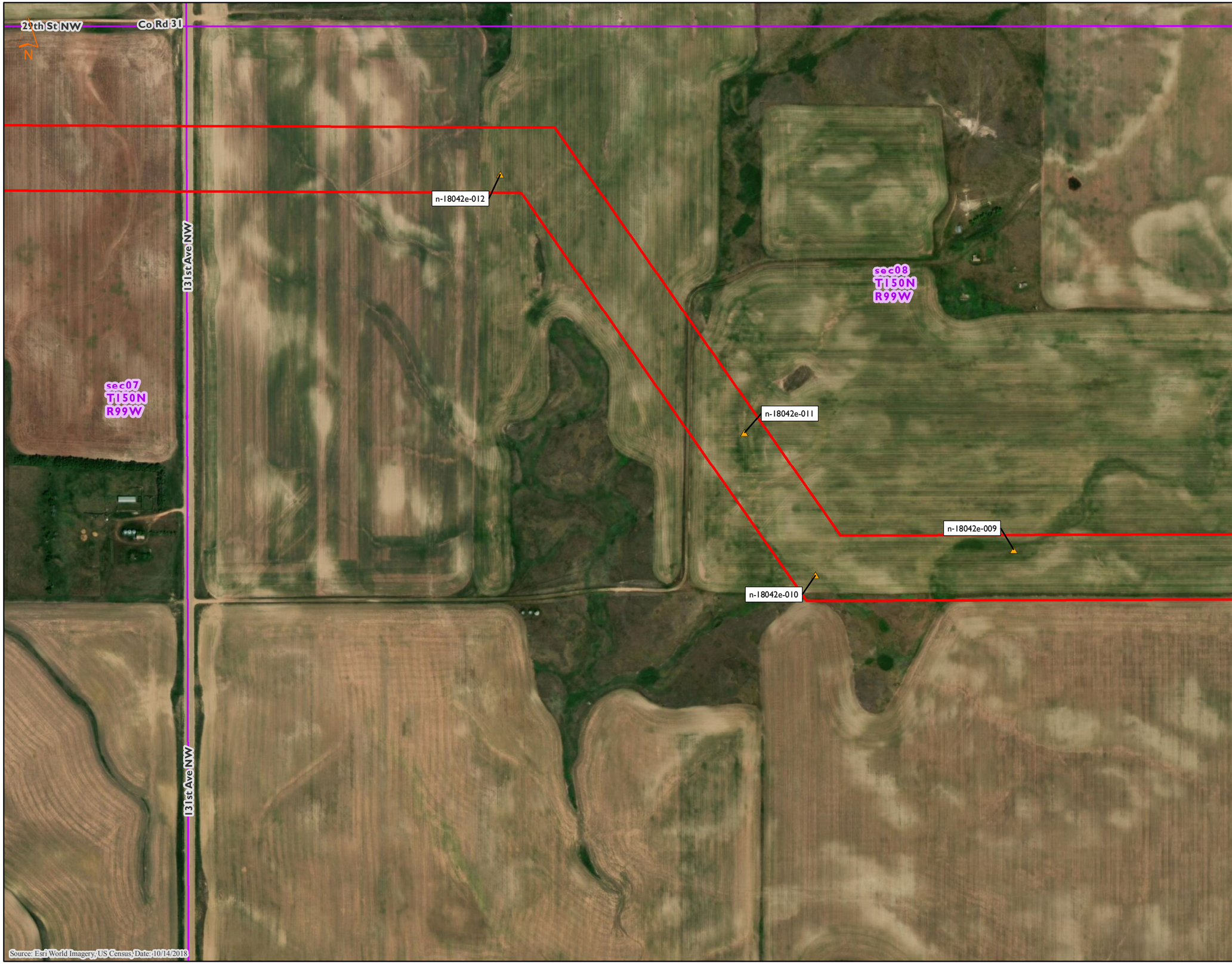
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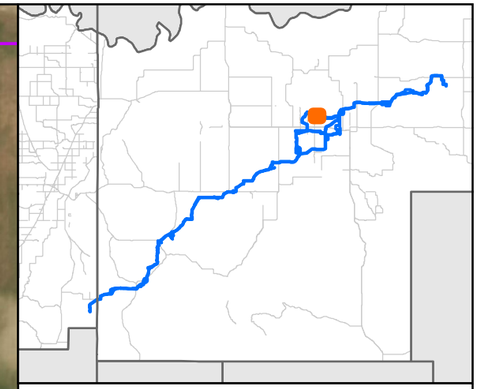
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 61 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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- PLSS Section
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0 400 800
Feet





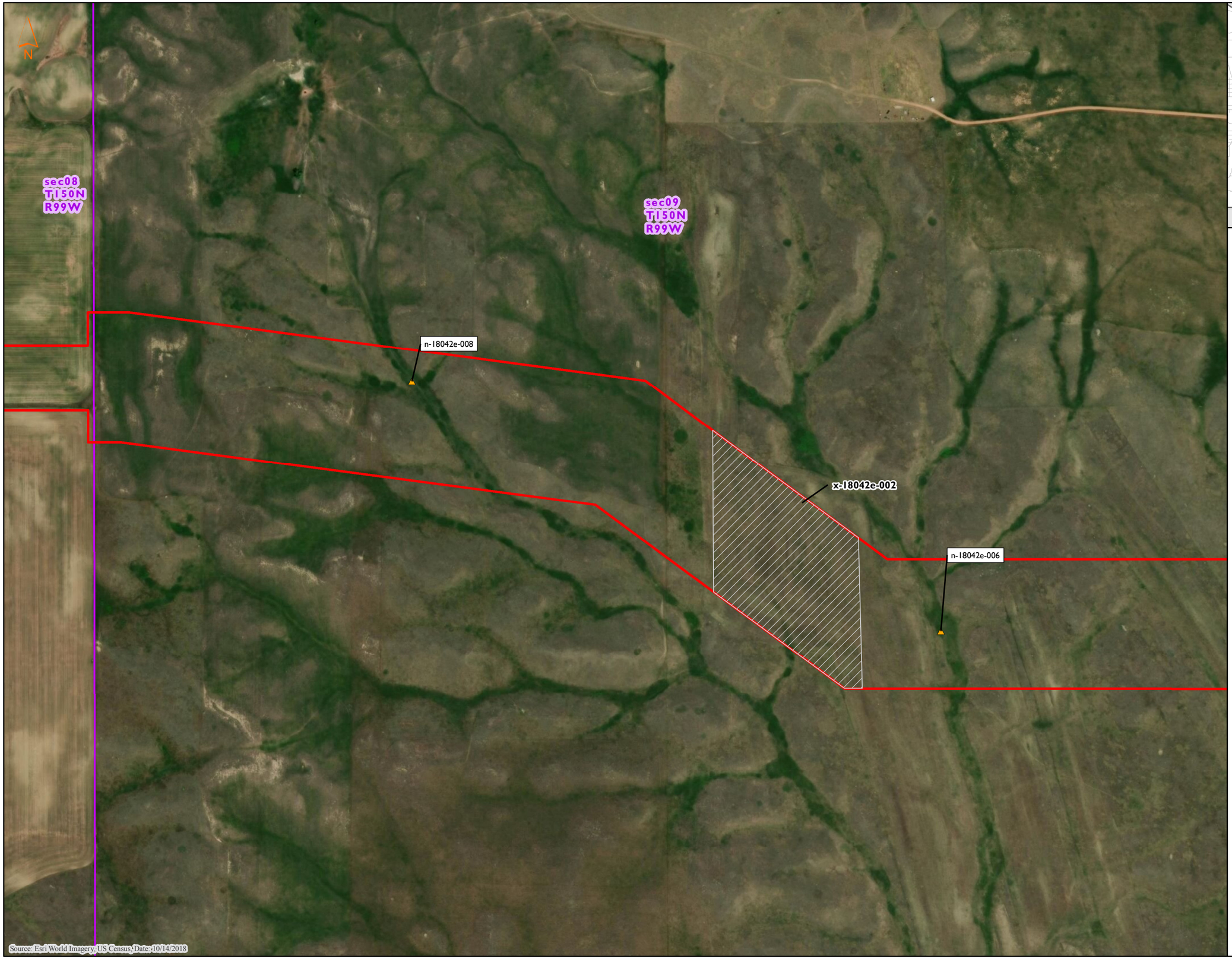
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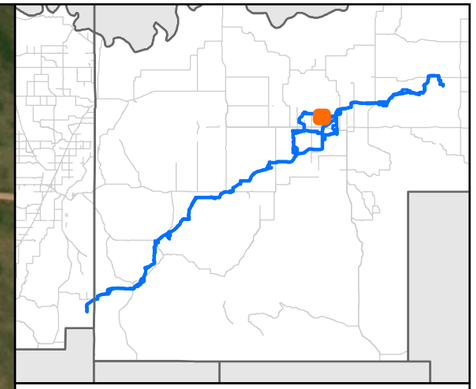
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 62 of 84

- Non-NHD/NWI Point
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0 400 800
Feet





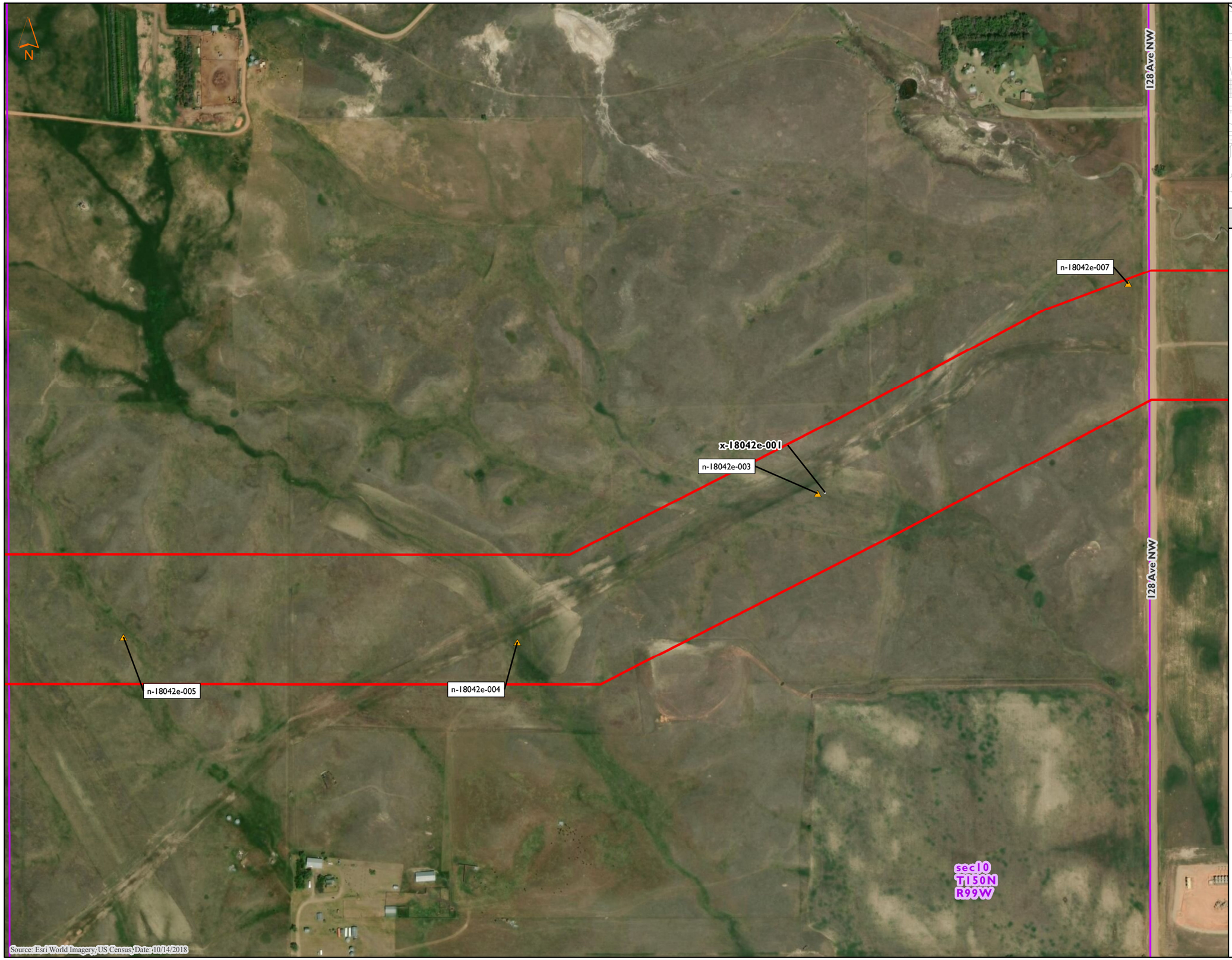
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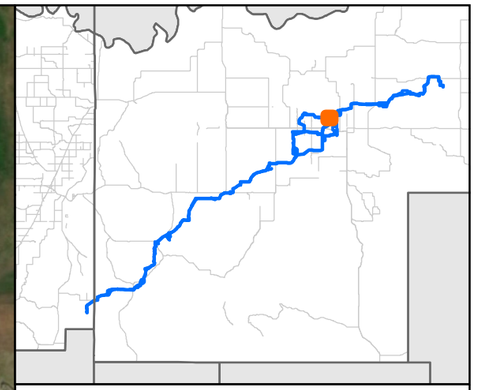
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 63 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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0 400 800
Feet





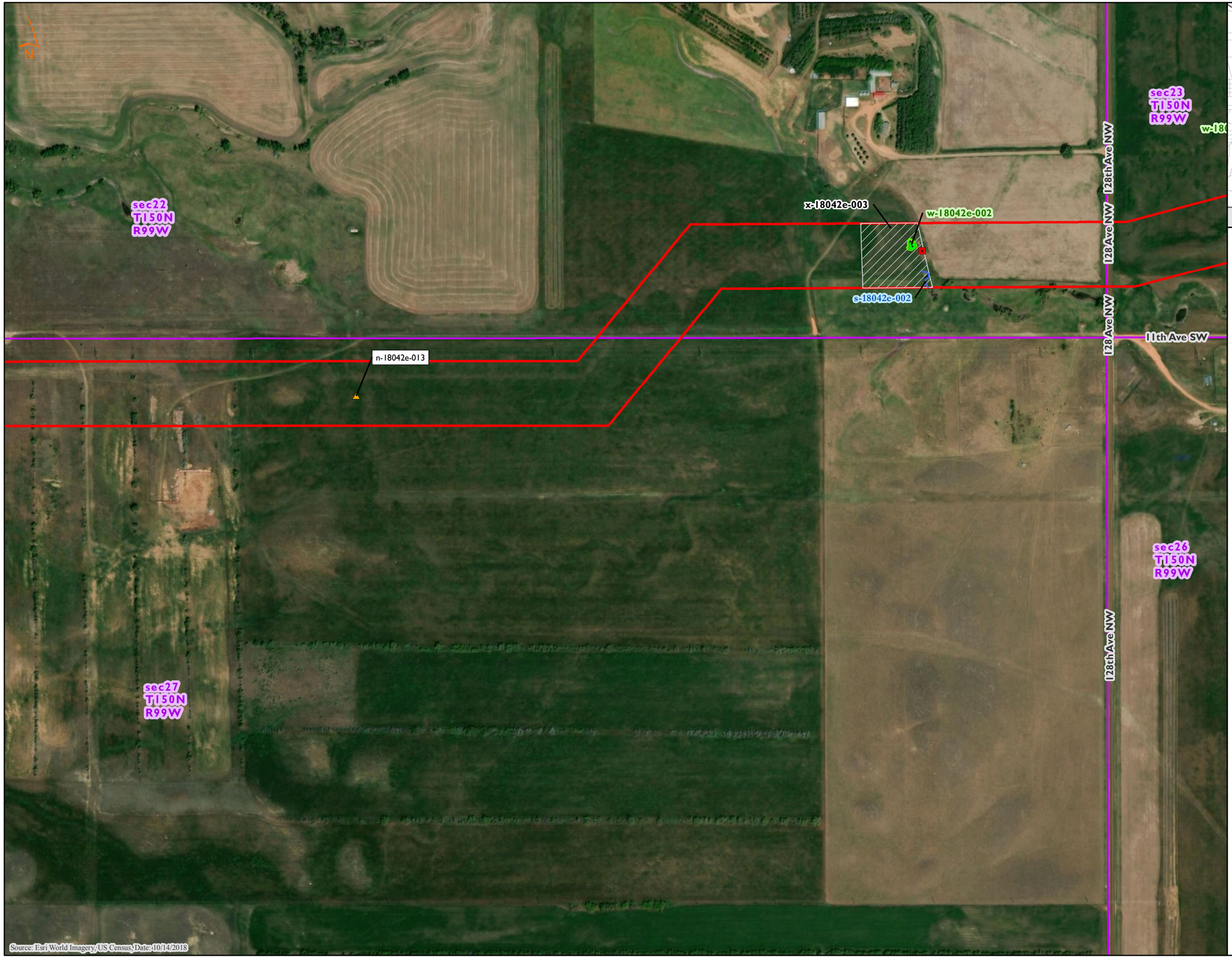
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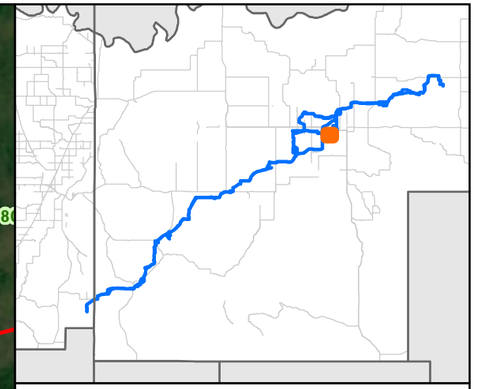
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 64 of 84

- Non-NHD/NWI Point
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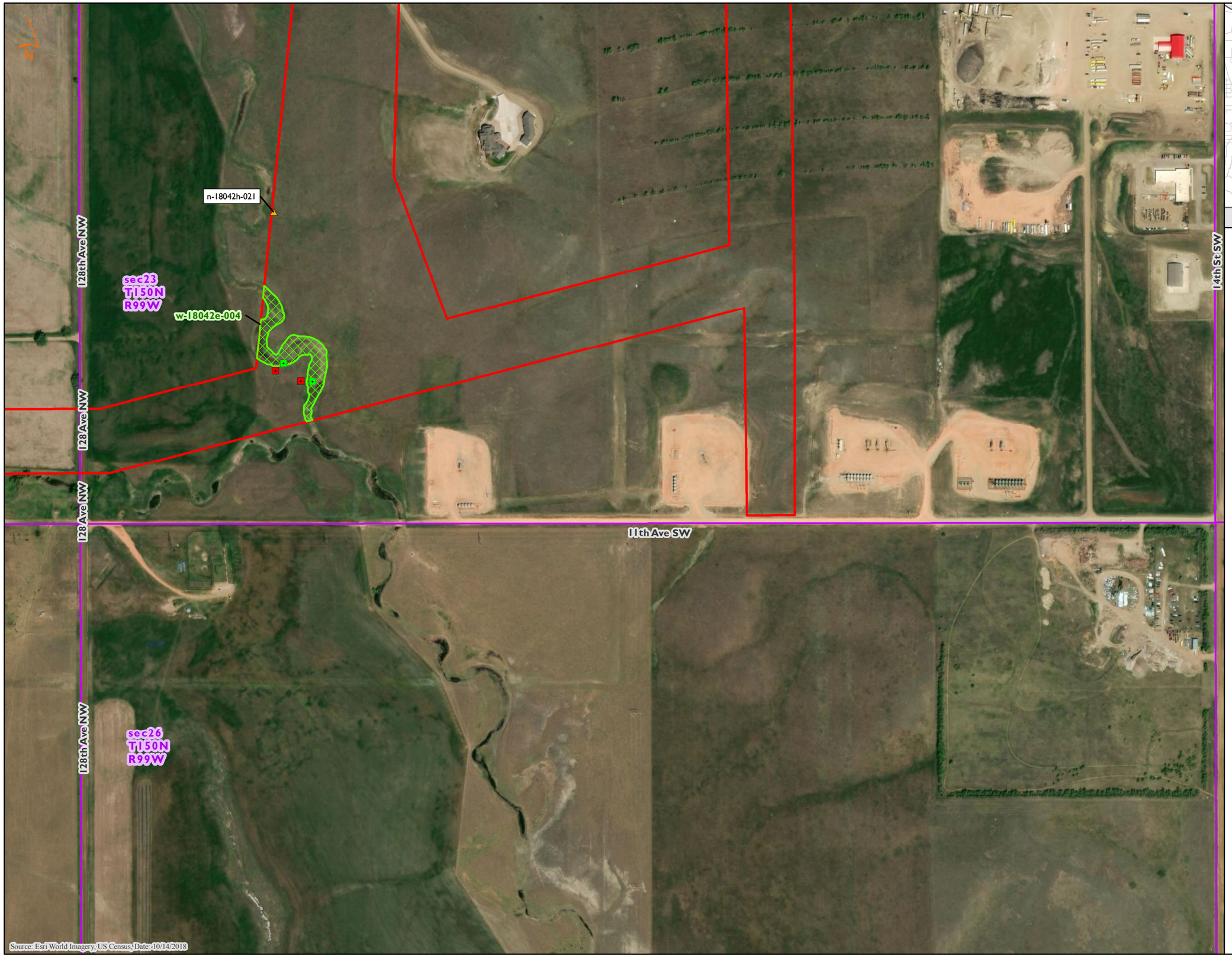
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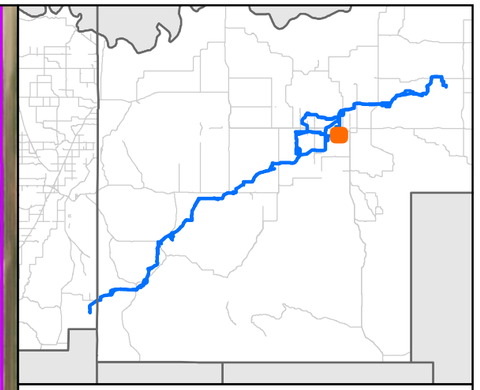
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 65 of 84

- Non-NHD/NWI Point
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- Environmental Survey Area

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Feet





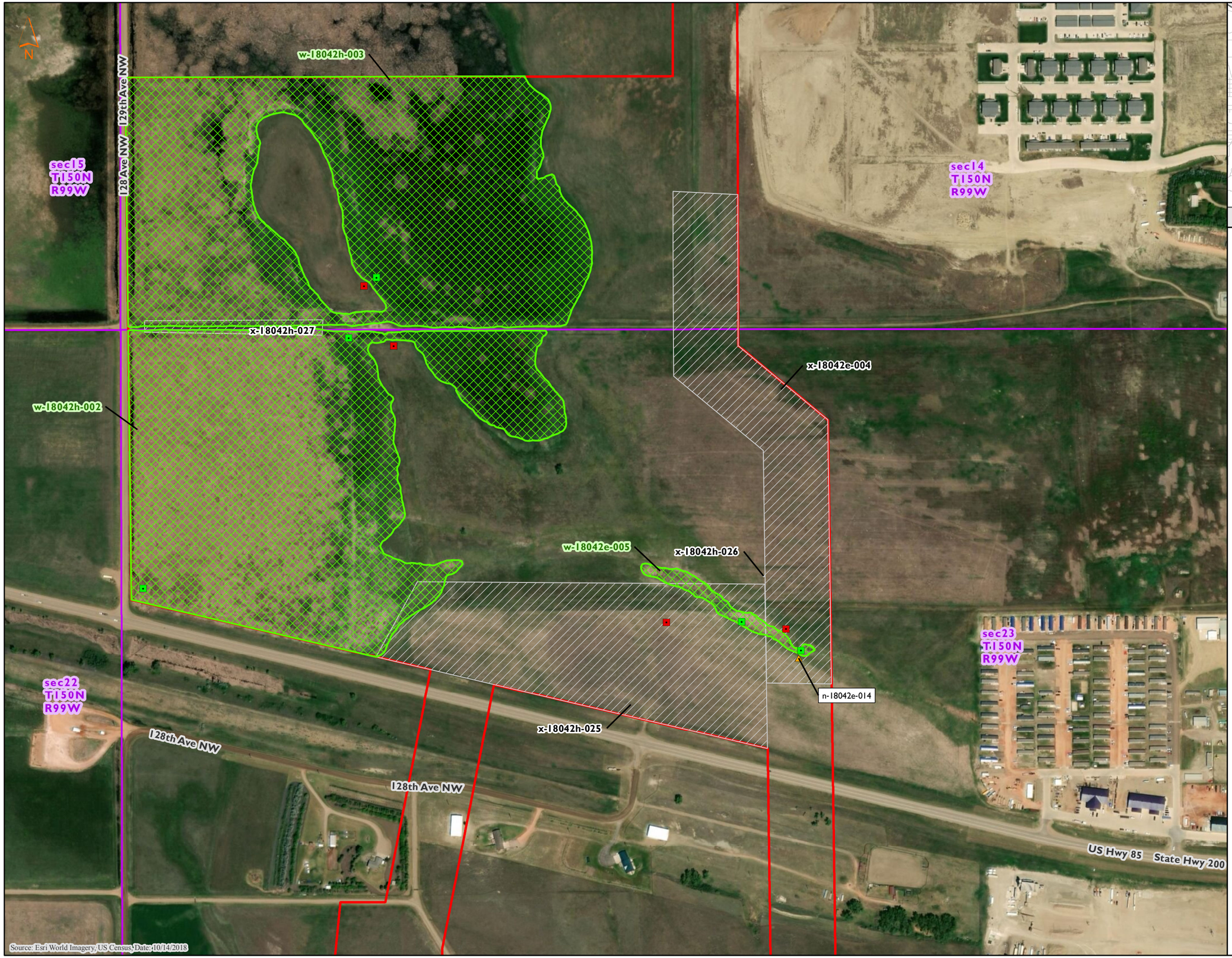
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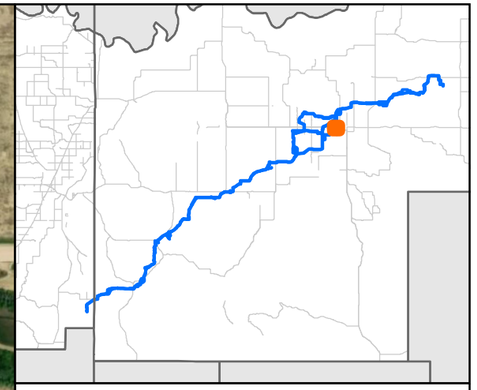
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 66 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet





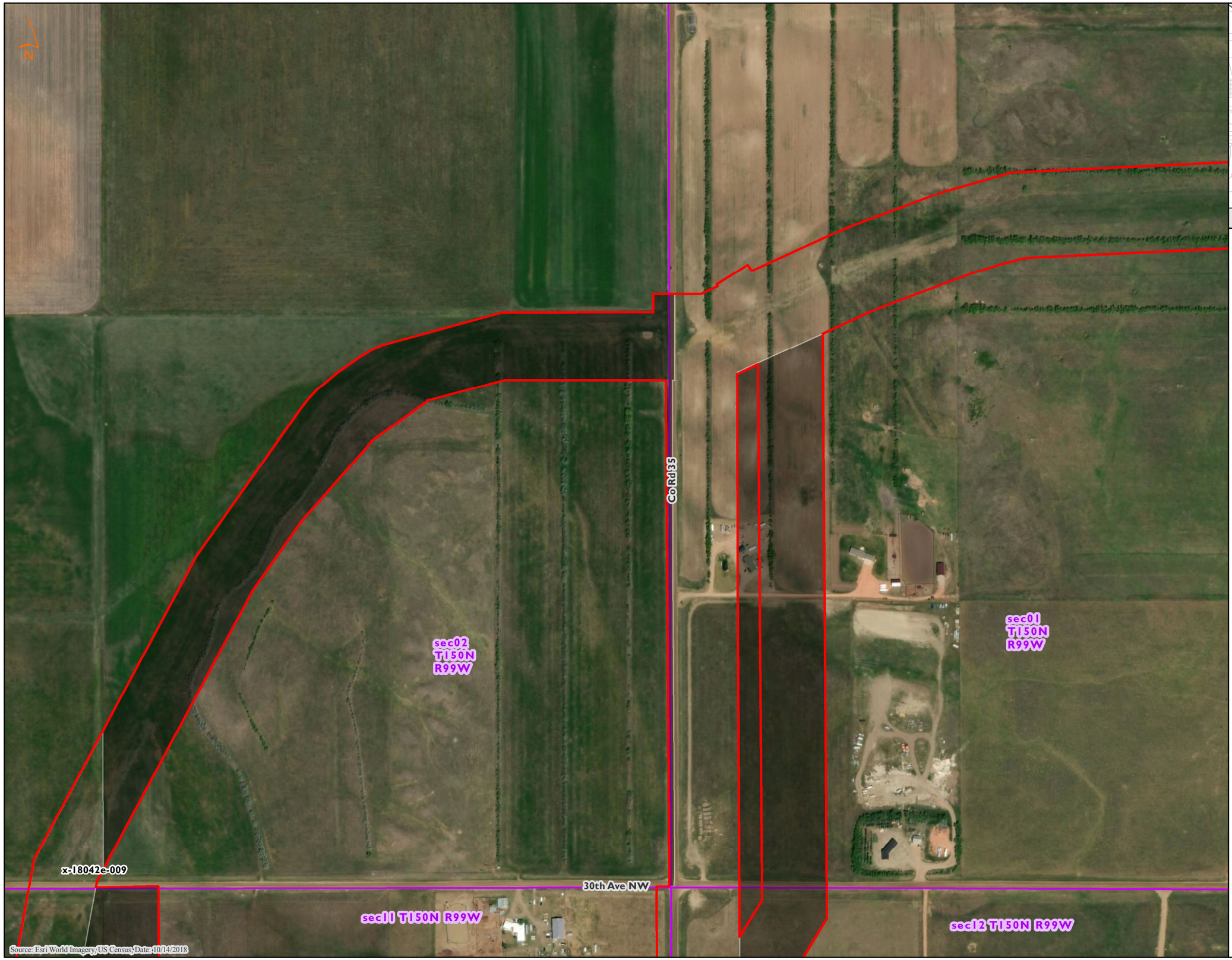
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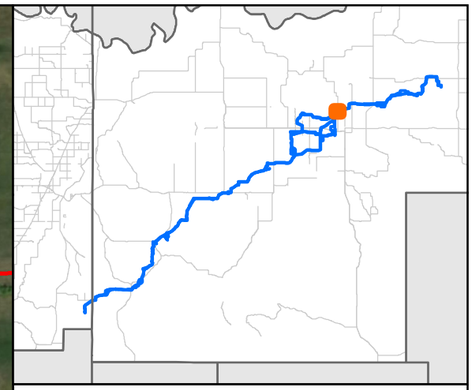
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 67 of 84

- Non-NHD/NWI Point
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- PLSS Section
- Environmental Survey Area

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Feet





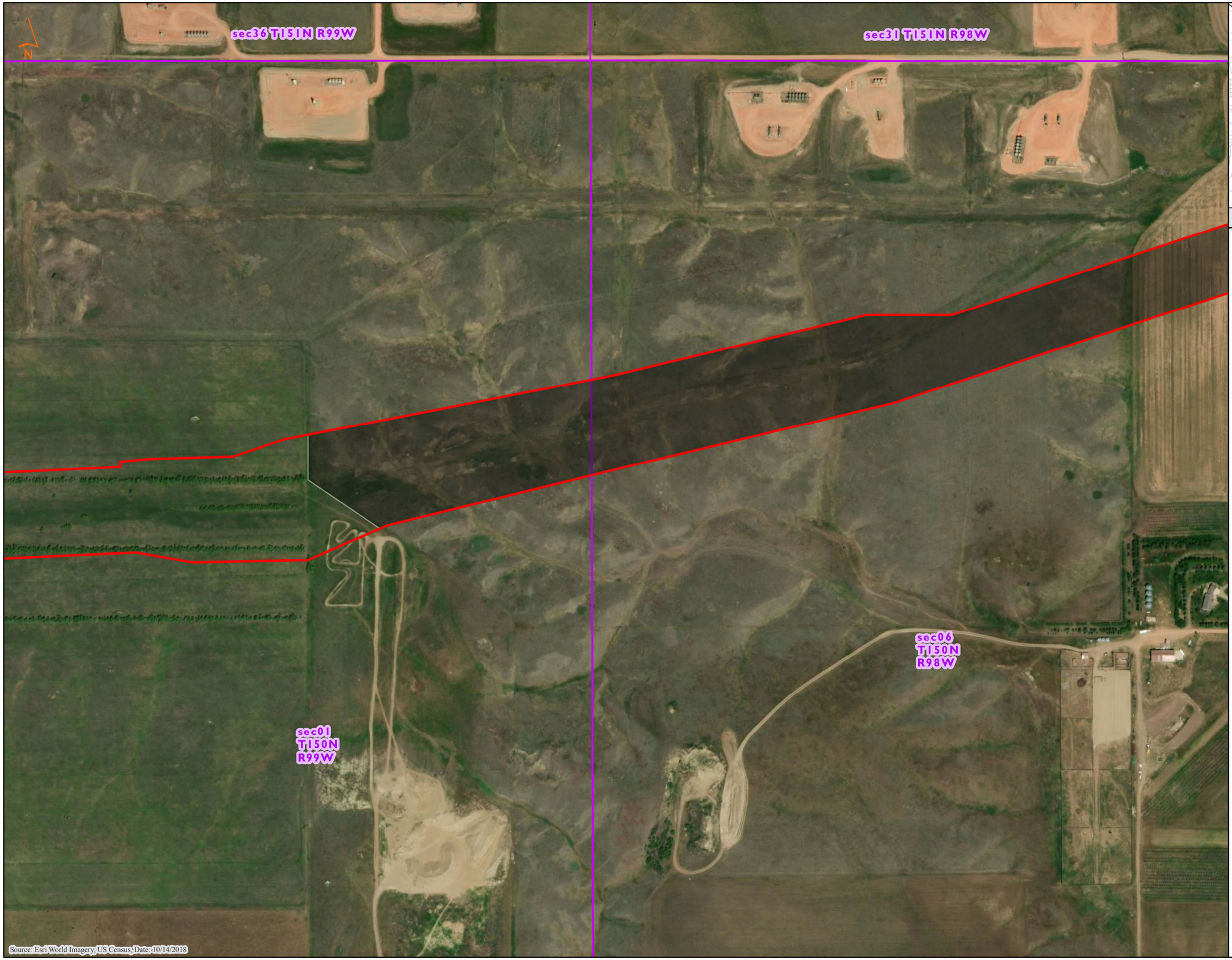
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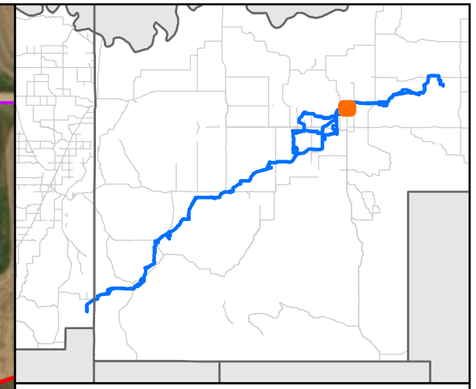
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 68 of 84

- Non-NHD/NWI Point
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- PLSS Section
- Environmental Survey Area

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Feet





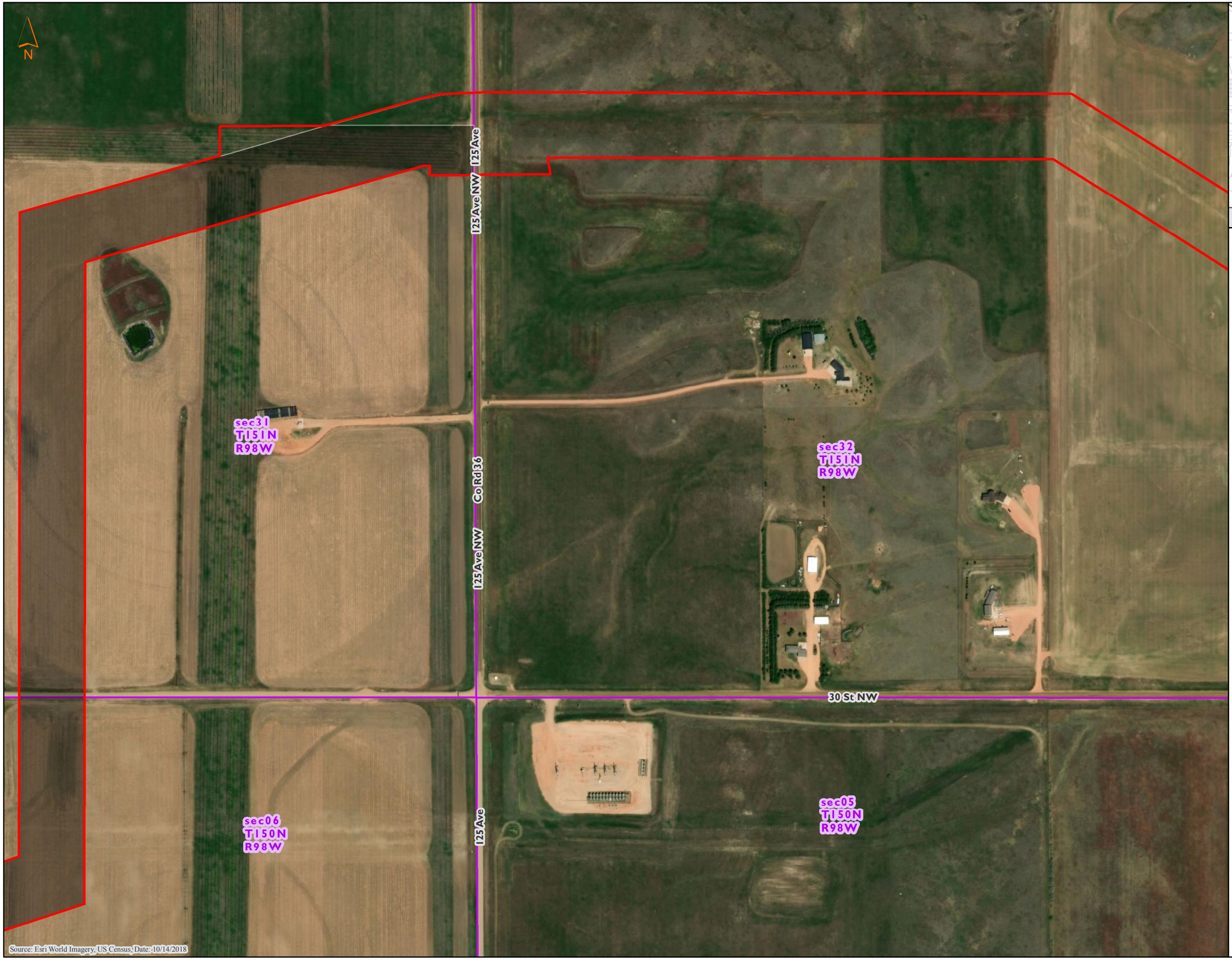
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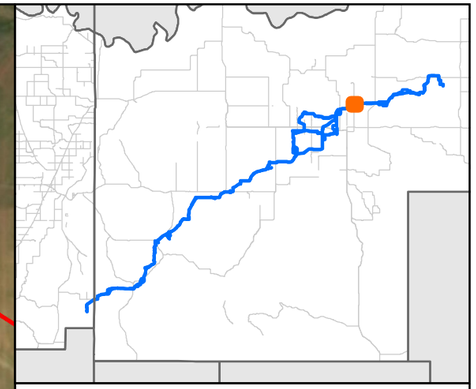
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 69 of 84

- Non-NHD/NWI Point
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Feet





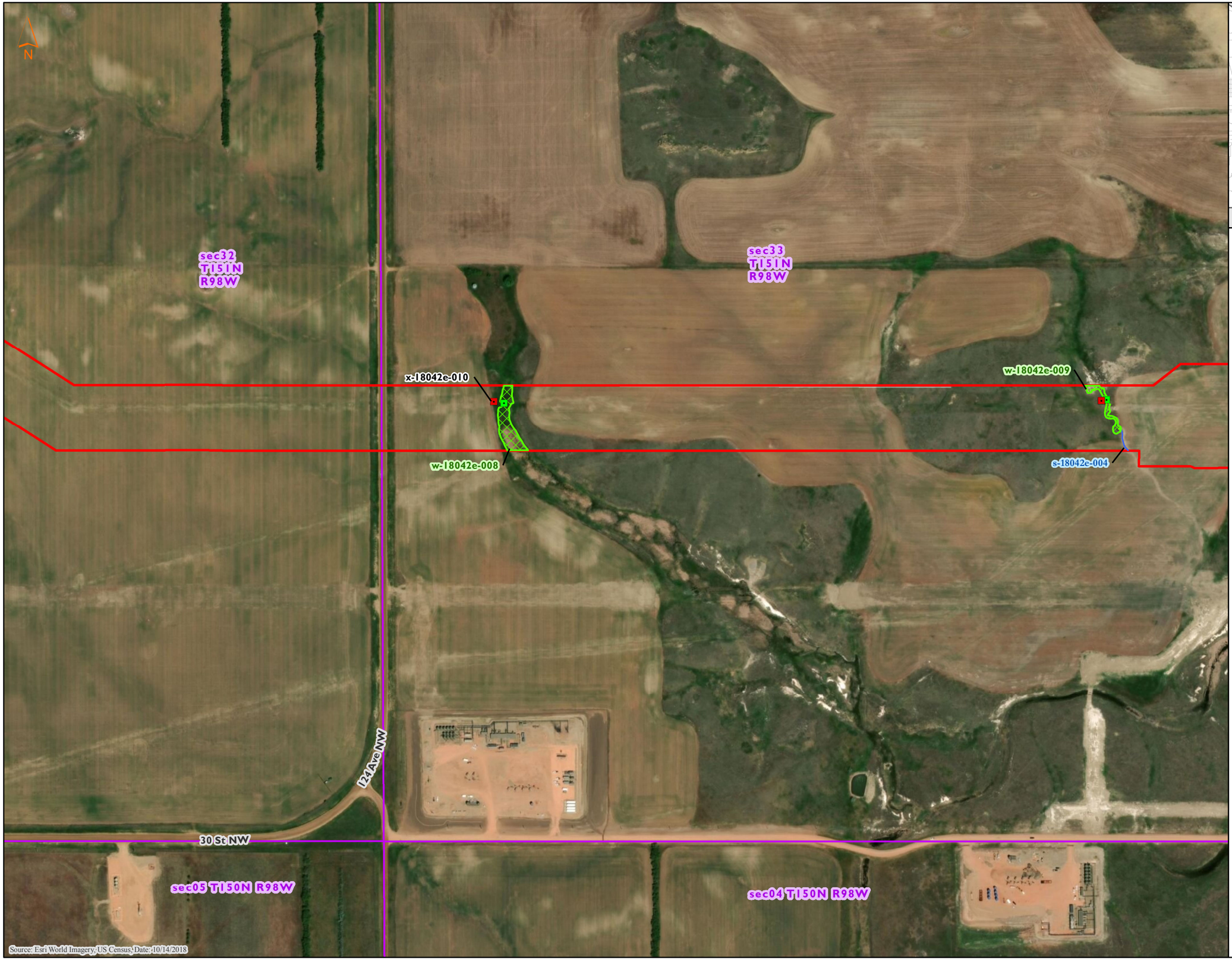
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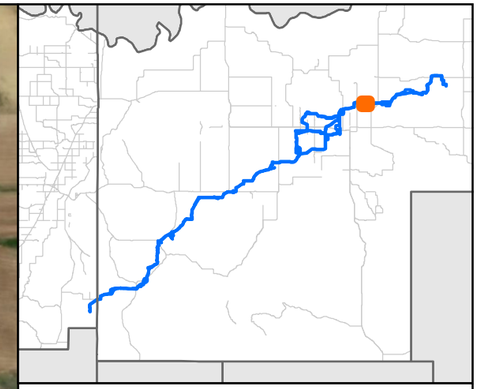
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 70 of 84

- Non-NHD/NWI Point
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- Environmental Survey Area

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Feet





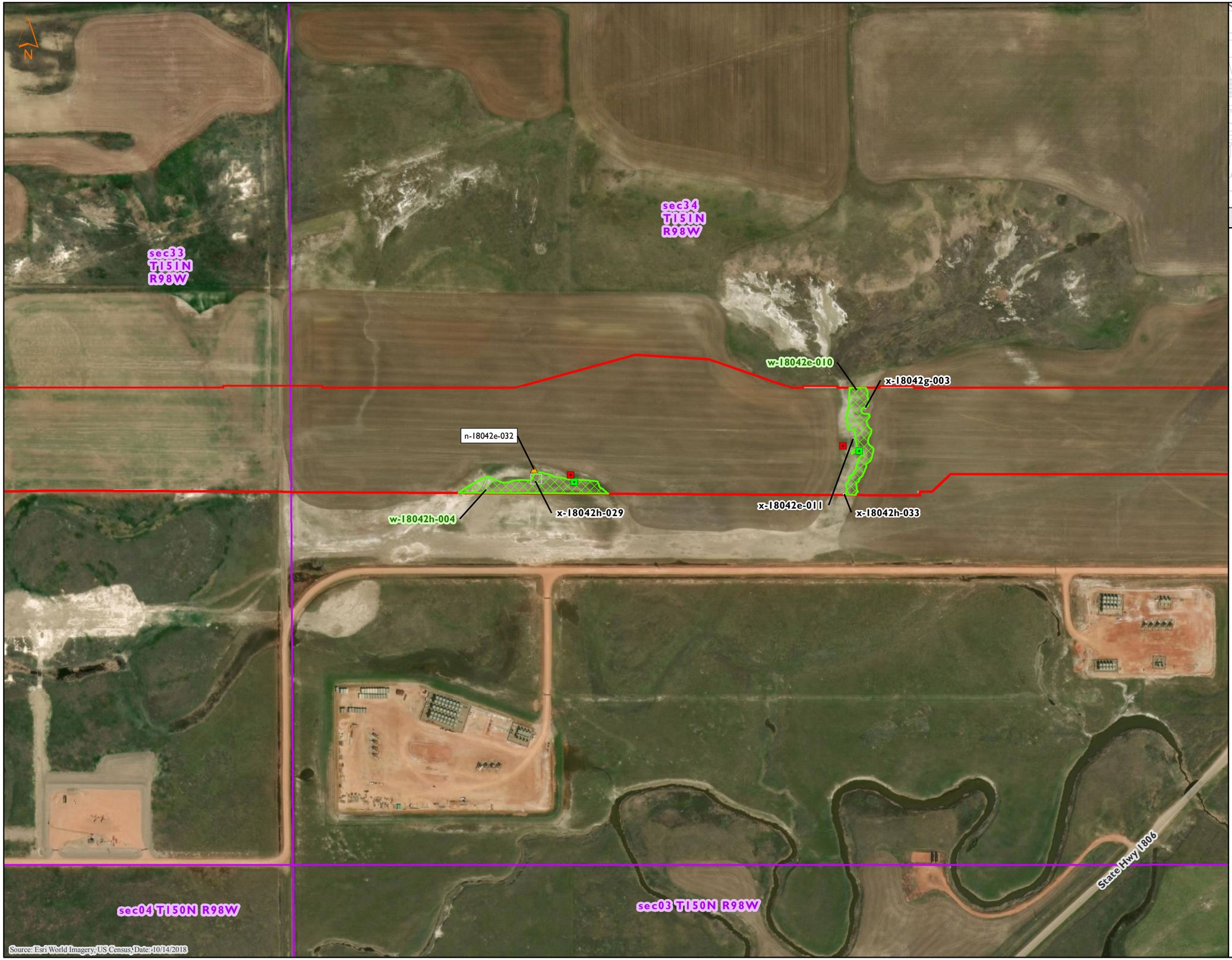
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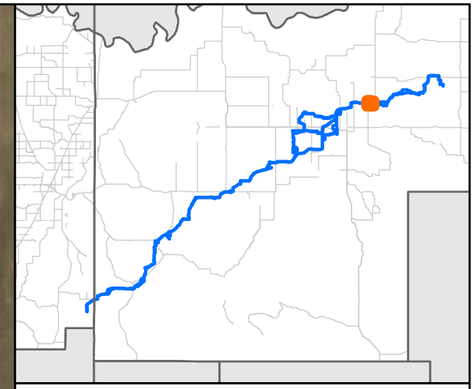
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 71 of 84

- Non-NHD/NWI Point
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0 400 800
Feet





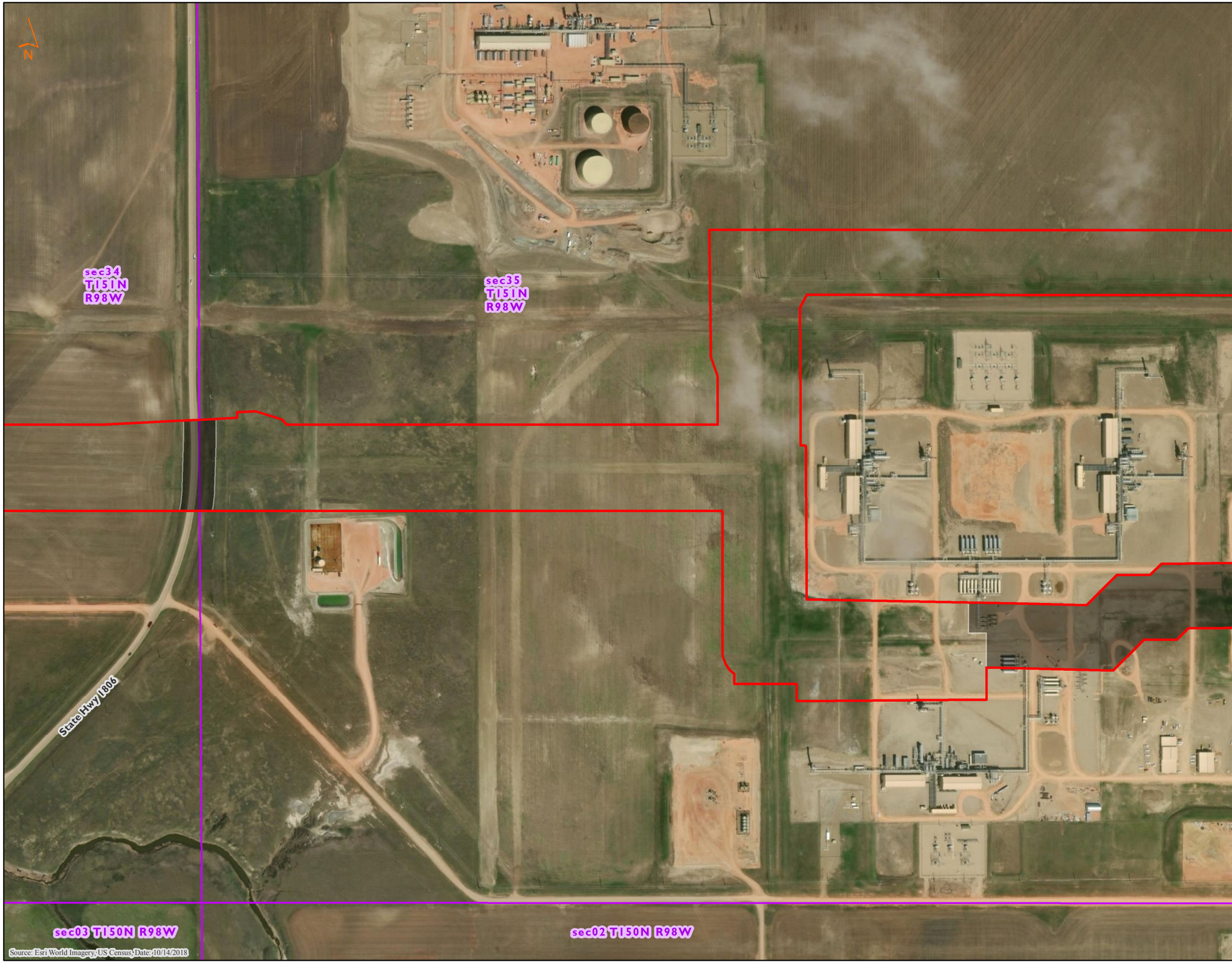
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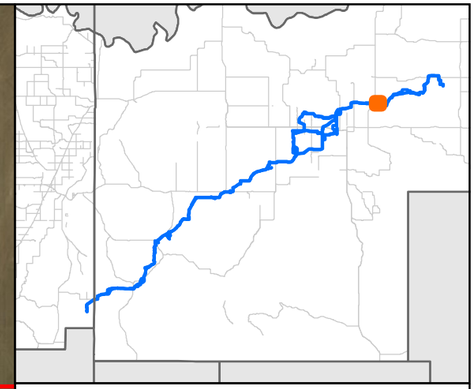
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 72 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
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0 400 800
Feet





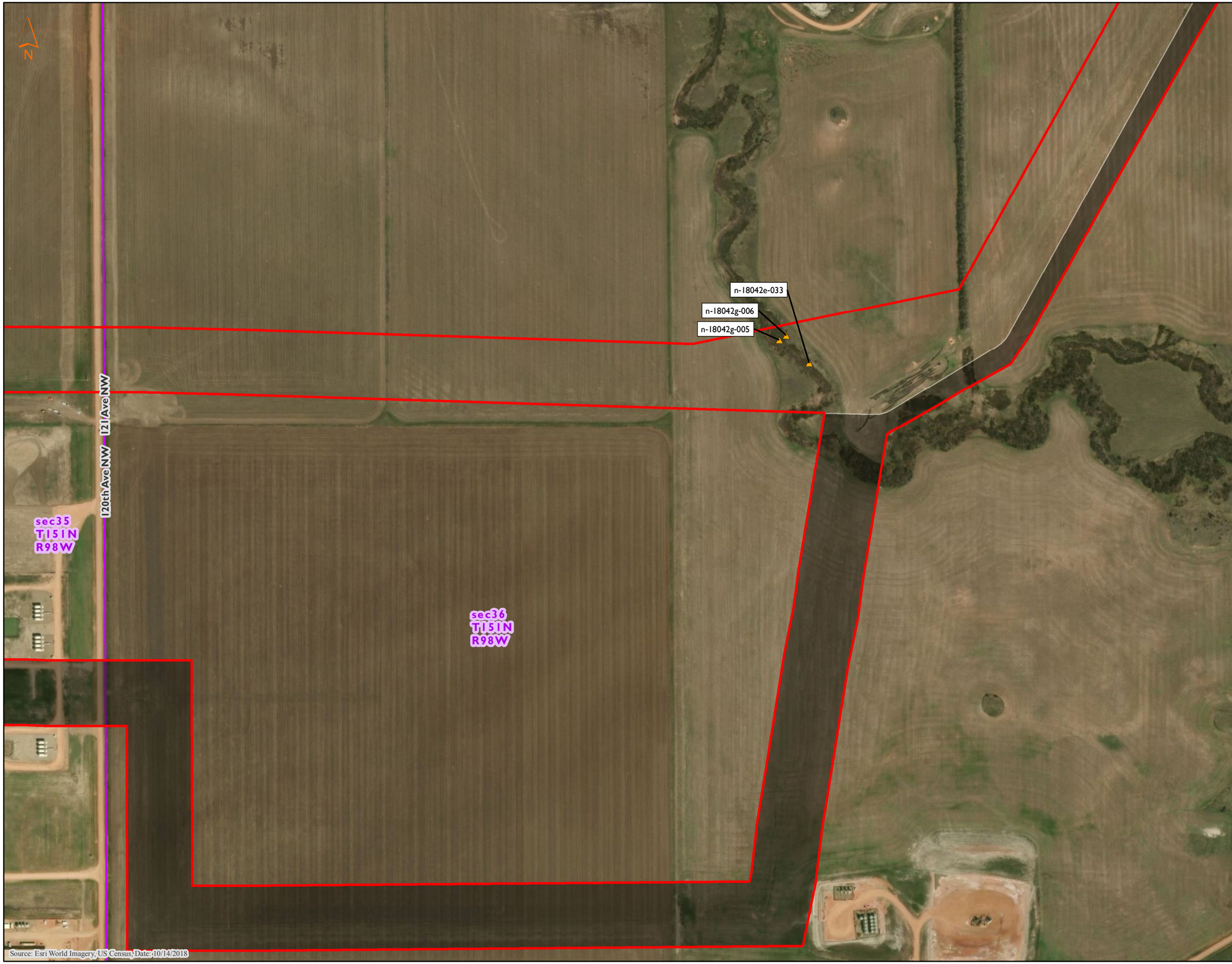
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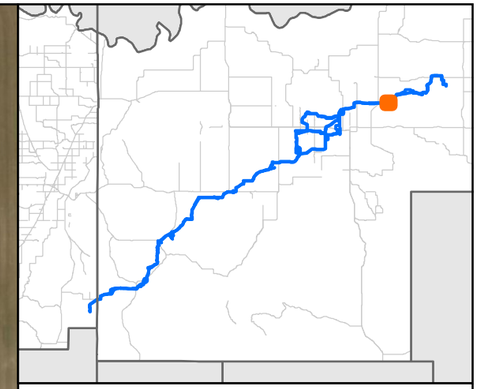
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 73 of 84

- Non-NHD/NWI Point
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Feet





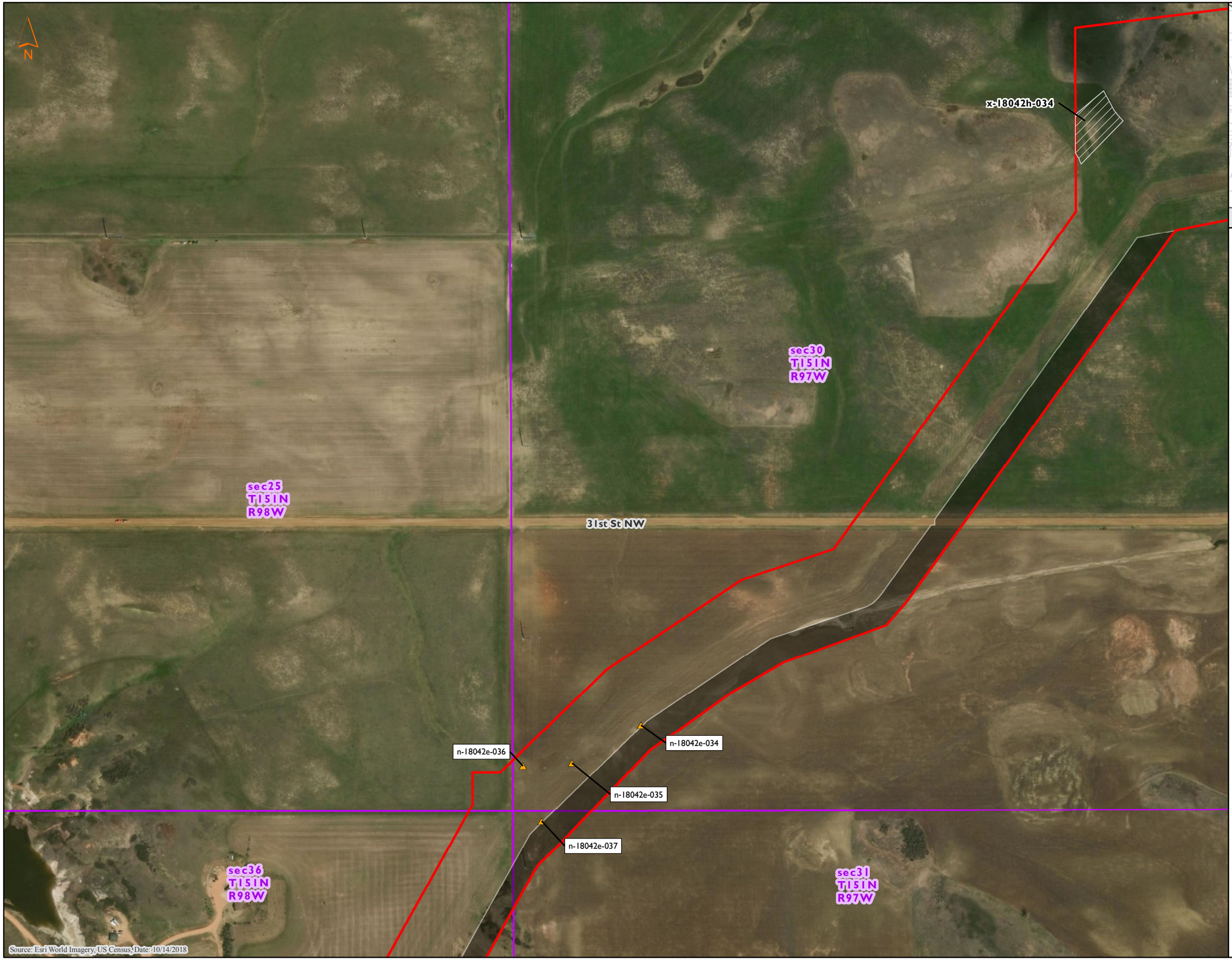
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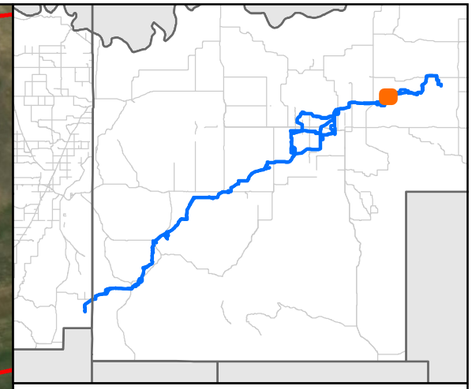
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 74 of 84

- Non-NHD/NWI Point
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Feet





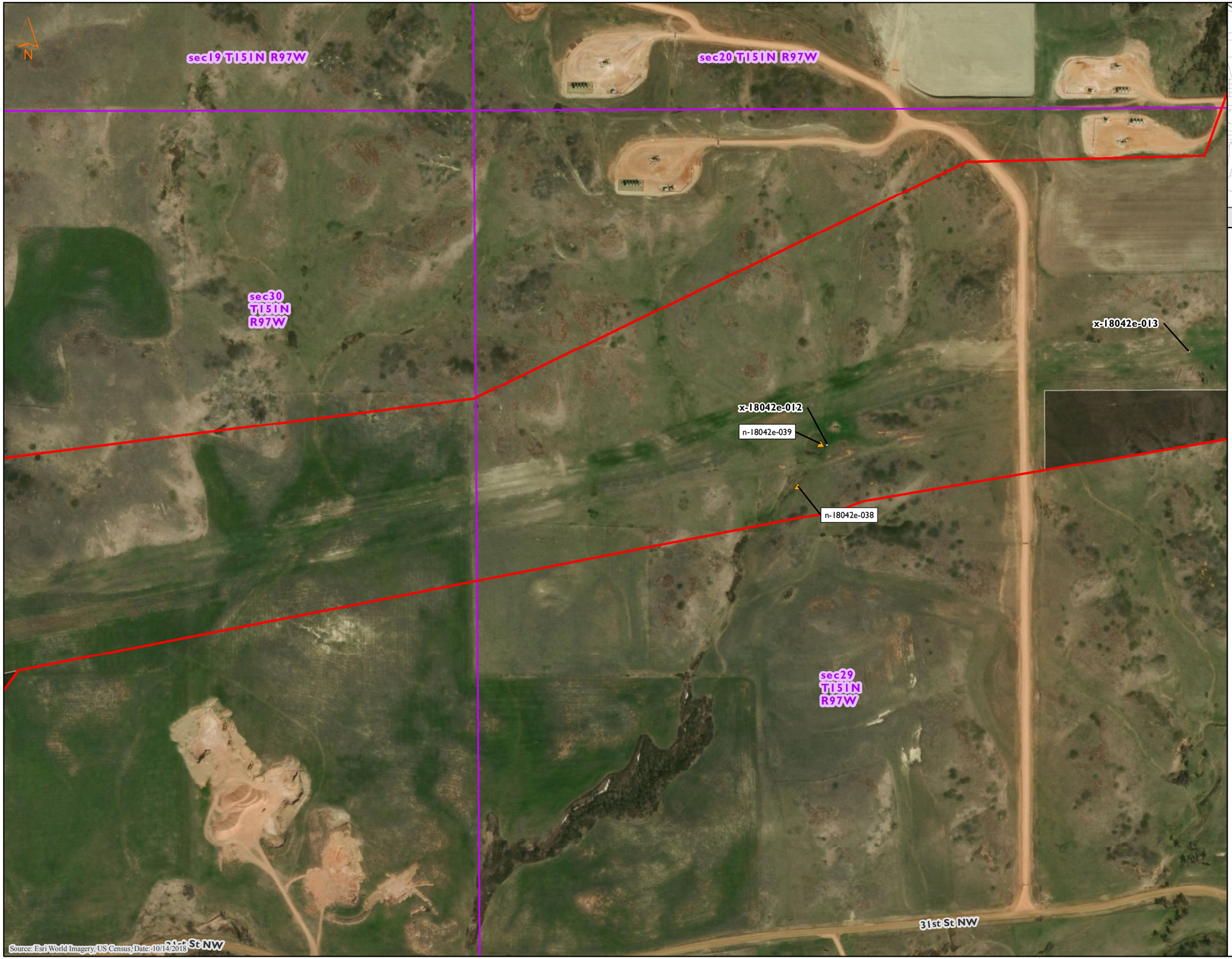
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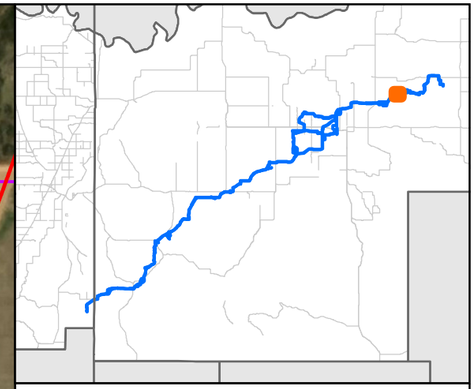
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 75 of 84

- Non-NHD/NWI Point
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Feet





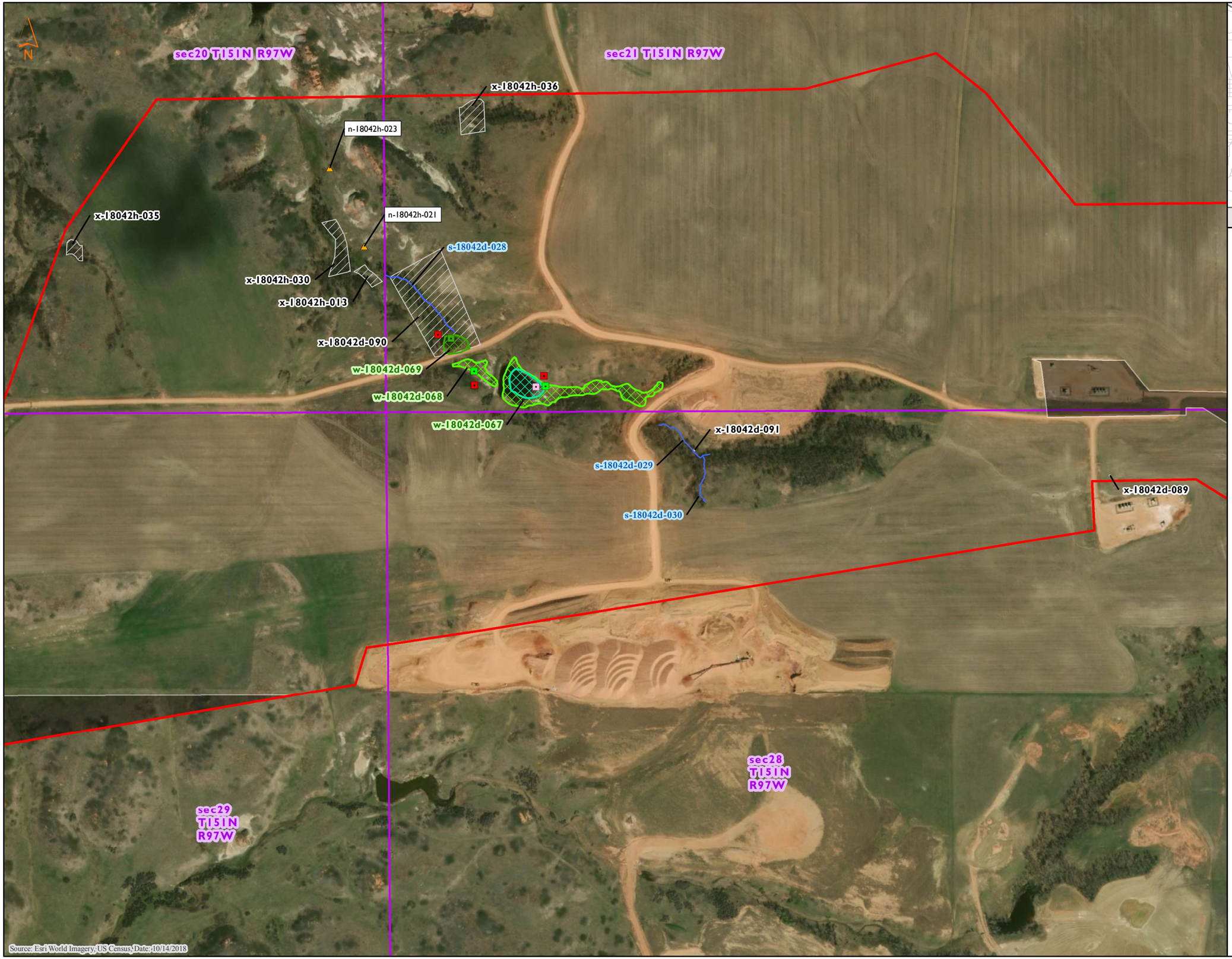
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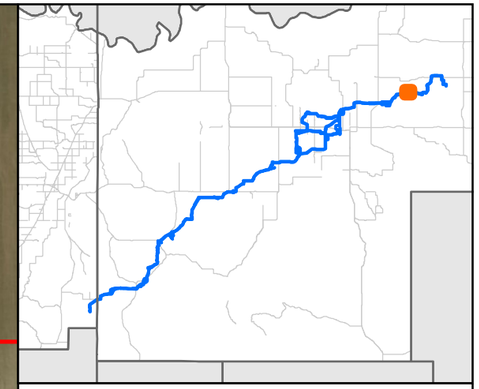
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 76 of 84

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Feet





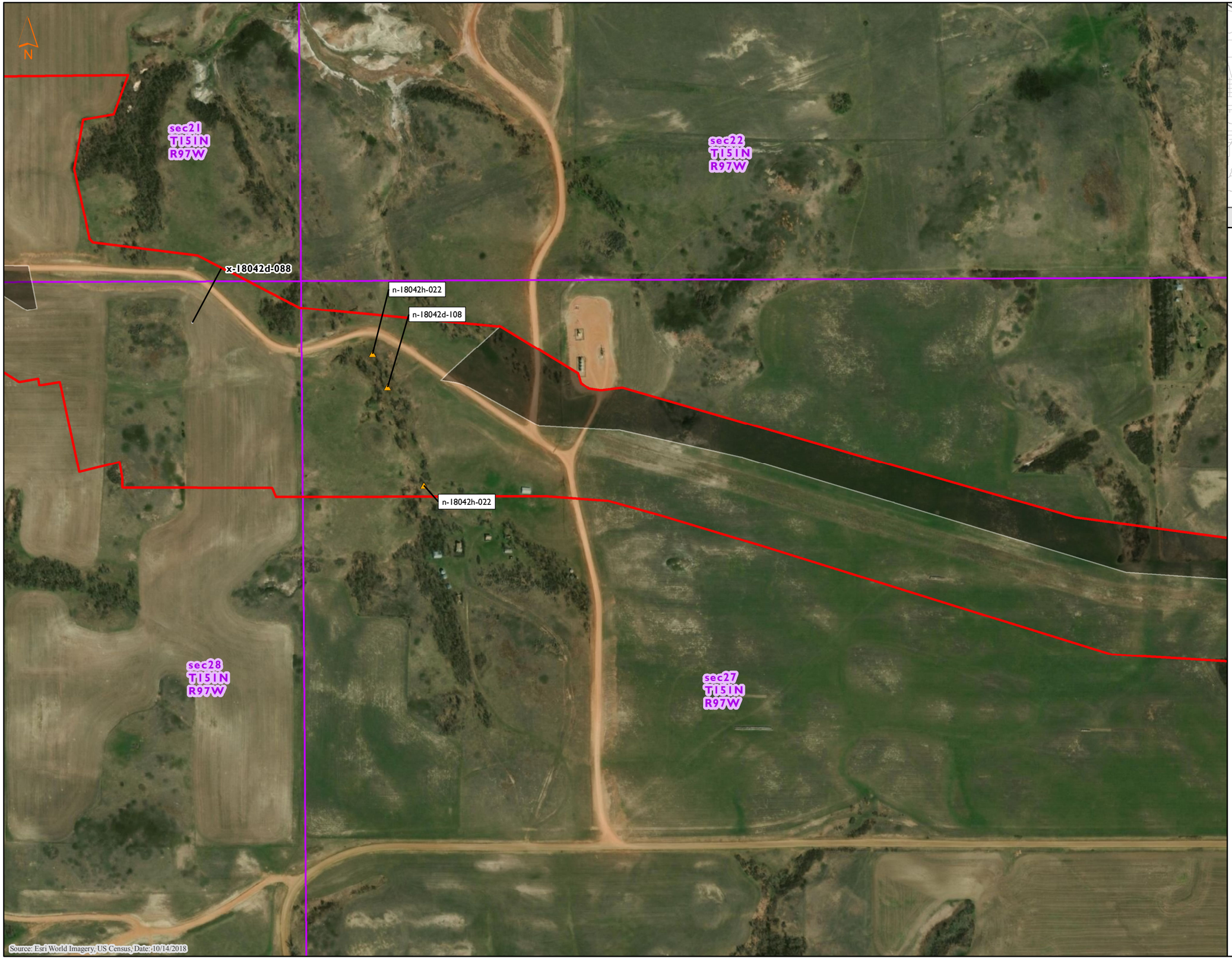
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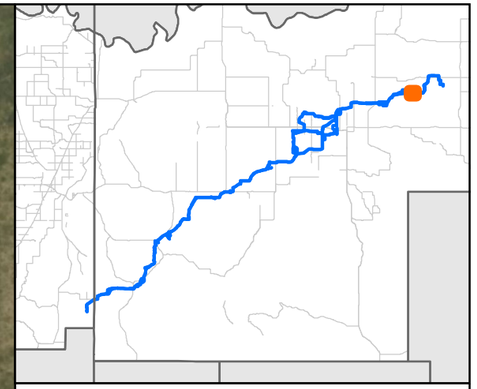
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 77 of 84

- Non-NHD/NWI Point
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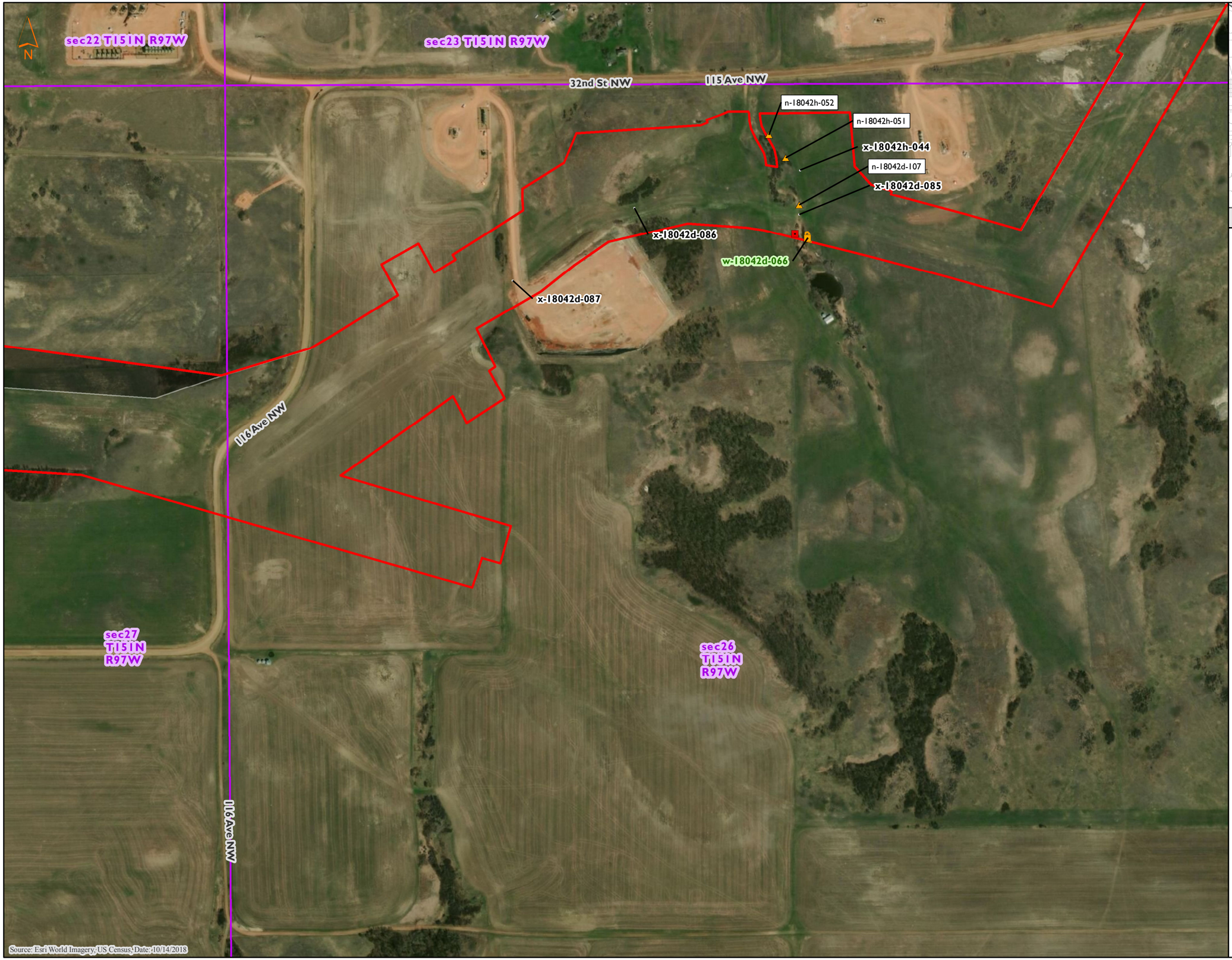
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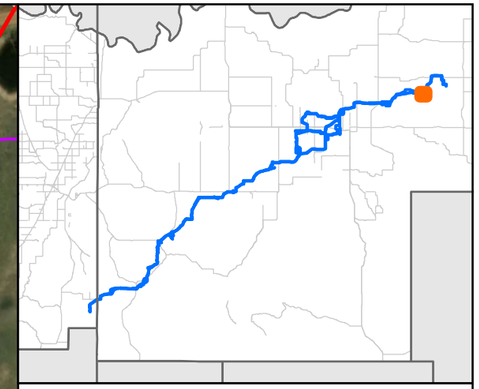
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 78 of 84

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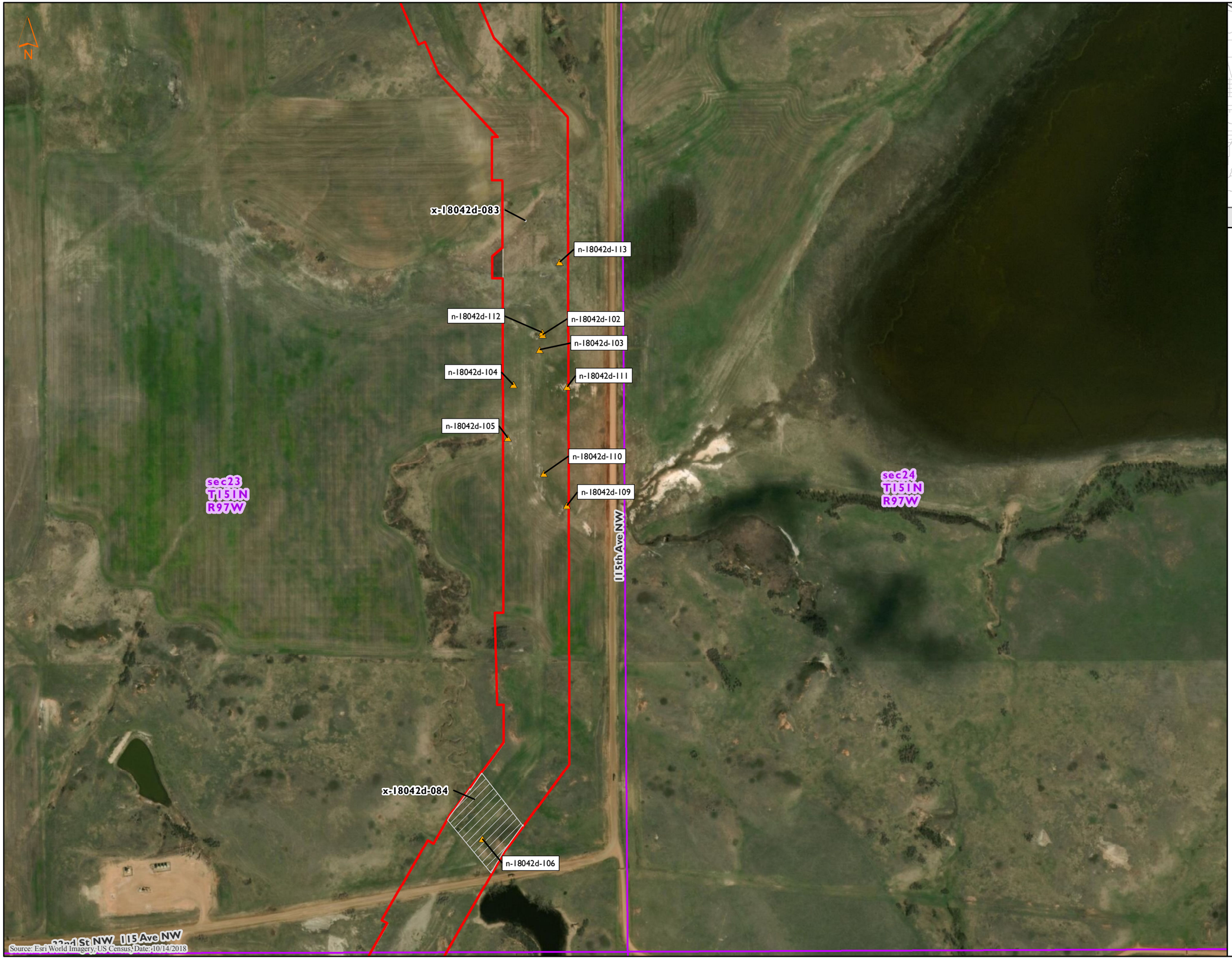
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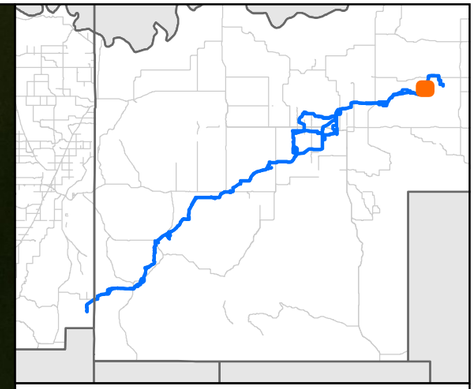
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 79 of 84

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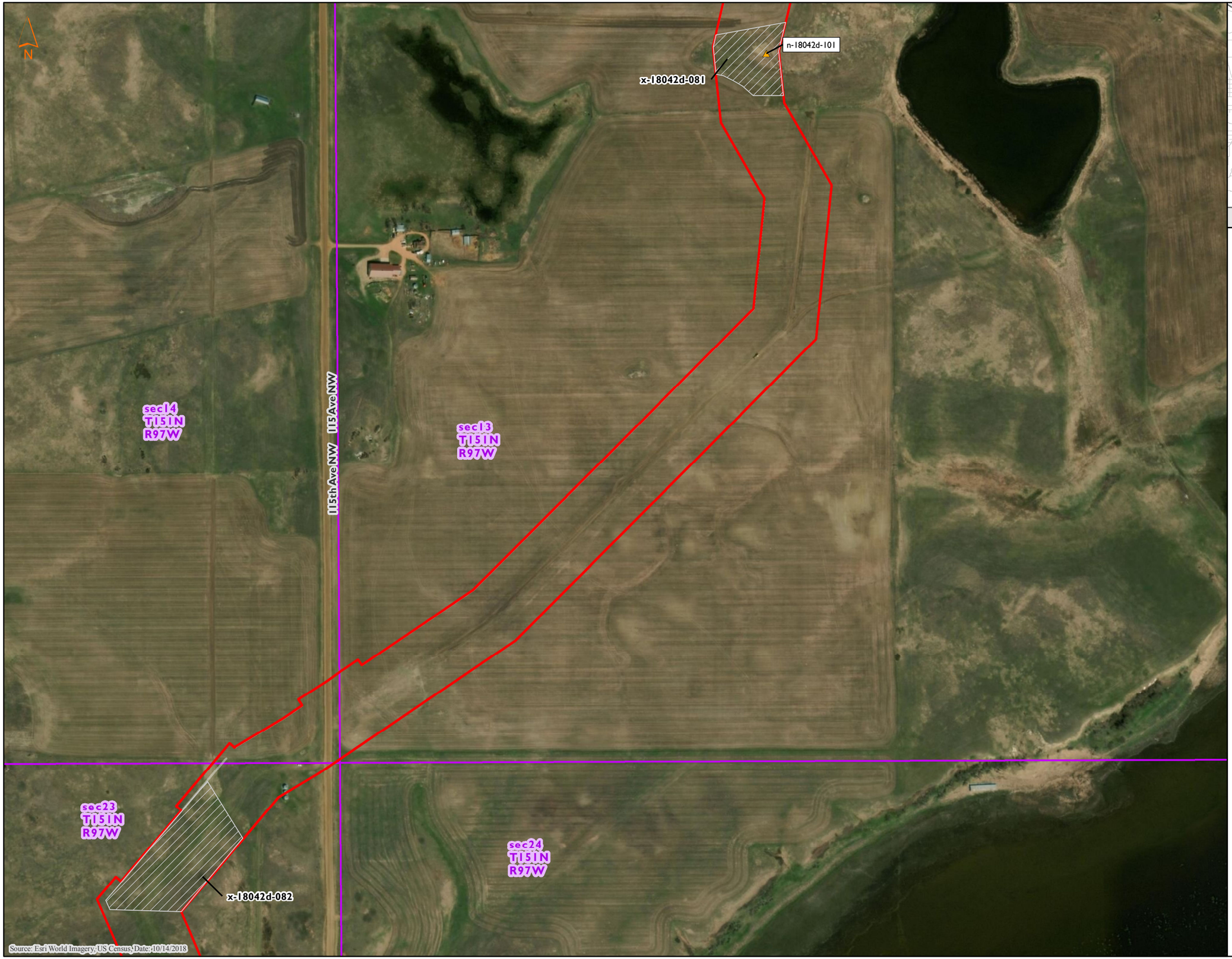
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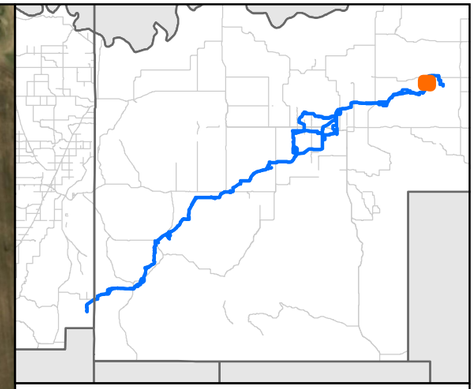
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 80 of 84

- Non-NHD/NWI Point
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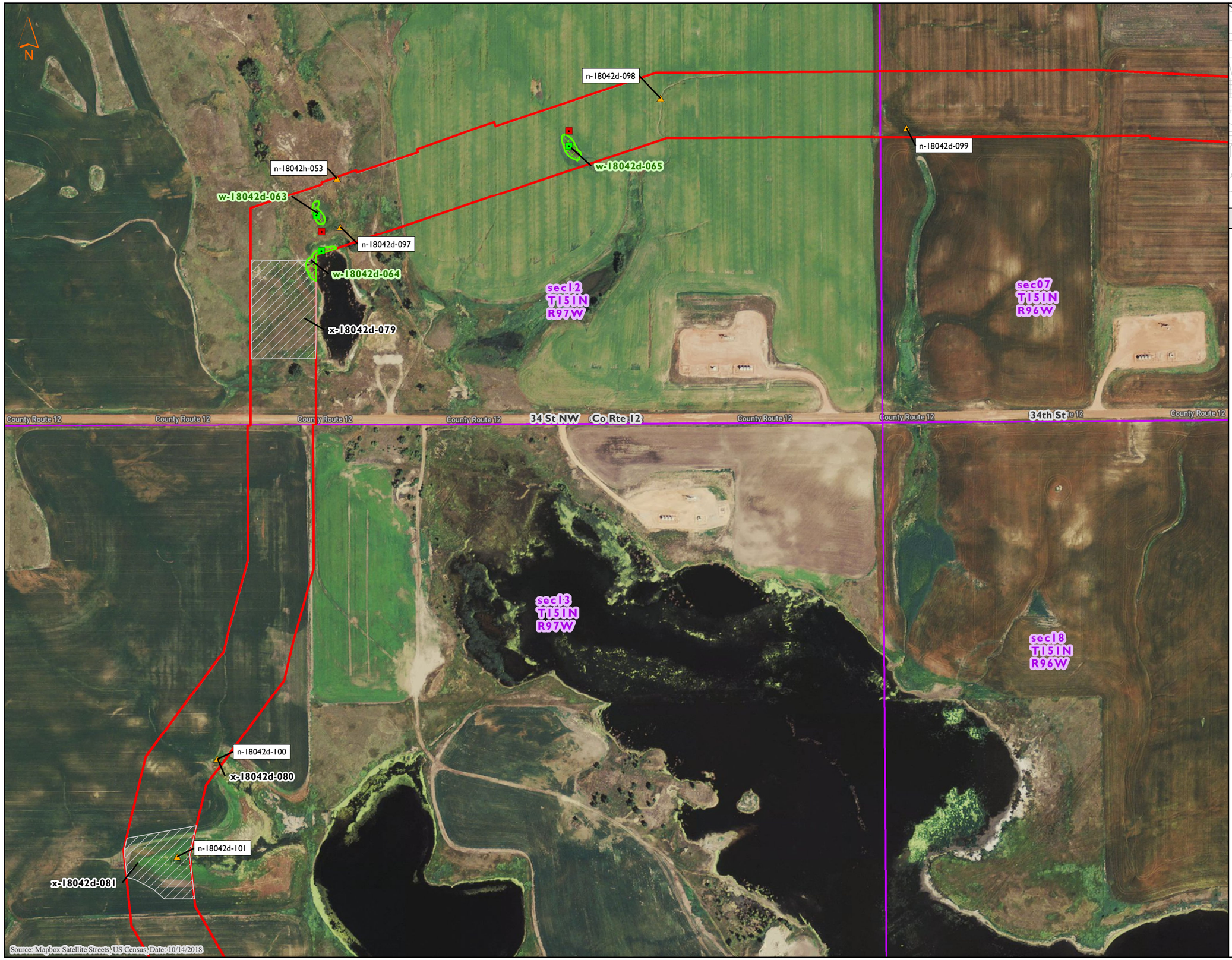
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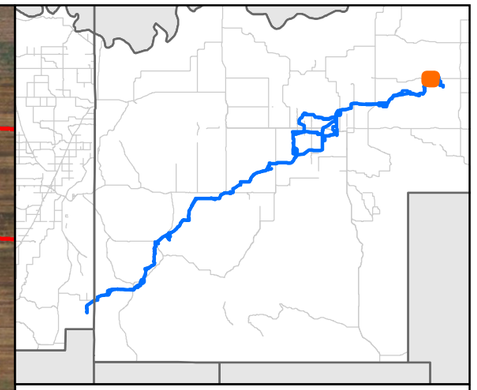
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 81 of 84

- Non-NHD/NWI Point
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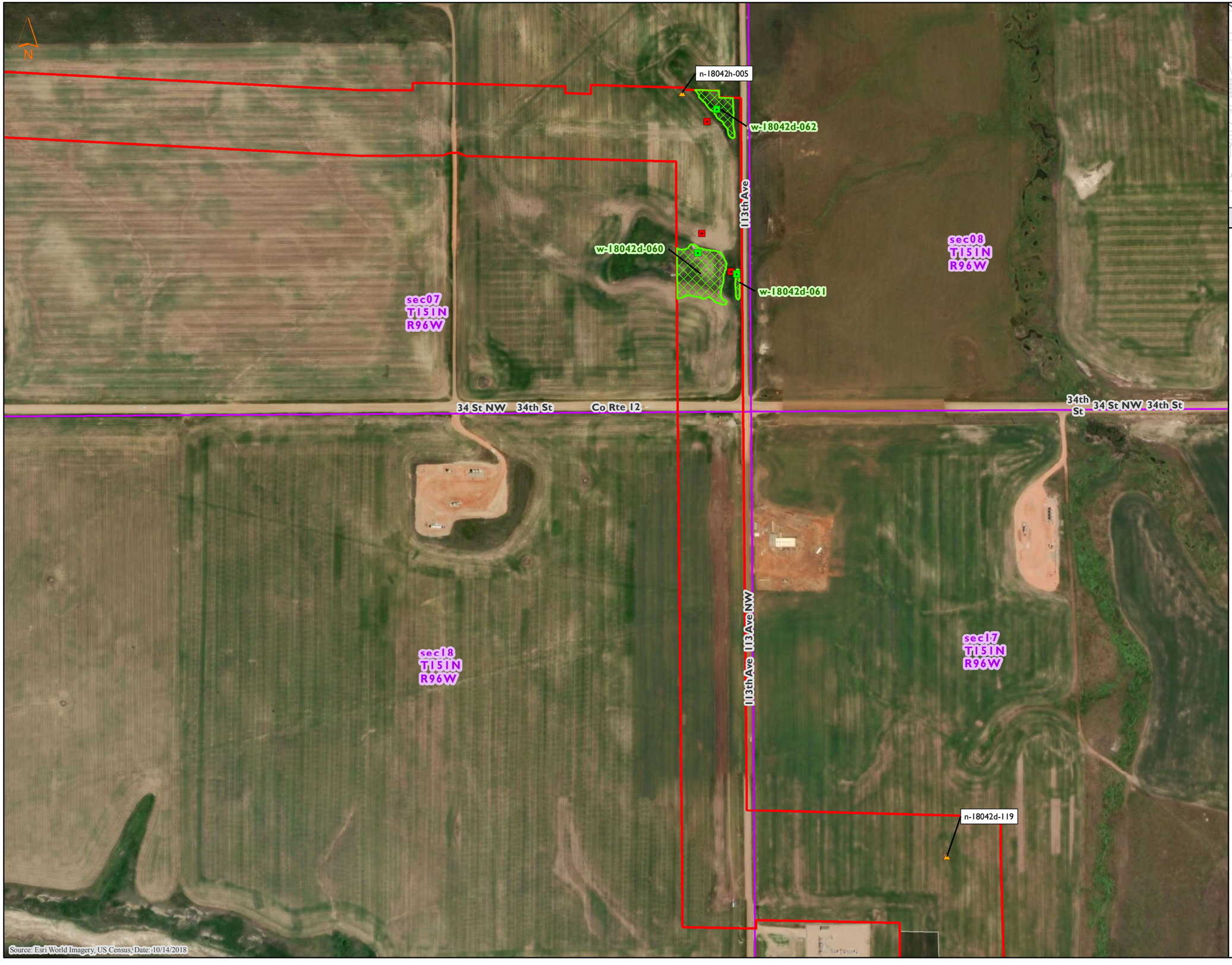
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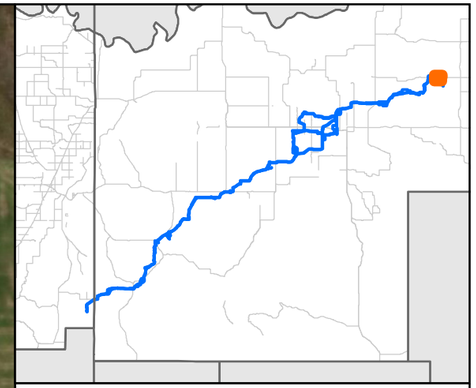
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 82 of 84

- Non-NHD/NWI Point
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- PSS Data Point
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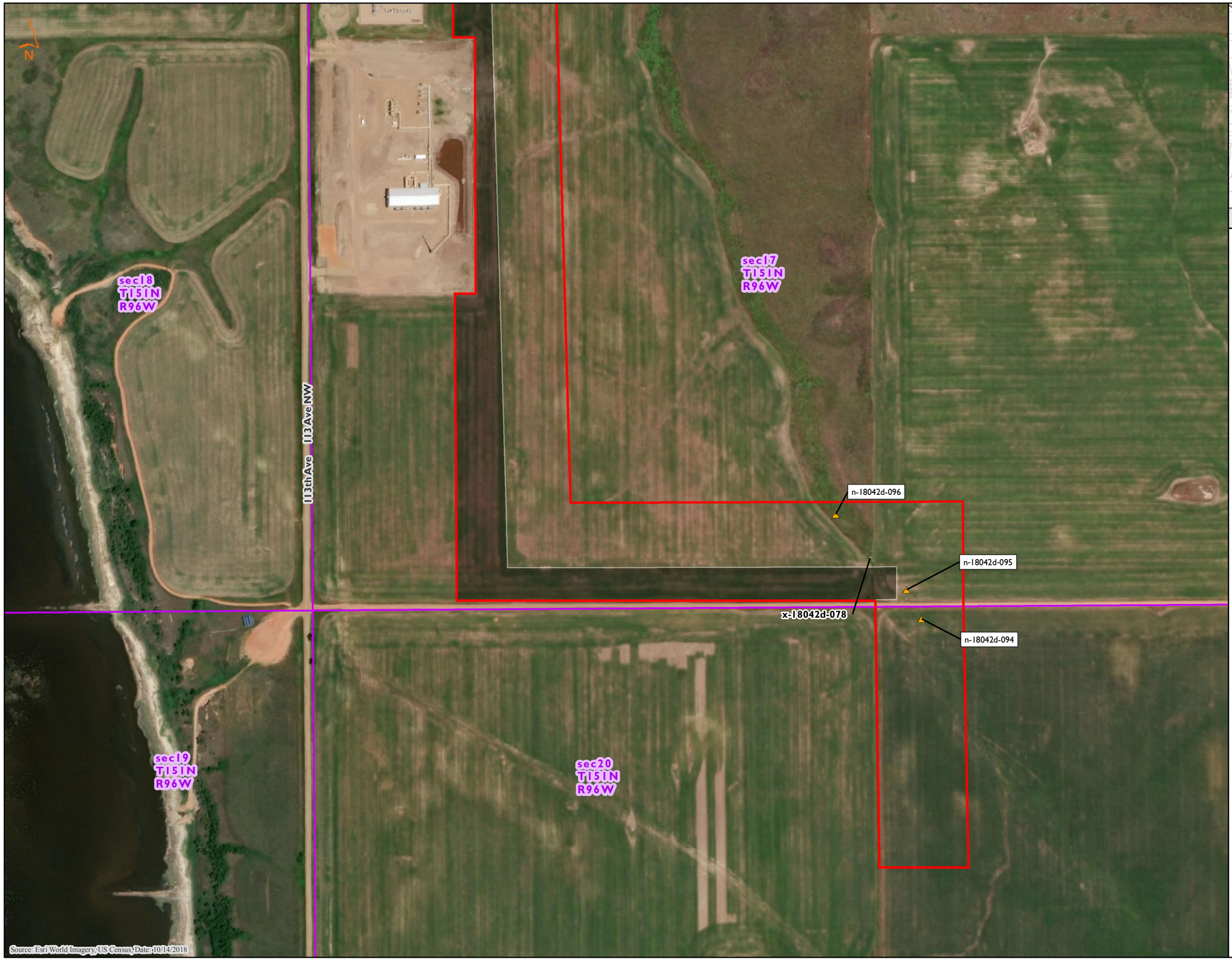
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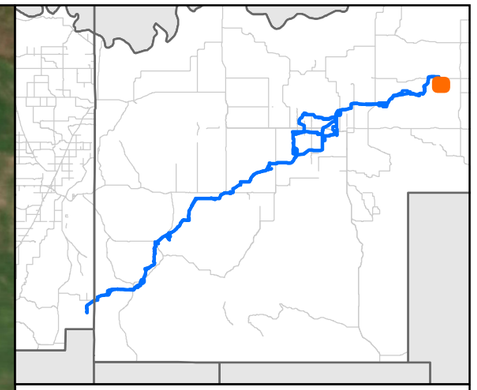
Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 83 of 84

- Non-NHD/NWI Point
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- Upland Data Point
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- Unsurveyed Area
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- PLSS Section
- Environmental Survey Area

0 400 800
Feet





MNR

Delineated Wetland/Waterbody Features
Demicks Lake Pipeline Project
ONEOK
McKenzie County, North Dakota

Figure 84 of 84

- Non-NHD/NWI Point
- PEM Data Point
- PFO Data Point
- PSS Data Point
- PUB Data Point
- Upland Data Point
- PEM Wetland
- PFO Wetland
- PSS Wetland
- PUB Wetland
- Waterbody
- Noxious Weed Population
- Unsurveyed Area
- Little Missouri National Grasslands
- Golden Eagle Nest Area
- PLSS Section
- Environmental Survey Area

0 400 800
Feet

Appendix A

Soil Map Units within Project Area

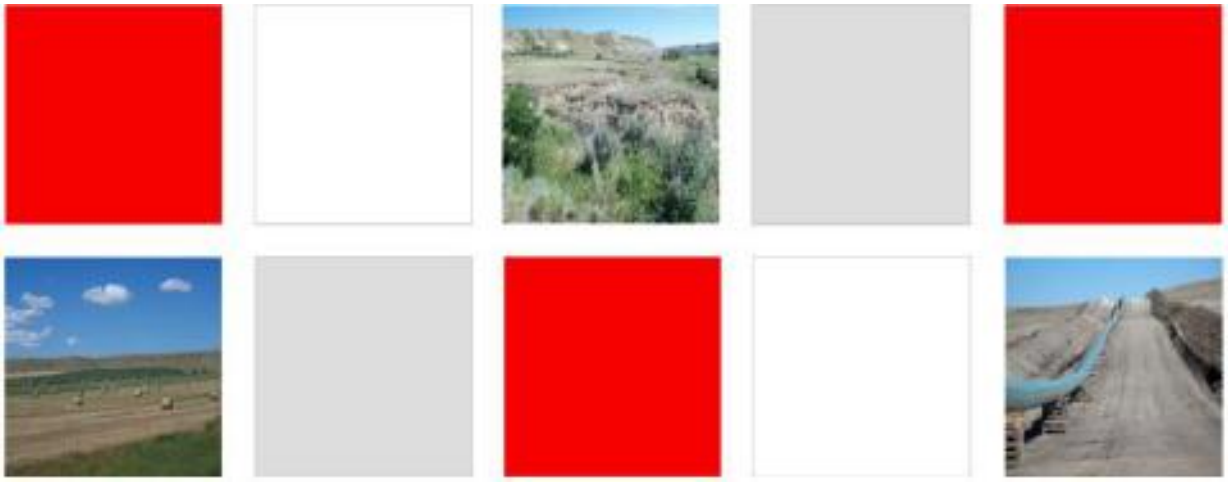
Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Soil
E0447B	Daglum-Belfield complex, 0 to 6 percent slopes	Moderately well drained	No
E0515B	Rhoades-Daglum complex, 0 to 6 percent slopes	Moderately well drained	No
E0559B	Dogtooth-Janesburg silt loams, 0 to 6 percent slopes	Well drained	No
E0563B	Janesburg-Dogtooth silt loams, 0 to 6 percent slopes	Well drained	No
E0605A	Belfield-Grail clay loams, 0 to 2 percent slopes	Moderately well drained	No
E0617B	Belfield-Savage-Daglum complex, 2 to 6 percent slopes	Moderately well drained	No
E0651B	Regent-Janesburg complex, 3 to 6 percent slopes	Well drained	No
E0651C	Regent-Janesburg complex, 6 to 9 percent slopes	Well drained	No
E0701F	Dogtooth-Janesburg-Cabba complex, 6 to 35 percent slopes	Well drained	No
E0821A	Lawther silty clay, 0 to 2 percent slopes	Well drained	No
E0835A	Savage-Grail silty clay loams, 0 to 2 percent slopes	Moderately well drained	No
E0837B	Savage silty clay loam, 2 to 6 percent slopes	Well drained	No
E0837C	Savage silty clay loam, 6 to 9 percent slopes	Well drained	No
E0913C	Moreau-Wayden silty clays, 6 to 9 percent slopes	Well drained	No
E1009B	Moreau-Barkof silty clays, 3 to 6 percent slopes	Well drained	No
E1025B	Regent-Savage silty clay loams, 3 to 6 percent slopes	Well drained	No
E1228B	Desart-Janesburg-Ekalaka complex, 0 to 6 percent slopes	Well drained	No
E1333B	Vebar-Cohagen fine sandy loams, 3 to 6 percent slopes	Well drained	No
E1333C	Vebar-Cohagen fine sandy loams, 6 to 9 percent slopes	Well drained	No
E1355D	Vebar-Flasher-Tally complex, 9 to 15 percent slopes	Well drained	No
E1403D	Beisigl-Flasher-Telfer loamy fine sands, 6 to 15 percent slopes	Somewhat excessively drained	No
E1423F	Flasher-Vebar-Parshall complex, 9 to 35 percent slopes	Well drained	No
E1603D	Beisigl-Telfer loamy fine sands, 6 to 15 percent slopes	Somewhat excessively drained	No
E1805B	Lihen-Parshall complex, 0 to 6 percent slopes	Well drained	No
E1865A	Tally-Parshall fine sandy loams, 0 to 2 percent slopes	Well drained	No
E1865B	Tally-Parshall fine sandy loams, 2 to 6 percent slopes	Well drained	No
E1865C	Tally-Parshall fine sandy loams, 6 to 9 percent slopes	Well drained	No
E2120A	Farnuf loam, 0 to 2 percent slopes	Well drained	No
E2120B	Farnuf loam, 2 to 6 percent slopes	Well drained	No
E2120C	Farnuf loam, 6 to 9 percent slopes	Well drained	No
E2213B	Golva silt loam, 2 to 6 percent slopes	Well drained	No
E2213C	Golva silt loam, 6 to 9 percent slopes	Well drained	No
E2225A	Maschetah silt loam, 0 to 2 percent slopes	Well drained	No
E2225B	Maschetah silt loam, 2 to 6 percent slopes	Well drained	No
E2225C	Maschetah silt loam, 6 to 9 percent slopes	Well drained	No
E2601C	Amor-Cabba loams, 6 to 9 percent slopes	Well drained	No
E2601D	Amor-Cabba loams, 9 to 15 percent slopes	Well drained	No
E2617F	Cabba-Chama-Shambo loams, 9 to 50 percent slopes	Well drained	No
E2641C	Reeder-Werner loams, 6 to 9 percent slopes	Well drained	No

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Soil
E2737C	Chama-Cabba-Sen silt loams, 6 to 9 percent slopes	Well drained	No
E2741D	Cabba-Chama-Sen silt loams, 9 to 15 percent slopes	Well drained	No
E2743D	Cabba-Lantry silt loams, 9 to 15 percent slopes	Well drained	No
E2803B	Amor-Shambo loams, 3 to 6 percent slopes	Well drained	No
E2819B	Reeder-Farnuf loams, 3 to 6 percent slopes	Well drained	No
E2913B	Chama-Sen-Cabba silt loams, 3 to 6 percent slopes	Well drained	No
E3009F	Brandenburg-Cabba-Badland complex, 9 to 70 percent slopes	Well drained	No
E3013D	Brandenburg-Searing-Dogtooth complex, 6 to 15 percent slopes	Well drained	No
E3013F	Brandenburg-Cabba-Dogtooth complex, 15 to 70 percent slopes	Well drained	No
E3043B	Searing-Ringling loams, 3 to 6 percent slopes	Well drained	No
E3107F	Cabba-Badland complex, 6 to 70 percent slopes	Well drained	No
E3161F	Cherry-Cabba silt loams, 9 to 45 percent slopes	Well drained	No
E3203B	Cherry silt loam, 0 to 6 percent slopes	Well drained	No
E3203C	Cherry silt loam, 6 to 9 percent slopes	Well drained	No
E3235B	Cherry-Lambert, gullied-Havrelon, occasionally flooded complex, 0 to 6 percent slopes	Well drained	No
E3513B	Niobell-Williams loams, 3 to 6 percent slopes	Moderately well drained	No
E3517A	Noonan-Niobell-Williams loams, 0 to 3 percent slopes	Moderately well drained	No
E3517B	Noonan-Niobell-Williams loams, 3 to 6 percent slopes	Moderately well drained	No
E3527A	Williams-Bowbells loams, 0 to 3 percent slopes	Moderately well drained	No
E3527B	Williams-Bowbells loams, 3 to 6 percent slopes	Moderately well drained	No
E3541B	Williams-Zahl loams, 3 to 6 percent slopes	Well drained	No
E3541C	Williams-Zahl loams, 6 to 9 percent slopes	Well drained	No
E3555D	Zahl-Williams loams, 9 to 15 percent slopes	Well drained	No
E3559E	Zahl-Max loams, 15 to 25 percent slopes	Well drained	No
E3567F	Zahl-Max loams, dissected, 15 to 45 percent slopes	Well drained	No
E3609F	Zahl-Cabba-Maschetah complex, 6 to 70 percent slopes	Well drained	No
E3635C	Zahl-Tally-Williams complex, 6 to 9 percent slopes	Well drained	No
E3637D	Zahl-Beisigl-Tally complex, 9 to 15 percent slopes	Well drained	No
E3639C	Zahl-Williams-Cabba complex, 6 to 9 percent slopes	Well drained	No
E3641D	Zahl-Cabba-Williams complex, 9 to 15 percent slopes	Well drained	No
E3701A	Dooley fine sandy loam, 0 to 3 percent slopes	Well drained	No
E3701B	Dooley fine sandy loam, 3 to 6 percent slopes	Well drained	No
E3703B	Dooley-Zahl complex, 3 to 6 percent slopes	Well drained	No
E3703C	Dooley-Zahl complex, 6 to 9 percent slopes	Well drained	No
E3703D	Dooley-Zahl complex, 9 to 15 percent slopes	Well drained	No
E4005A	Harriet loam, 0 to 2 percent slopes, occasionally flooded	Poorly drained	Yes
E4137A	Korchea loam, 0 to 2 percent slopes, occasionally flooded	Well drained	No

Soil Map Unit Symbol	Soil Map Unit Name	Drainage Class	Hydric Soil
E4139A	Korchea-Fluvaquents complex, channeled, 0 to 2 percent slopes, frequently flooded	Very poorly drained	Yes
E4143A	Korchea, wooded-Fluvaquents complex, channeled, 0 to 2 percent slopes, frequently flooded	Very poorly drained	Yes
E4190F	Cabba-Chama-Havrelon, occasionally flooded complex, 2 to 70 percent slopes	Well drained	No
E4553B	Tally fine sandy loam, gravelly substratum, 2 to 6 percent slopes	Well drained	No
E4561F	Manning-Schaller-Wabek complex, 6 to 35 percent slopes	Somewhat excessively drained	No
E4585B	Manning fine sandy loam, 2 to 6 percent slopes	Somewhat excessively drained	No
E4723A	Grano silty clay, dry, 0 to 1 percent slopes	Very poorly drained	Yes
E4729A	Heil silty clay loam, 0 to 1 percent slopes	Poorly drained	Yes
E4995F	Pits, gravel and sand	Excessively drained	No

Appendix B

Natural Resource Field Survey Protocols



ONEOK Bakken Pipeline, L.L.C.

Demicks Lake Pipeline Project

Natural Resource Field Survey Protocols

June 20, 2018

TABLE OF CONTENTS

1.0 SCOPE 1

2.0 SAFETY 1

3.0 COMMUNICATION 1

4.0 SURVEY PROTOCOLS 1

4.1 WETLANDS 1
4.1.1 Vegetation 1
4.1.1.1 Cowardin Classifications 2
4.1.2 Hydrology 2
4.1.3 Soils 2
4.1.4 Wetland Complexes 2
4.1.5 Upland Inclusions 2
4.1.6 Upland Verification - National Wetland Inventory 2
4.2 WATERBODIES 2
4.2.1 Flow Regime and Cowardin Classifications 2
4.2.2 Waterbodies within Wetland Complexes 2
4.2.3 National Hydrography Dataset – Upland Verification 2
4.3 HABITAT ASSESSMENTS 3
4.3.1 Listed Species 3
4.4 NOXIOUS WEED SURVEYS 3
4.5 TREE AND SHRUB SURVEYS 5

5.0 FIELD DATA COLLECTION 5

5.1 FEATURE ID NOMENCLATURE 5
5.2 GPS DATA COLLECTION 5
5.2.1 Start/Stop Points 5
5.2.2 Data Dictionaries 6
5.3 PHOTO DOCUMENTATION 6

6.0 REFERENCES 6

LIST OF TABLES

Table 3.3-1 USFWS Federally-listed Threatened, Endangered, Proposed, and Candidate Species by County 3
Table 3.4-1 North Dakota and Minnesota State Listed Noxious Weeds 3

1.0 SCOPE

The objective of these protocols for wetland and waterbody, habitat assessment, noxious weeds, and tree and shrub surveys is to ensure that Merjent, Inc. (Merjent) and its subcontractors, implement consistent field data collection procedures for the Demicks Lake Pipeline Project (Project). The Natural Resource Field Survey Protocols (Protocols) incorporate all applicable agency and client requirements to-date in order to facilitate timely and complete environmental permitting applications.

2.0 SAFETY

Safety is a priority for ONEOK, Inc. (ONEOK) and Merjent. Compliance with all Project-specific safety requirements is mandated by all parties. For specific information on safety requirements, please refer to the Health & Safety Plans therein.

3.0 COMMUNICATION

Please refer to the to the Communication Plan therein.

4.0 SURVEY PROTOCOLS

The entire 300-foot-wide environmental survey corridor and proposed compressor station site will be walked during field surveys to minimize the chance of missing any wetland communities, waterbody features, noxious weeds, woody vegetation, or potential suitable habitat areas that may affect permitting, constructability, or mitigation efforts.

4.1 WETLANDS

Crews will delineate all wetlands regardless of potential jurisdictional status and will collect data for wetland features encountered in the survey corridor. Wetland delineation methods will follow standard protocols set forth in the following publications:

- 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (1987 Manual);
- 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (Regional Supplement; USACE 2010);
- Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979); and
- The National Wetland Plant List (NWPL; Lichvar et al. 2016).

Data collection procedures include completing the USACE Wetland Determination Forms, collecting wetland boundaries via global positioning system (GPS) and data dictionary (see Section 4.2), collecting the spatial point data for wetland data points, and taking representative photos (see Section 4.3).

4.1.1 Vegetation

Vegetation sampling and documentation will follow procedures as described in the 1987 Manual, the Regional Supplement, community types as outlined in Cowardin et al. (1979), while using the wetland indicator statuses as prescribed by the National Wetland Plant List.

4.1.1.1 Cowardin Classifications

Cowardin classifications will be assigned to all delineated wetlands in North Dakota and Montana as either palustrine emergent (PEM), agricultural PEM (AG-PEM), palustrine unconsolidated bottom (PUB), palustrine scrub-shrub (PSS), and/or palustrine forested (PFO).

4.1.2 Hydrology

Hydrology sampling and documentation will follow procedures as described in the 1987 Manual and the Regional Supplement.

4.1.3 Soils

Soil sampling and documentation will follow procedures as described in the 1987 Manual and the Regional Supplement, which requires one soil profile to be collected at each data point.

Due to safety concerns, One Calls must be placed and marked before any ground disturbance can occur. **One calls are the responsibility of the individual performing soil excavations.**

Digging in roadside ditches is not prohibited, but is **not** recommended due to the likelihood of buried private utilities.

4.1.4 Wetland Complexes

For wetlands with multiple Cowardin classes, each discrete community will be identified when it comprises 10 percent or more of the wetland complex within the environmental survey corridor. Each discrete community within a wetland complex will require at least one representative USACE Wetland Determination Form, spatial data (boundaries and data points), and a photo.

4.1.5 Upland Inclusions

Upland inclusions within a wetland may be observed and will be delineated. In these cases, crews will collect the spatial wetland/upland boundary and a USACE upland data point to represent the upland inclusion.

4.1.6 Upland Verification - National Wetland Inventory

An area may be identified as a U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) wetland, but field indicators may conclude that the area doesn't meet the wetland parameters, thus is an upland. In these situations, field crews will:

- Collect a spatial data point location within the area indicated by NWI to be wetland;
- Collect detailed and defensible notes via data dictionary on vegetation, soil, and hydrology to document why the area is upland (note: completing a USACE Wetland Determination Form is not necessary); and
- Take a photograph of the NWI-indicated area to further characterize its upland nature.

In other instances, crews may locate an NWI that overlaps the observed wetland or is skewed from the observed wetland. In these cases, no additional documentation is needed for the upland fragment of the NWI area.

4.2 WATERBODIES

Waterbody surveys will be completed in conjunction with wetland surveys and crews will delineate all waterbodies regardless of potential jurisdictional status. Waterbody delineation methods will follow the protocols set forth in the following publications:

- Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification (USACE 2005); and
- Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979).

Waterbody data collection will consist of completing the Waterbody Community Data Form, collecting spatial data, and photos (see Section 4.3). Spatial data will be collected as follows:

- Waterbodies less than or equal to 10 feet between original high water mark (OHWM) will be delineated by capturing the centerline of the waterbody bed; and
- Waterbodies with an OHWM width greater than 10 feet will be delineated by capturing the OHWM along each bank.

4.2.1 Flow Regime and Cowardin Classifications

Flow regime will be defined as ephemeral, intermittent, or perennial. These will need to correspond to the appropriate Cowardin Class.

- Ephemeral Waterbodies – Defined as those features with an obvious bed and bank and are inundated following spring thaw and after periods of rainfall (otherwise these features are dry).
- Intermittent Waterbodies – Defined as those features with an obvious bed and bank but likely have water present within the feature throughout the growing season. These features will additionally show evidence of sorting or stratification of materials (cobble, sand, organic matter).
- Perennial Waterbodies – Defined as those features with an obvious bed and bank and have standing water as well as evidence of aquatic fauna and flora consistently throughout the year.

4.2.2 Waterbodies within Wetland Complexes

There may be situations where a waterbody feature is contained within a larger wetland feature. Under these circumstances, the waterbody feature will be delineated separately from the wetland feature, as to differentiate the features for permitting and mitigation purposes.

4.2.3 National Hydrography Dataset – Upland Verification

An area may be identified as a U.S. Geological Survey National Hydrography Dataset (NHD) waterbody, but field indicators may conclude that the area does not contain a bed or bank (i.e., OHWM) and is entirely upland. In these situations, field crews will:

- Collect a spatial point location within the area indicated by NHD to be waterbody; and
- Take a photograph of the NHD-indicated area to further characterize its upland nature.

In other instances, crews may locate an NHD that overlaps the observed waterbody or is skewed from the observed feature. In those cases, no additional documentation is needed for the upland fragment of the NHD area.

4.3 HABITAT ASSESSMENTS

Habitat assessment surveys, including raptor nests, will be completed where crews will delineate all potentially suitable habitat for federal- and state-listed threatened and endangered species. Data collection for habitat assessments will be limited to GPS data collection via data dictionary and photo documentation. If a community, individual, or population is observed, polygon data will be collected.

Note that habitat assessments and species-specific surveys for the Dakota skipper (*Hesperia dacotae;* DASK) are considered a separate survey effort.

4.3.1 Listed Species

The USFWS lists eight federally-listed threatened and endangered species in McKenzie County, North Dakota, and Richland County, Montana (see Table 4.3.1). Designated critical habitat is listed along the Project area.

Table 4.3-1
USFWS Federally-listed Threatened and Endangered Species [a]

Scientific Name	Common Name	Federal Status
Canis lupus	Gray wolf	Endangered
Myotis septentrionalis	Northern long-eared Bat	Threatened
Sterna antillarum	Least tern	Endangered
Charadrius melodus	Piping plover	Threatened, Critical habitat
Calidris canutus rufa	Red knot	Threatened
Grus americana	Whooping crane	Endangered
Scaphirhynchus albus	Pallid sturgeon	Endangered
Hesperia dacotae	Dakota skipper	Threatened, Critical habitat

[a] https://ecos.fws.gov/ipac/ (accessed June 2018)

4.4 NOXIOUS WEED SURVEYS

Noxious weed surveys will be conducted where crews will delineate all occurrences of state- and county-listed noxious weeds in McKenzie County, North Dakota. Data collection for noxious weeds will be limited to GPS data collection via data dictionary and photo documentation.

The North Dakota Department of Agriculture lists 11 noxious weed species in the state and McKenzie County, North Dakota lists five additional species (see Table 4.4-1). The Montana Department of Agriculture lists multiple species; Richland County, Montana does not list any noxious or invasive weed species in addition to the State.

Table 4.4-1
North Dakota and Montana Departments of Agriculture, and McKenzie County Listed Noxious Weeds

Species Scientific Name	Species Common Name
North Dakota Department of Agriculture [a]	
Artemisia absinthium	Absinth wormwood
Cirsium arvense	Canada thistle
Linaria genistifolia	Dalmation toadflax
Centaurea diffusa	Diffuse knapweed
Euphorbia esula	Leafy spurge
Carduus nutans	Musk thistle
Lythrum salicaria	Purple loosestrife

Table 4.4-1
North Dakota and Montana Departments of Agriculture, and McKenzie County Listed Noxious Weeds

Species Scientific Name	Species Common Name
Acroptilon repens	Russian knapweed
Tamarix chinensis, T. parviflora, T. ramosissima	Saltcedar
Centaurea maculosa	Spotted knapweed
Linaria vulgaris	Yellow toadflax
McKenzie County [b]	
Gypsophila paniculata	Baby's breath
Hyoscyamus niger	Black henbane
Arctium minus	Common burdock
Halogeton glomeratus	Halogeton
Cynoglossum officinale	Houndstongue
Montana Department of Agriculture [c]	
Myriophyllum aquaticum, M. brasiliense	Parrot feather watermilfoil
Egeria densa	Brazilian waterweed
Elaeagnus angustifolia	Russian olive
Hydrilla verticillata	Hydrilla
Berteroa incana	Hoary alyssum
Potamogeton crispus	Curlyleaf pondweed
Tamarix spp.	*Saltcedar*
Linaria vulgaris	Yellow toadflax
Cynoglossum officinale	Houndstongue
Leucanthemum vulgare	Oxeye daisy
Tanacetum vulgare	Common tansy
Potentilla recta	Sulfur cinquefoil
Hypericum perforatum	St. Johnswort
Linaria dalmatica	Dalmatian toadflax
Centaurea diffusa	Diffuse knapweed
Centaurea stoebe, C.maculosa	Spotted knapweed
Acroptilon repens, Rhaponticum repens	Russian knapweed
Cardaria draba, Lepidium draba	Whitetop
Euphorbia esula	Leafy spurge
Convolvulus arvensis	Field bindweed
Cirsium arvense	Canada thistle
Rhamnus cathartica	Common buckthorn
Butomus umbellatus	Flowering rush
Myriophyllum spicatum, M. spicatum x sibiricum	Eurasian watermilfoil
Iris pseudacorus	Yellowflag iris
Lepidium latifolium	Perennial pepperweed
Ranunculus acris	Tall buttercup
(Hieracium aurantiacum, Pilosella aurantiaca	Orange hawkweed
Hieracium caespitosum, H. praealturm, H. floridundum, and Pilosella caespitosa	Meadow hawkweed
Senecio jacobaea, Jacobaea vulgaris	Tansy ragwort
Echium vulgare	Blueweed
Cytisus scoparius	Scotch broom
Chondrilla juncea	Rush skeletonweed
Lythrum salicaria	Purple loosestrife
Polygonum cuspidatum, P. sachalinense, P. × bohemicum, Fallopia japonica, F. sachalinensis, F. × bohemica, Reynoutria japonica, R. sachalinensis, and R.× bohemica	Knotweed
Taeniatherum caput-medusae	Medusahead
Phragmites australis ssp. australis	Common reed
Isatis tinctoria	Dyer's woad
Centaurea solstitialis	Yellow starthistle

[a] https://www.nd.gov/ndda/plant-industries/noxious-weeds (accessed June 2018)
[b] https://www.nd.gov/ndda/sites/default/files/resource/2018%20Feb%20-%20City%20County%20Noxious%20Weeds%20List.pdf (accessed June 2018)
[c] http://agr.mt.gov/Portals/168/Documents/Weeds/2017%20Noxious%20Weed%20List.pdf (accessed June 2018)

4.5 TREE AND SHRUB SURVEYS

Tree and shrub surveys will be conducted where crews will delineate all occurrences of woody vegetation that meets the USACE 1987 definitions of trees and shrubs in North Dakota and will be performed in accordance with the North Dakota Public Service Commission's Tree and Shrub Mitigation guidance. Data collection for trees and shrubs will be limited to GPS data collection via data dictionary and photo documentation.

5.0 FIELD DATA COLLECTION

The field data collection procedures as described in Section 4.1 through 4.5 are further explained in this below, including detailed descriptions of feature ID nomenclature, spatial data collection procedures, and photos.

5.1 FEATURE ID NOMENCLATURE

Feature ID nomenclature for wetlands, waterbodies, potential habitat, noxious weeds, and woody vegetation is Project specific and will be labeled in accordance with the methods outlined below. The first character of the Feature ID is meant to decipher the feature type (e.g., wetland, stream, woody vegetation, etc.), otherwise, the format is at the discretion of the subcontractor. The Feature IDs must remain consistent for the life of the Project.

The first character of each feature IDs are to be used as follows:

- W = wetlands
  - W1 = wetland data point
  - U1 = upland data point
- S = waterbodies
- N = non-water upland verification points
- H = potential habitat
- X = noxious weeds
- T = trees, shrubs

5.2 GPS DATA COLLECTION

Sub-meter accurate GPS units will be used to locate wetland boundaries, USACE sample point locations, waterbody features, potential habitat, noxious weeds, and woody vegetation within the survey corridor. Data dictionaries will be used to supplement the spatial data collection for all disciplines.

The coordinate system to be used will be UTM Zone 14N in meters.

Polygons are required for wetlands, waterbodies, habitat, noxious weeds, and woody vegetation data. For wetlands, at least one wetland data point should be included for each wetland polygon, as well as a corresponding upland data point.

5.2.1 Start/Stop Points

Start and stop points will be used for survey tracking, coverage, and quality control purposes. Two start and stop points (one at each extent of the corridor) will be taken at the beginning of surveys and at the conclusion of surveys for each contiguous area surveyed.

For example, if four continuous tracts were surveyed, two start points will be taken at the beginning of Tract 1 and two stop points will be taken at the end of Tract 4. However, if intermittent tracts are being surveyed, each tract (or continuous area) will have its own start and stop points.

5.2.2 Data Dictionaries

Data dictionaries will be used as the main form of data collection for wetlands, waterbodies, habitat assessments, noxious weeds, and woody vegetation, and will also supplement the wetland and waterbody data. Data dictionaries must either be approved by Merjent, or will be provided to the Subcontractor by Merjent, in order to ensure full compliance with applicable regulations.

5.3 PHOTO DOCUMENTATION

Photo IDs will always match their Feature IDs. To take a photo of a wetland, waterbody, a specific Cowardin community within a complex, or a habitat area, it may be necessary to do so from outside the wetland or community. The name for the photo will match the wetland or community being photographed, not the location where it was taken. For example, a photo of a wetland taken from an upland area will be labelled with a “w”; not a “u” or other upland label.

The purpose of taking photos is to characterize the surveyed feature (wetland, waterbody, habitat, noxious weed, tree and shrub, or upland verification points). At least one representative photograph will be taken of each feature, except for waterbodies. Two representative photographs will be taken of each waterbody; the first photograph will be perpendicular to the waterbody and the second photograph will be parallel to the waterbody. If multiple plant communities are present in a given wetland (e.g., wetland complex; PEM/PSS/PFO), a representative photograph of each plant community will be taken.

- Photos will be taken in the landscape (horizontal) orientation;
- Photos will be a representative image of the feature; and
- Photos will not be taken looking into the sun as this will obscure the photo. When possible, the sun should be at the back of the photographer.

6.0 REFERENCES

Cowardin, L. M., V. Carter, F.C. Golet, and E.D. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Office of Biological Services, Washington, D.C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

USACE. 2005. Regulatory Guidance Letter No. 05-05, Ordinary High Water Mark Identification. December 7, 2005.

USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains (Version 2.0). ERDC/EL TR-10-1, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Appendix C

Table of Delineated Wetland Features

Feature ID	Cowardin	Regime	Acres	Mapbook Page
w-18042d-049	PEM	Saturated	0.17	8
w-18042d-050	PEM	Saturated	0.02	8
w-18042d-051	PEM	Saturated	0.48	8
w-18042g-001	PEM	Saturated	0.05	9
w-18042g-002	PEM	Saturated	0.04	9
w-18042d-001	PEM	Saturated	0.11	22
w-18042d-002	PEM	Saturated	0.11	24
w-18042d-003	PEM	Saturated	0.16	26
w-18042d-004	PEM	Saturated	0.11	28
w-18042d-005	PEM	Saturated	0.37	28
w-18042d-006	PEM	Saturated	0.12	30
w-18042d-007	PEM	Saturated	0.90	31
w-18042d-008	PEM	Saturated	0.05	31
w-18042d-009	PEM	Saturated	0.09	31
w-18042d-010	PEM	Saturated	0.16	31
w-18042d-011	PEM	Saturated	0.11	31
w-18042d-012	PEM	Saturated	0.08	31
w-18042d-013	PEM	Saturated	0.10	31
w-18042d-014	PEM	Temporarily Flooded	0.25	32
w-18042d-015	PEM	Saturated	0.62	34
w-18042d-016	PEM	Saturated	0.48	36
w-18042d-017	PEM	Saturated	3.73	36
w-18042d-018	PEM	Seasonally Flooded	2.02	38
w-18042d-070	PEM	Saturated	0.20	38
w-18042d-019	PEM	Saturated	1.13	41
w-18042d-020	PEM	Saturated	0.02	42
w-18042d-021	PEM/PUB	Saturated/Permanently Flooded	0.19	42
w-18042d-026	PEM	Saturated	0.04	42
w-18042d-022	PEM	Saturated	1.53	43
w-18042d-023	PEM	Saturated	0.35	44
w-18042d-024	PEM	Saturated	0.32	44
w-18042d-025	PEM	Saturated	0.17	44
w-18042g-003	PEM	Saturated	0.01	44
w-18042d-027	PEM	Seasonally Flooded	0.78	48
w-18042d-028	PEM/PFO	Saturated	0.06	48
w-18042d-029	PEM	Saturated	0.05	48
w-18042d-030	PEM	Saturated	1.28	48
w-18042d-031	PEM	Saturated	0.07	48
w-18042d-032	PEM	Saturated	0.18	48
w-18042d-033	PEM	Seasonally Flooded	1.07	48

Feature ID	Cowardin	Regime	Acres	Mapbook Page
w-18042d-034	PEM	Saturated	1.39	48
w-18042d-035	PEM	Saturated	0.39	48
w-18042d-036	PFO/PEM	Saturated	0.51	48
w-18042d-037	PFO	Saturated	0.07	48
w-18042d-052	PEM	Saturated	0.23	48
w-18042d-053	PEM	Seasonally Flooded	0.75	48
w-18042d-054	PEM	Saturated	0.29	48
w-18042d-055	PFO	Saturated	0.07	48
w-18042d-056	PEM	Saturated	0.63	48
w-18042d-057	PEM	Saturated	0.87	48
w-18042d-058	PEM	Seasonally Flooded	0.31	48
w-18042d-059	PEM	Saturated	1.56	48
w-18042d-038	PEM	Temporarily Flooded	0.19	51
w-18042d-039	PEM	Saturated	0.07	51
w-18042d-040	PEM	Temporarily Flooded	0.10	51
w-18042d-041	PEM	Saturated	0.20	51
w-18042d-042	PEM	Temporarily Flooded	0.80	51
w-18042d-043	PEM	Temporarily Flooded	0.43	51
w-18042d-044	PEM	Temporarily Flooded	0.47	52
w-18042d-045	PEM	Saturated	0.68	53
w-18042d-046	PEM	Saturated	0.09	53
w-18042d-047	PEM	Saturated	0.02	53
w-18042d-048	PEM	Seasonally Flooded	0.18	53
w-18042e-007	PEM	Seasonally Flooded	0.15	55
o-18042e-002	PUB	Permanently Flooded	0.36	57
w-18042e-006	PEM	Seasonally Flooded	9.80	57
o-18042e-001	PUB	Semi-Permanently Flooded	0.16	58
w-18042e-001	PEM	Saturated	0.04	58
w-18042e-002	PEM	Saturated	0.03	65
w-18042e-004	PEM	Saturated	0.44	66
w-18042e-005	PEM	Saturated	0.22	67
w-18042h-002	PEM	Saturated	45.43	67
w-18042h-003	PEM	Saturated	47.41	67
w-18042e-008	PEM	Seasonally Flooded	0.43	71
w-18042e-009	PEM	Saturated	0.13	71
w-18042e-010	PEM	Saturated	0.70	72
w-18042h-004	PEM	Temporarily Flooded	0.94	72
w-18042d-067	PEM/PUB	Seasonally Flooded/Permanently Flooded	1.29	77
w-18042d-068	PEM	Saturated	0.20	77
w-18042d-069	PFO	Saturated	0.18	77

Feature ID	Cowardin	Regime	Acres	Mapbook Page
w-18042d-066	PSS	Saturated	0.02	79
w-18042d-063	PEM	Saturated	0.08	82
w-18042d-064	PEM	Saturated	0.14	82
w-18042d-065	PEM	Temporarily Flooded	0.13	82
w-18042d-060	PEM	Saturated	1.13	83
w-18042d-061	PEM	Saturated	0.05	83
w-18042d-062	PEM	Saturated	0.40	83

Appendix D

Wetland Determination Forms

Available upon request

Appendix E

Wetland Photographs

Available upon request

Appendix F

Table of Delineated Waterbody Features

Feature ID	Cowardin	Regime	OHWM Width (ft)	Mapbook Page
s-18042d-001	R6	Ephemeral	3.0	2
s-18042d-002	R4SB	Intermittent	4.0	7
s-18042d-003	R4SB	Intermittent	4.0	7
s-18042d-026	R6	Ephemeral	6.0	8
s-18042d-004	R6	Ephemeral	4.0	9
s-18042d-005	R6	Ephemeral	4.0	9
s-18042d-006	R6	Ephemeral	4.0	9
s-18042d-008	R6	Ephemeral	3.0	9
s-18042d-032	R6	Ephemeral	3.0	9
s-18042g-005	R6	Ephemeral	4.0	9
s-18042d-010	R6	Ephemeral	5.0	11
s-18042d-011	R6	Ephemeral	3.0	11
s-18042g-004	R6	Ephemeral	4.0	11
s-18042d-012	R6	Ephemeral	3.0	14
s-18042d-013	R6	Ephemeral	4.0	15
s-18042d-019	R6	Ephemeral	5.0	18
s-18042d-020	R6	Ephemeral	2.0	19
s-18042d-021	R4SB	Intermittent	8.0	19
s-18042d-022	R6	Ephemeral	3.0	20
s-18042d-014	R6	Ephemeral	3.0	25
s-18042d-015	R4SB	Intermittent	8.0	26
s-18042h-001	R6	Ephemeral	2.0	28
s-18042d-016	R4SB	Intermittent	5.0	31
s-18042d-017	R6	Ephemeral	3.0	33
s-18042d-018	R6	Ephemeral	3.0	36
s-18042d-023	R6	Ephemeral	4.0	46
s-18042d-024	R4SB	Intermittent	4.0	48
s-18042d-025	R6	Ephemeral	2.0	48
s-18042d-027	R4SB	Intermittent	3.0	48
s-18042e-003	R6	Ephemeral	4.0	55
s-18042e-001	R4SB	Intermittent	30.0	58
s-18042e-002	R6	Ephemeral	3.0	65
s-18042e-004	R6	Ephemeral	3.0	71
s-18042d-028	R6	Ephemeral	3.0	77
s-18042d-029	R6	Ephemeral	2.0	77
s-18042d-030	R6	Ephemeral	2.0	77

Appendix G

Waterbody Forms

Available upon request

Appendix H

Waterbody Photographs

Available upon request

Appendix I

Table of Dakota Skipper Habitat Data

Appendix I redacted from NDPSC submittal

Appendix J

Dakota Skipper Habitat Photographs

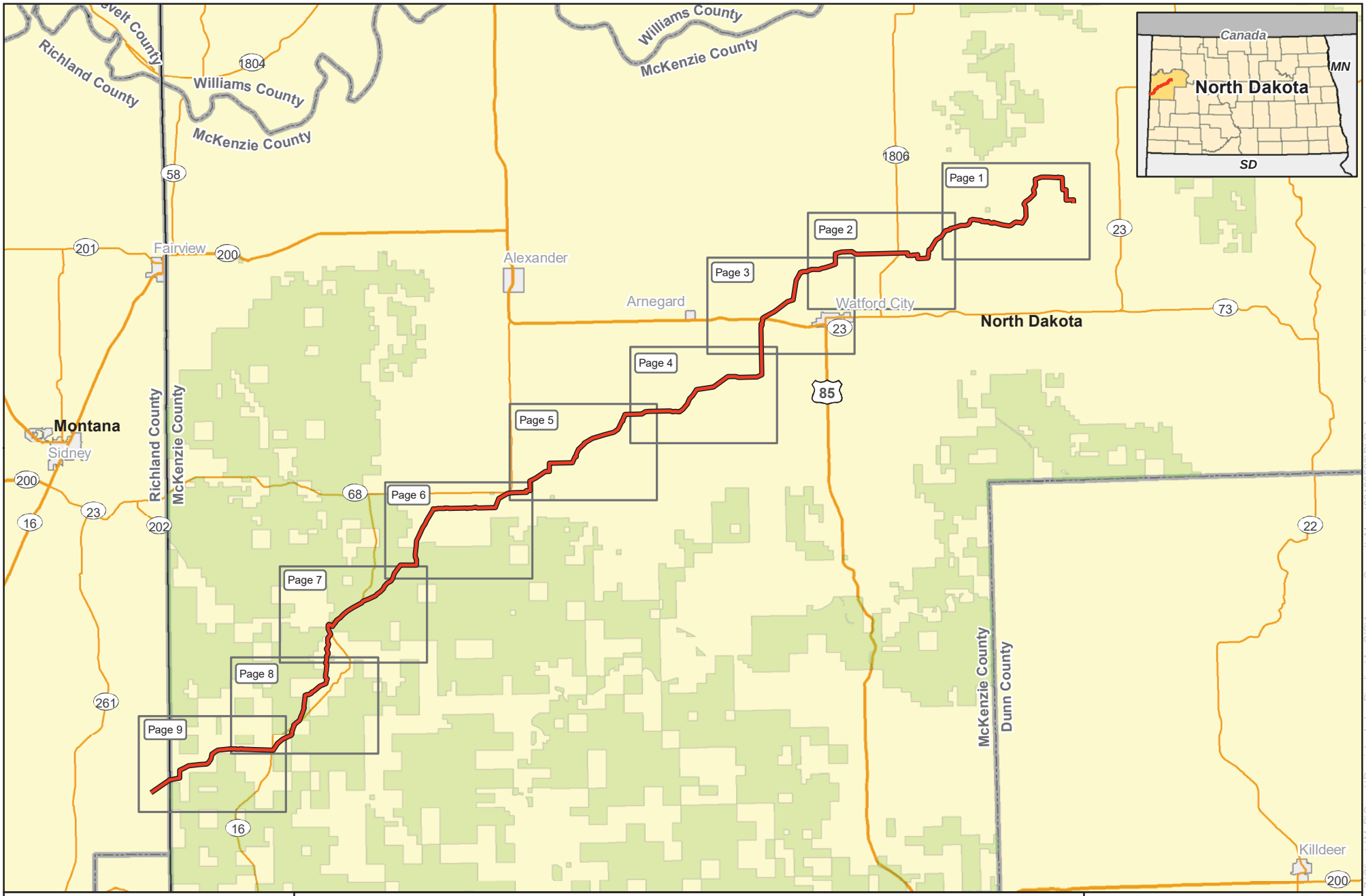
Appendix J redacted from NDPSC submittal

Exhibit D

Agency Consultations

Original Mapset

<<included with June 7 2018 mailings>>



0 3.5 7 Miles

1 inch = 7 miles

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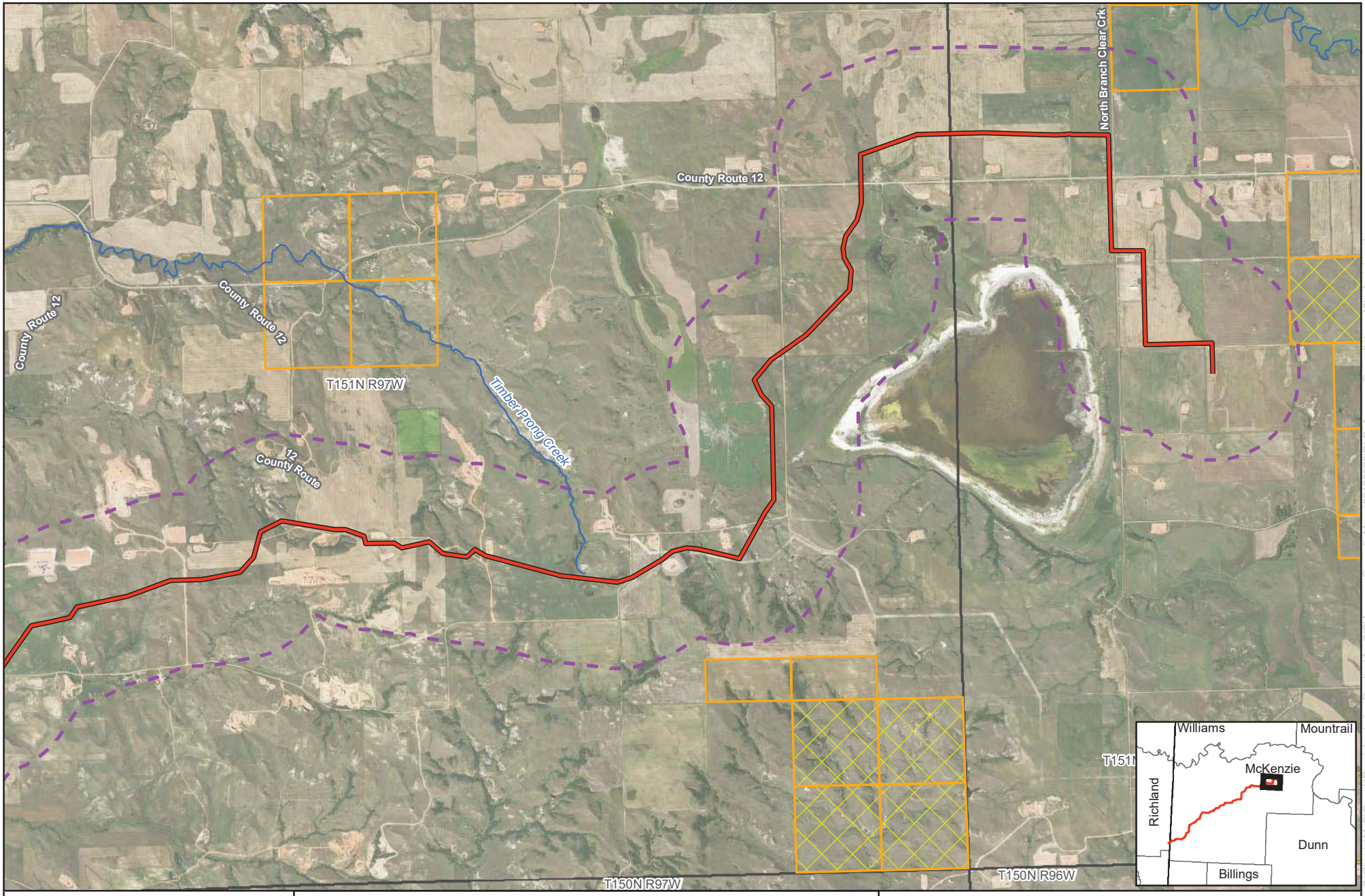
ONEOK
Demicks Lake Pipeline Project
Project Location Map
McKenzie County, ND and Richland County, MT

Proposed Pipeline

National Grassland

Source: Z:\Clients\M_P\Oneok\Demicks_Lake_Pipeline\ArcGIS\Agency_Consult_Maps\20180522\DLP_Agency_Consultation_Project_Overview.mxd

Date: (6/6/2018)



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1 inch = 4,000 feet

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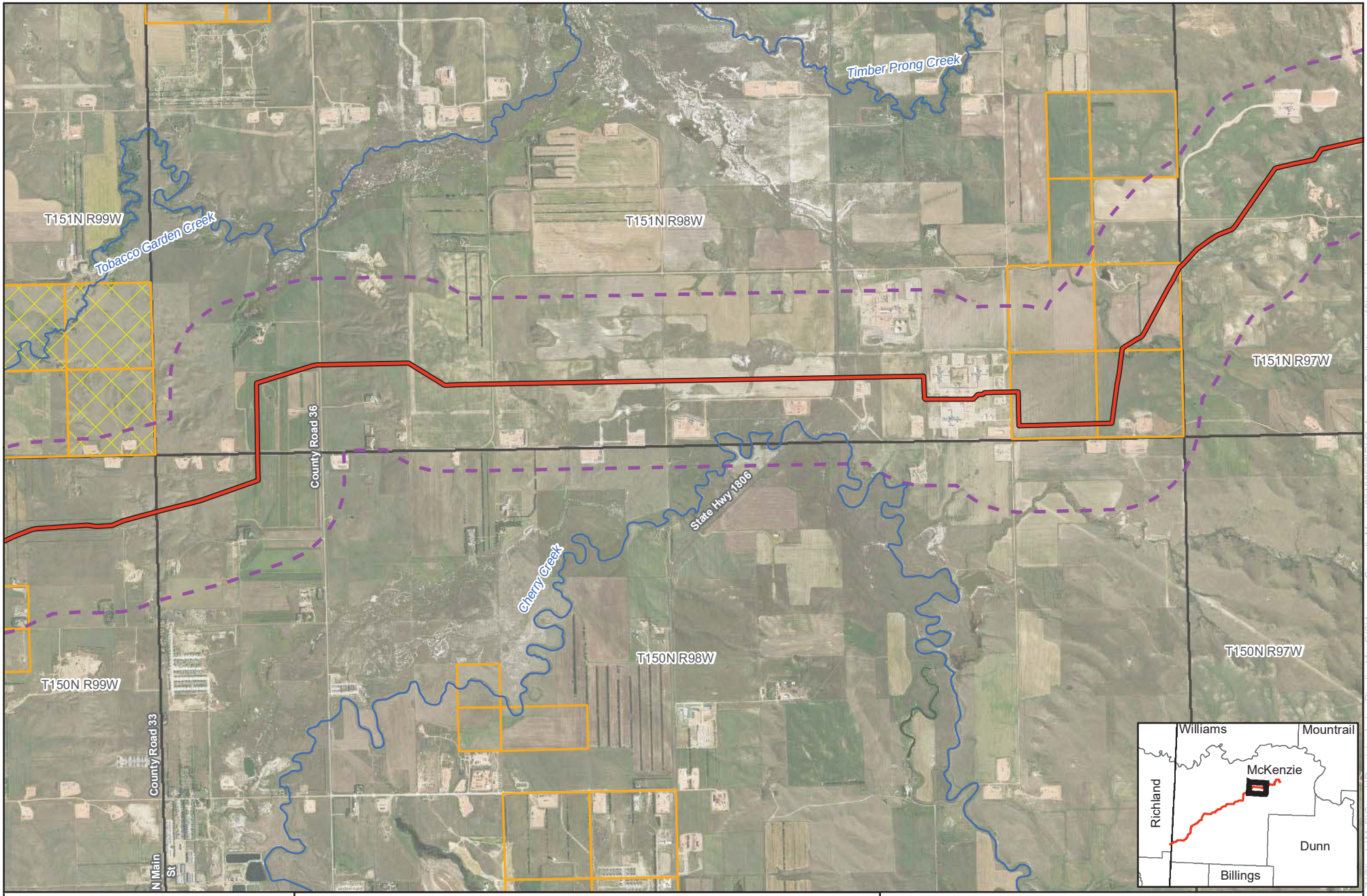
Page 1 of 9

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND

- Proposed Pipeline
- NHD Waterbody
- 1-Mile Buffer
- Township Boundary
- ND Trust Land - Mineral
- ND School Trust Land
- National Grassland

Source: Z:\Clients\M_P\Oneok\Demicks_Lake_Pipeline\ArcGIS\Agency_Consult_Maps\20180522\DLP_Agency_Consultation_48k_Aerial.mxd

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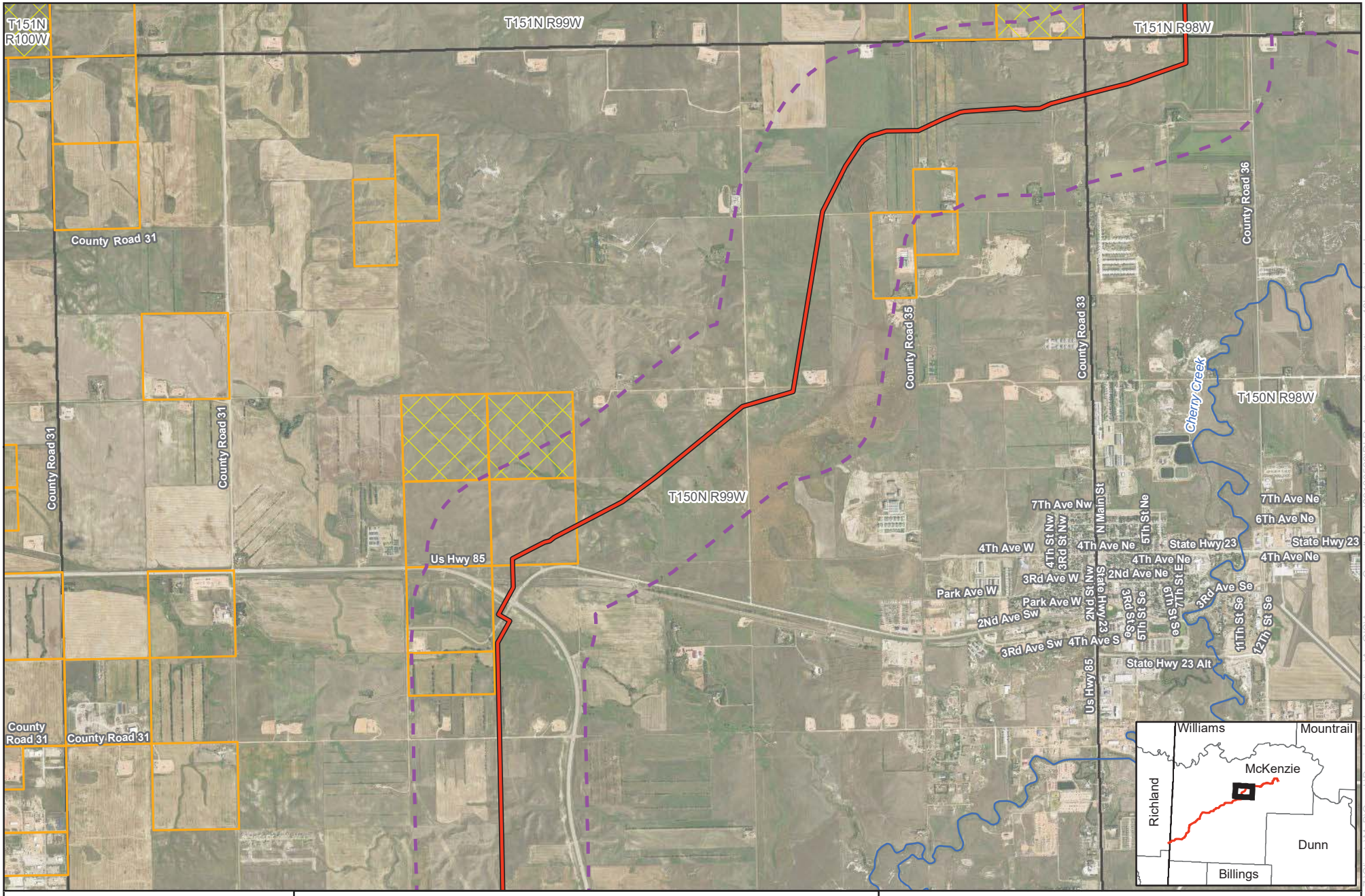
Page 2 of 9

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Demicks Lake Pipeline Project
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McKenzie County, ND

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Date: (6/6/2018)



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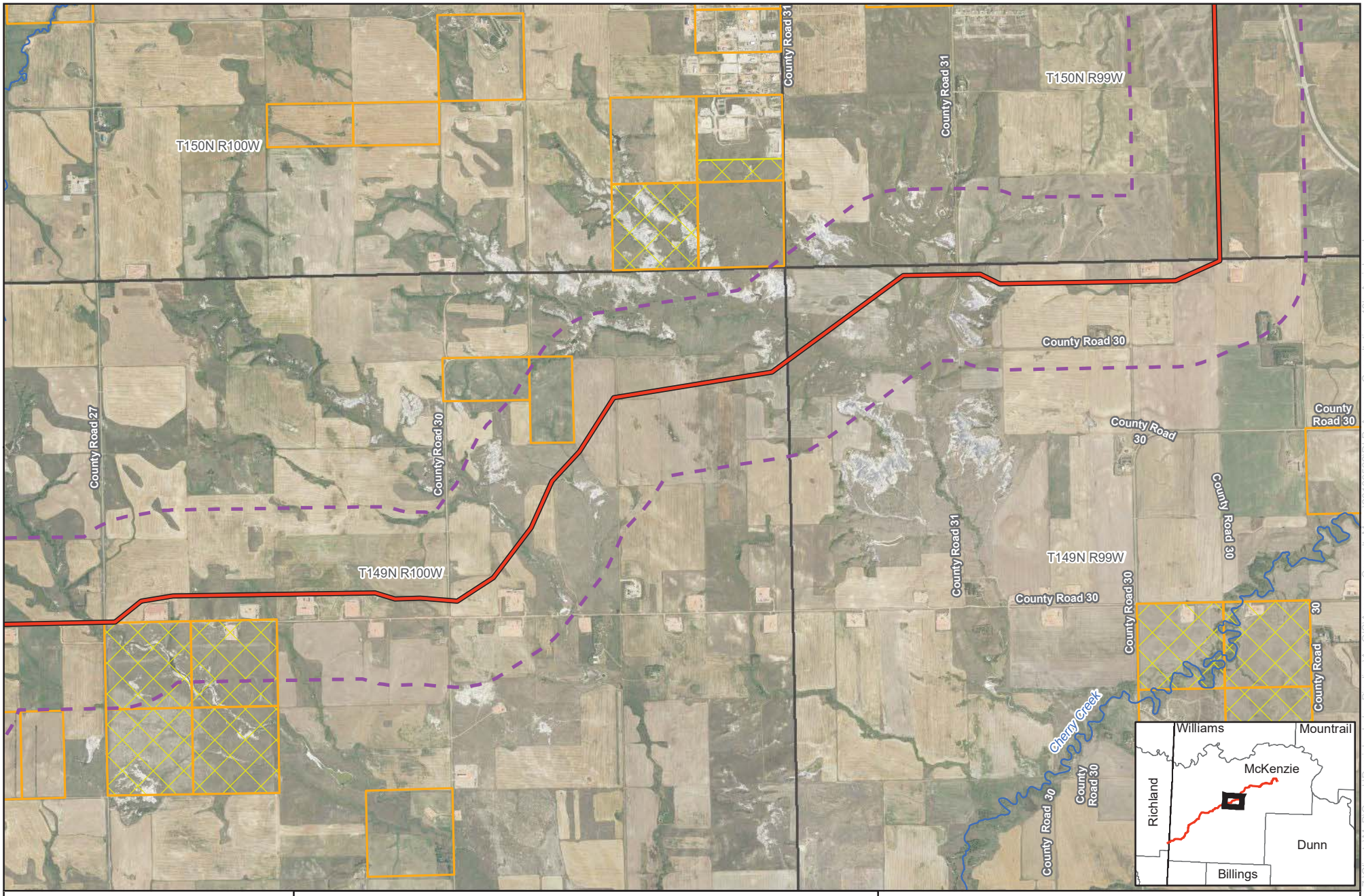
Page 3 of 9

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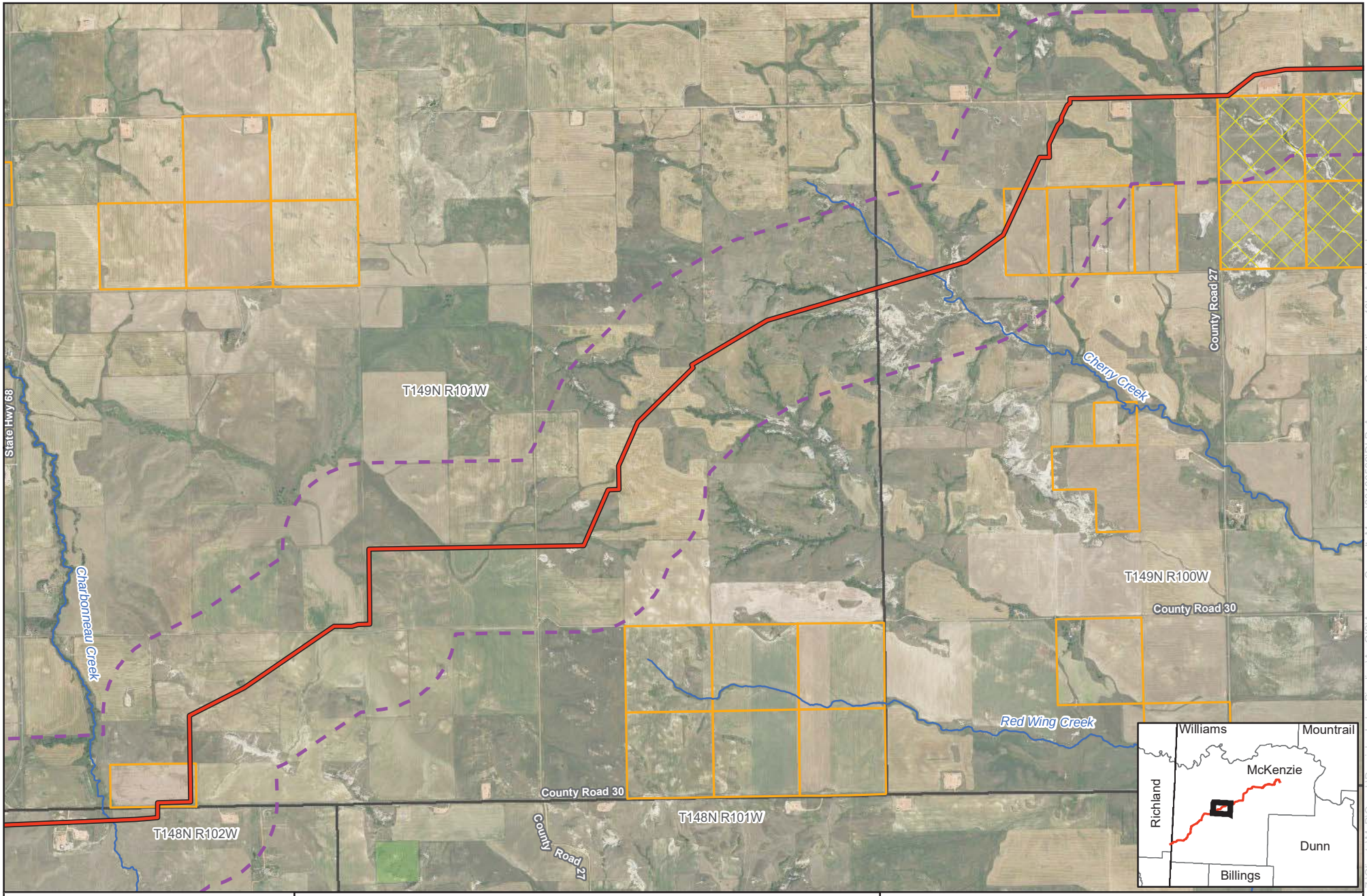
Page 4 of 9

ONEOK
Demicks Lake Pipeline Project
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McKenzie County, ND

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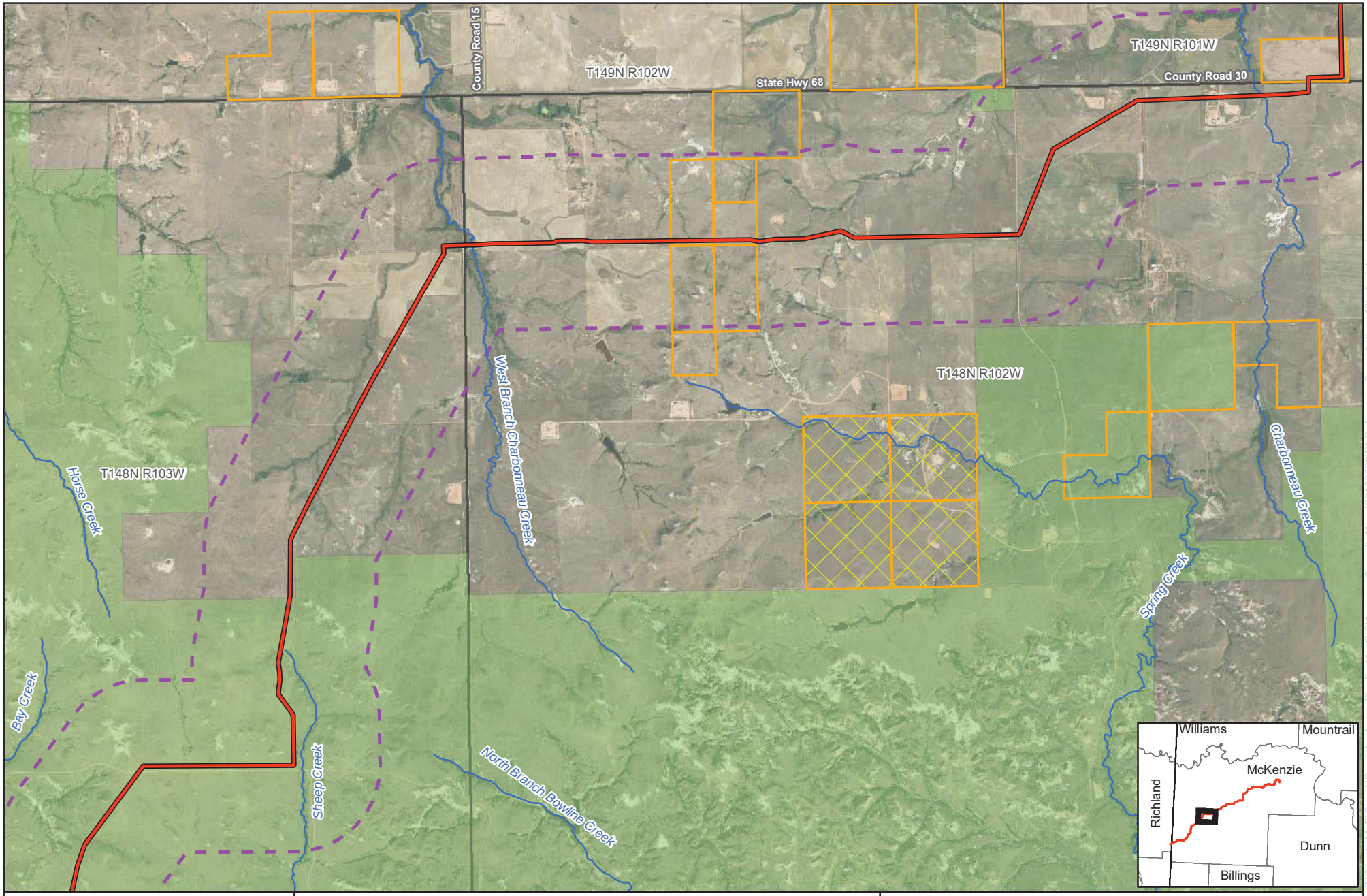
Page 5 of 9

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND

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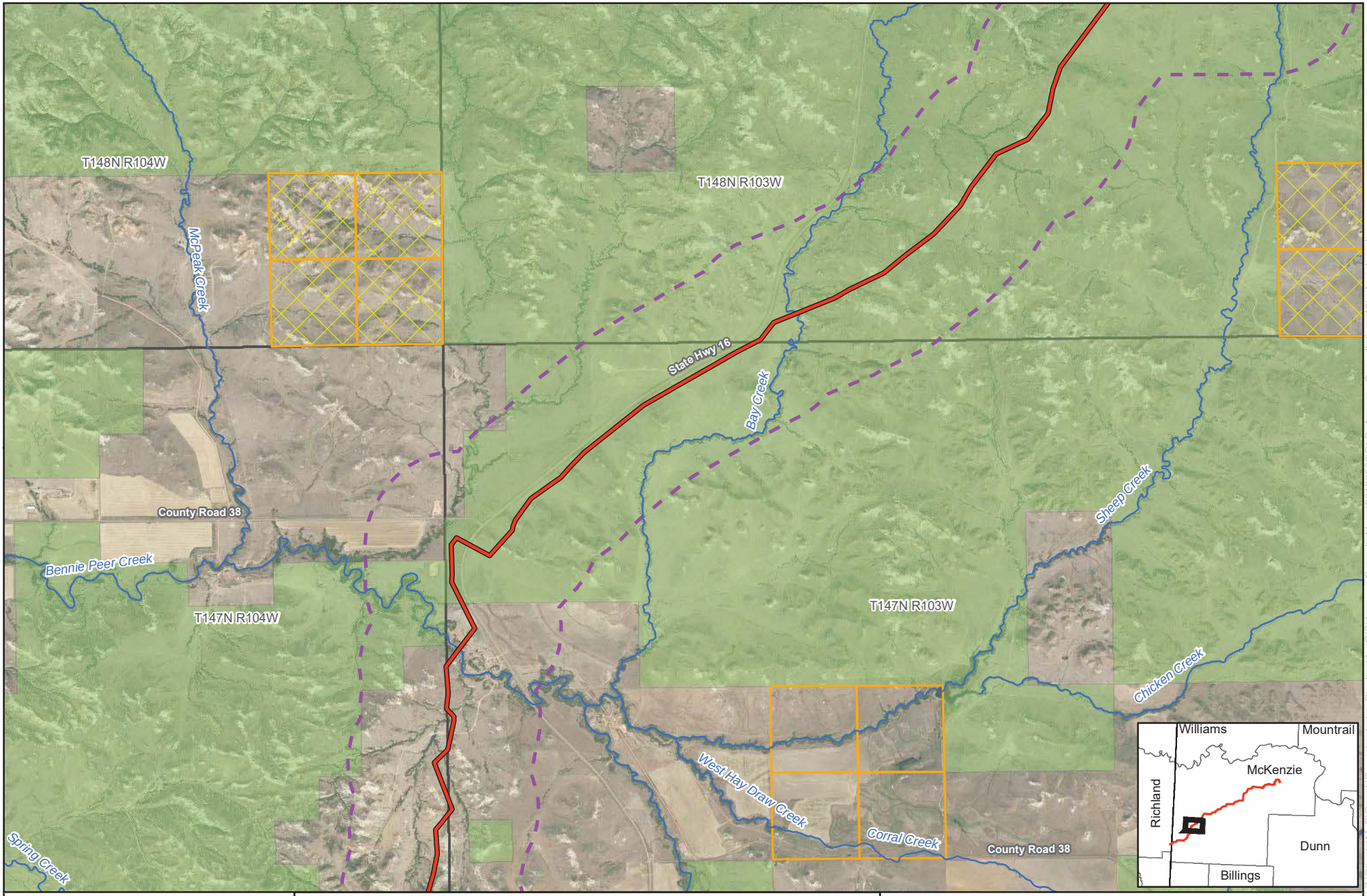
Page 6 of 9

ONEOK
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McKenzie County, ND

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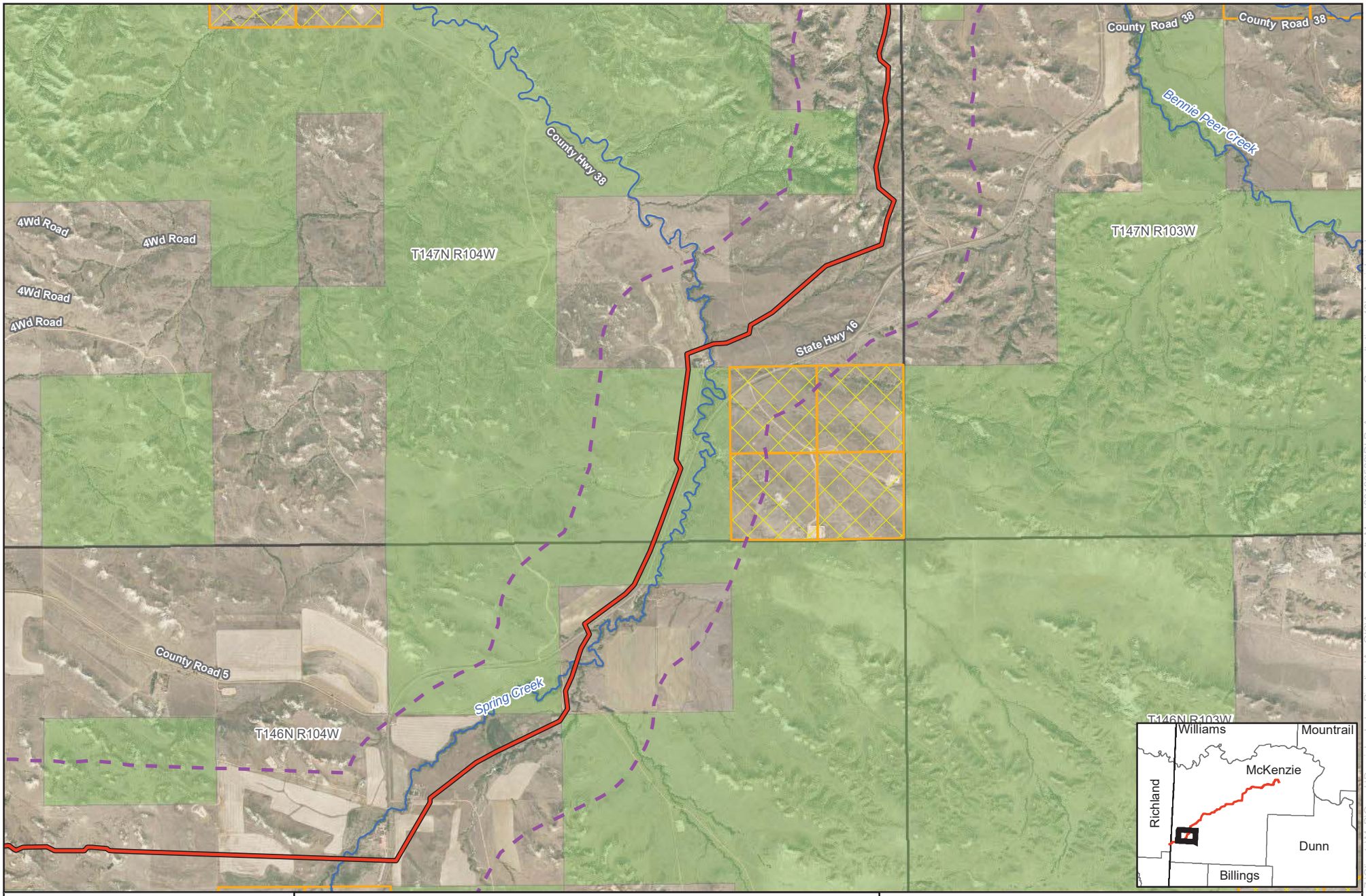
Page 7 of 9

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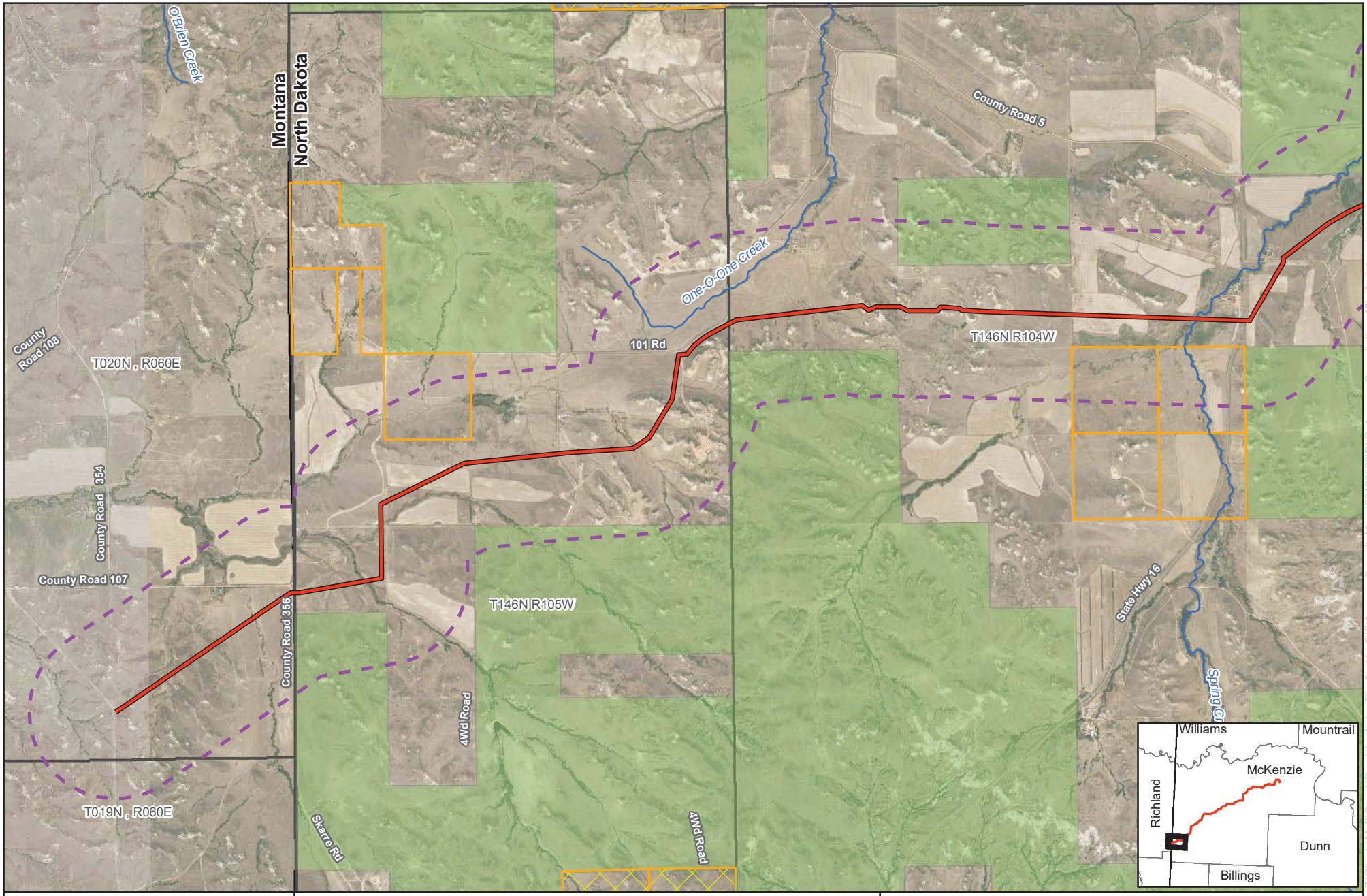
Page 8 of 9

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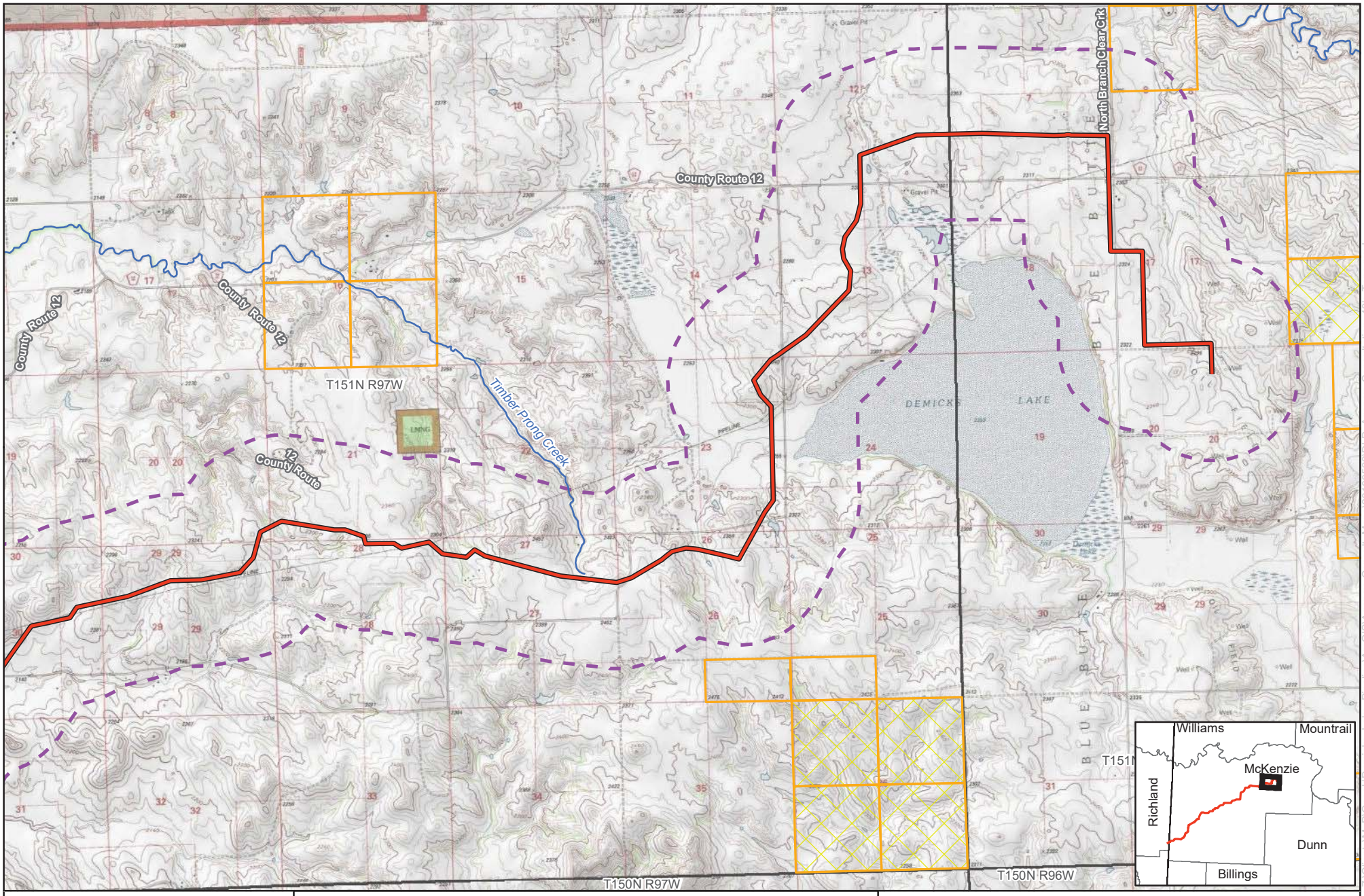
Page 9 of 9

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND and Richland County, MT

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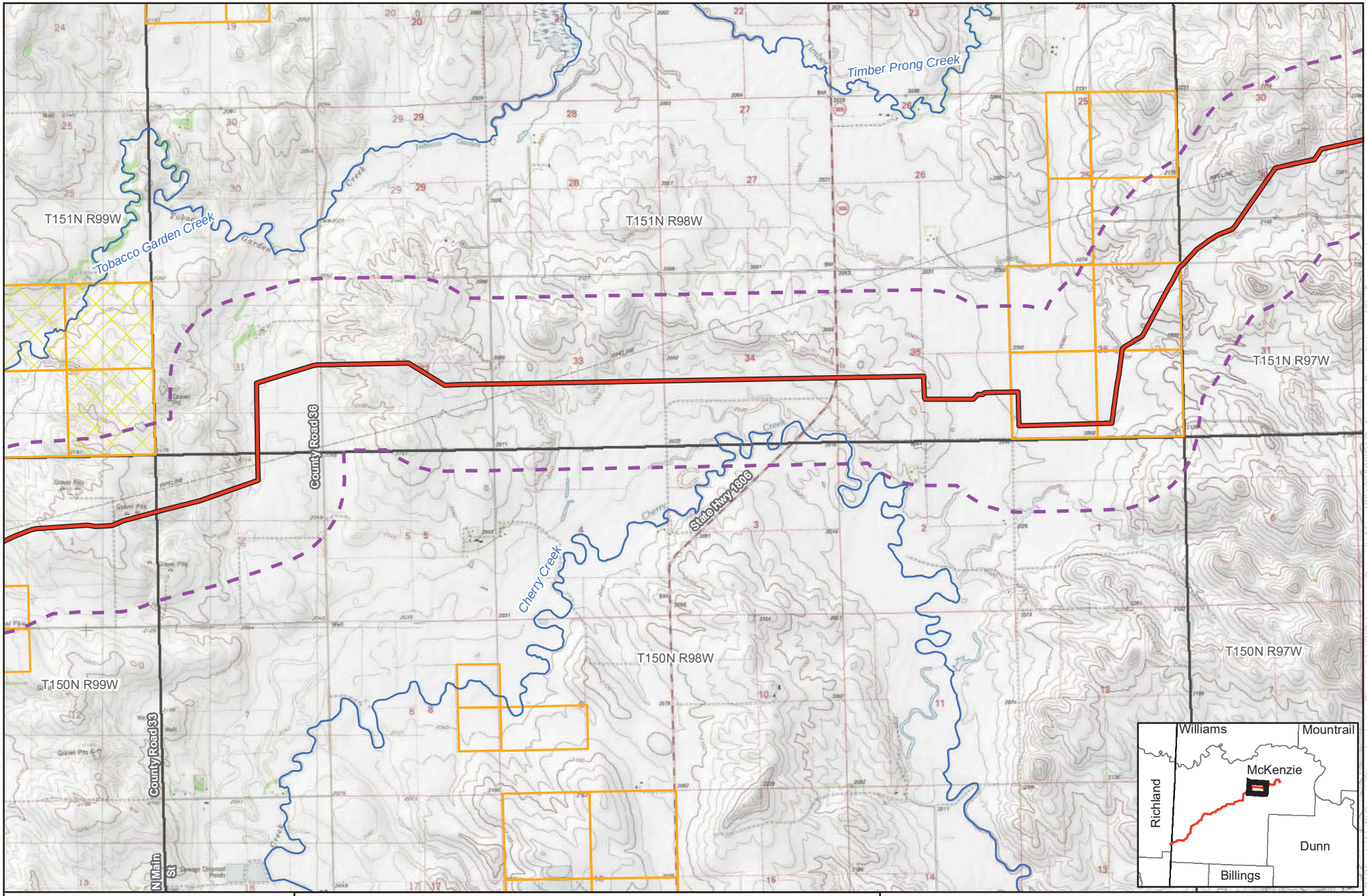
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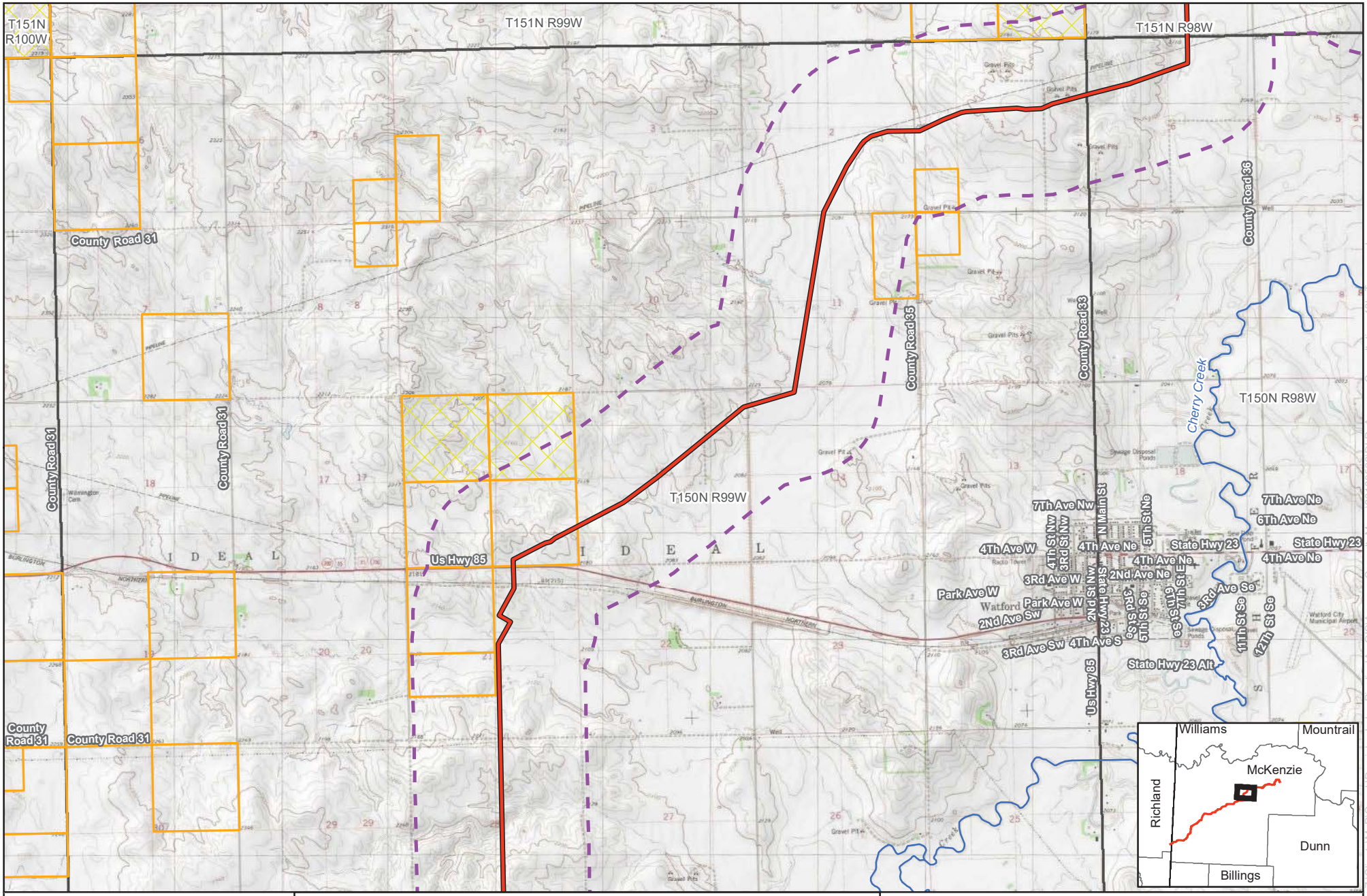
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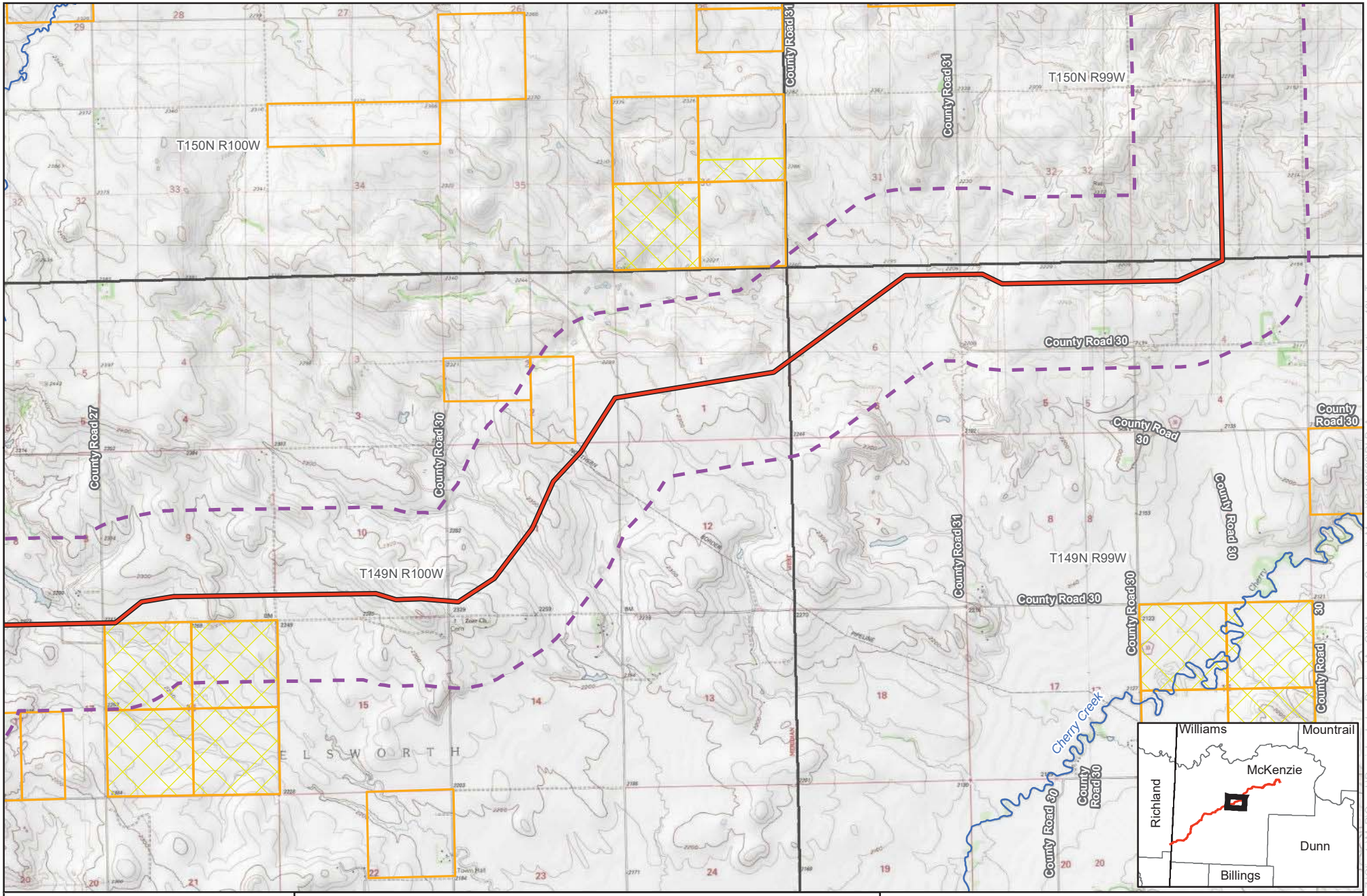
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Date: (6/6/2018)


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T151N R98W
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County Road 33
County Road 33
T150N R99W
T150N R98W
Cherry Creek
Us Hwy 85
Us Hwy 85
I D E A L
I D E A L
7Th Ave Nw
4Th Ave W
3Rd Ave W
Park Ave W
Watford Park Ave W
2Nd Ave Sw
3Rd Ave Sw
4Th Ave S
4Th St Nw
3Rd St Nw
2Nd St Nw
N Main St
5Th St Ne
4Th Ave Ne
2Nd Ave Ne
State Hwy 23
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6Th Ave Ne
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3Rd Ave Se
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Page 3 of 9
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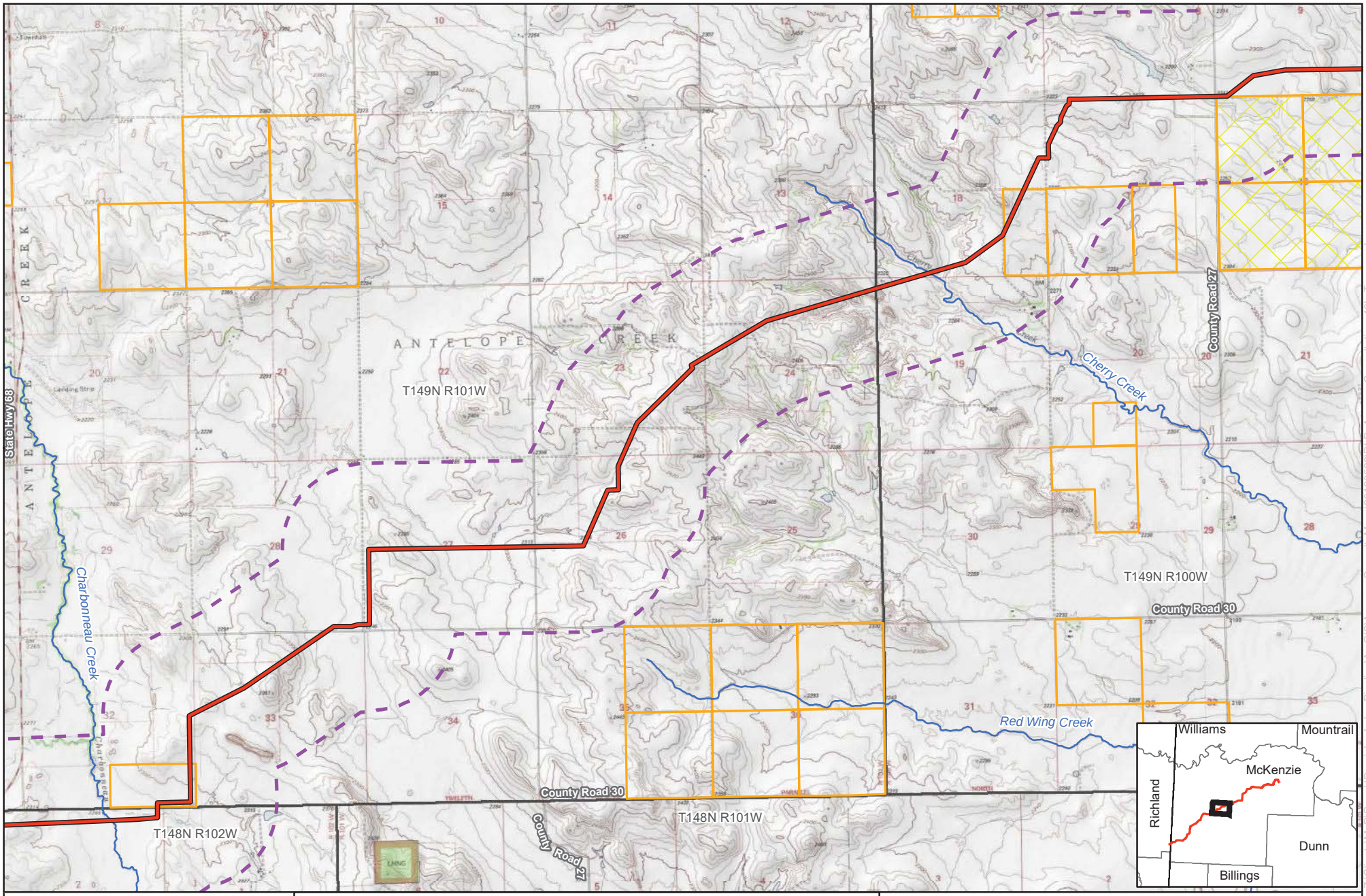
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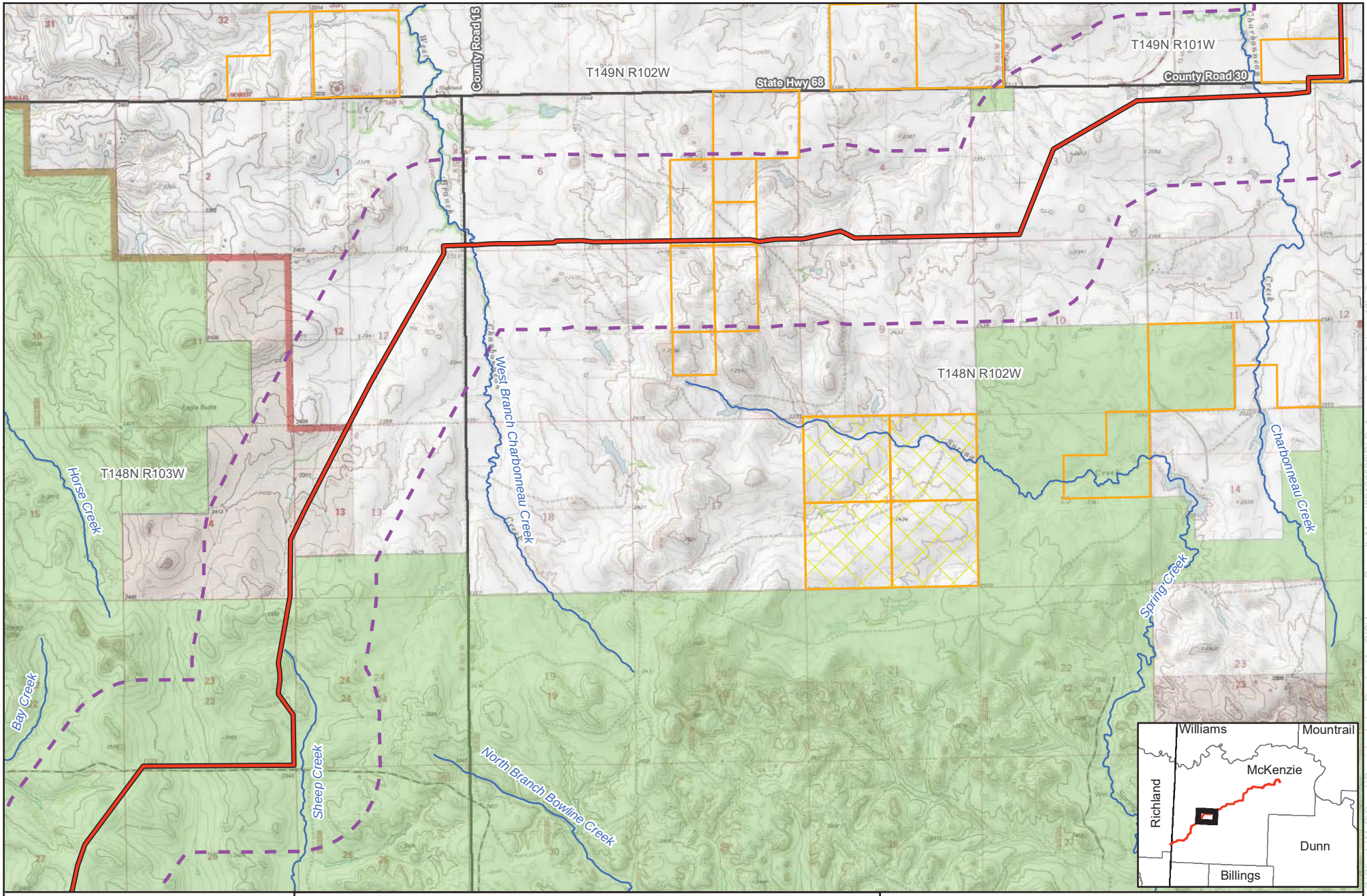
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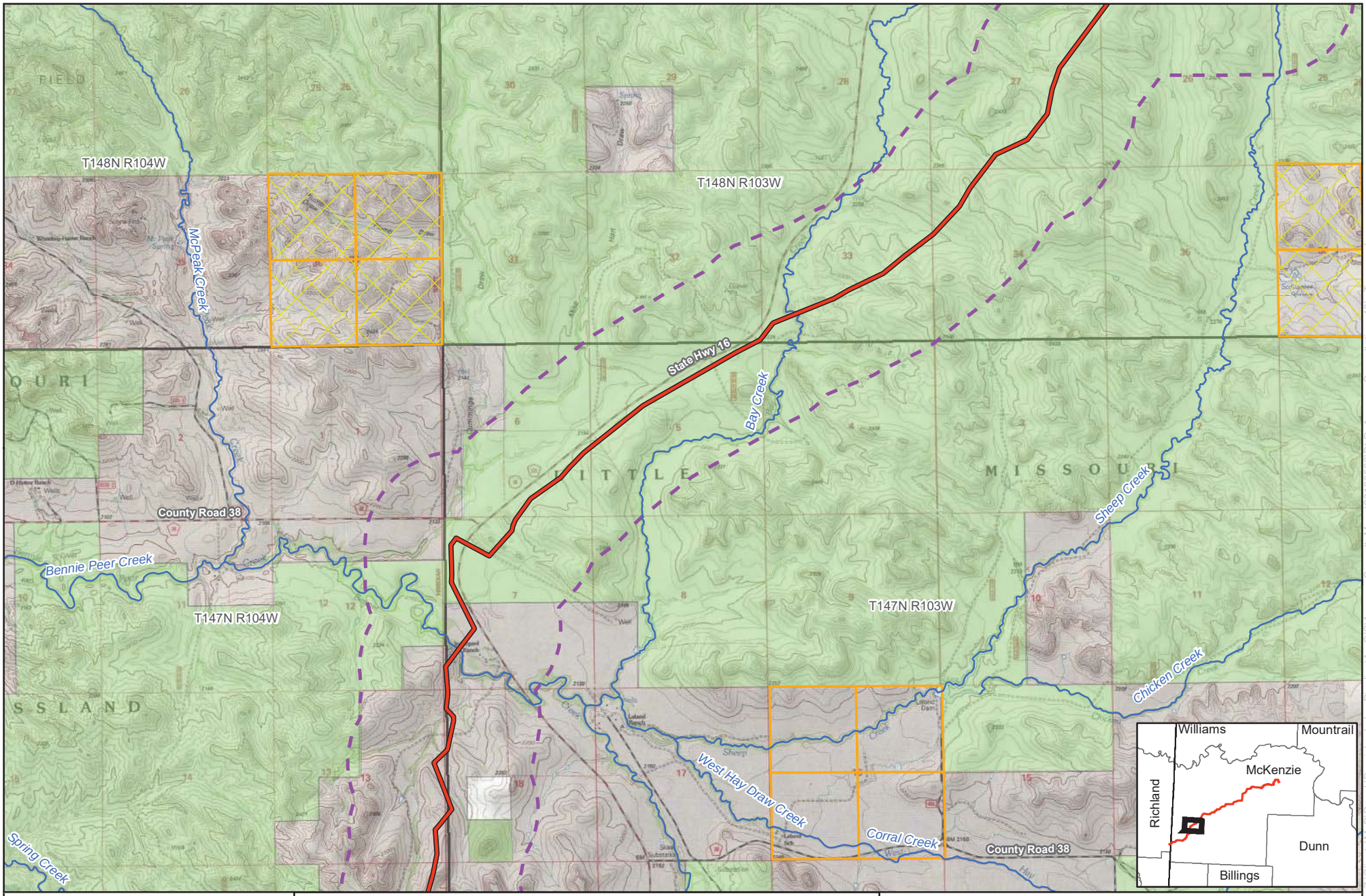
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For Environmental Review Purposes Only

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND

- Proposed Pipeline
- NHD Waterbody
- 1-Mile Buffer
- Township Boundary
- ND Trust Land - Mineral
- ND School Trust Land
- National Grassland

Source: Z:\Clients\M_P\Oneok\Demicks_Lake_Pipeline\ArcGIS\Agency_Consult_Maps\20180522\DLP_Agency_Consultation_48k_Topo.mxd

Date: (6/6/2018)



0 2,000 4,000 Feet

1 inch = 4,000 feet

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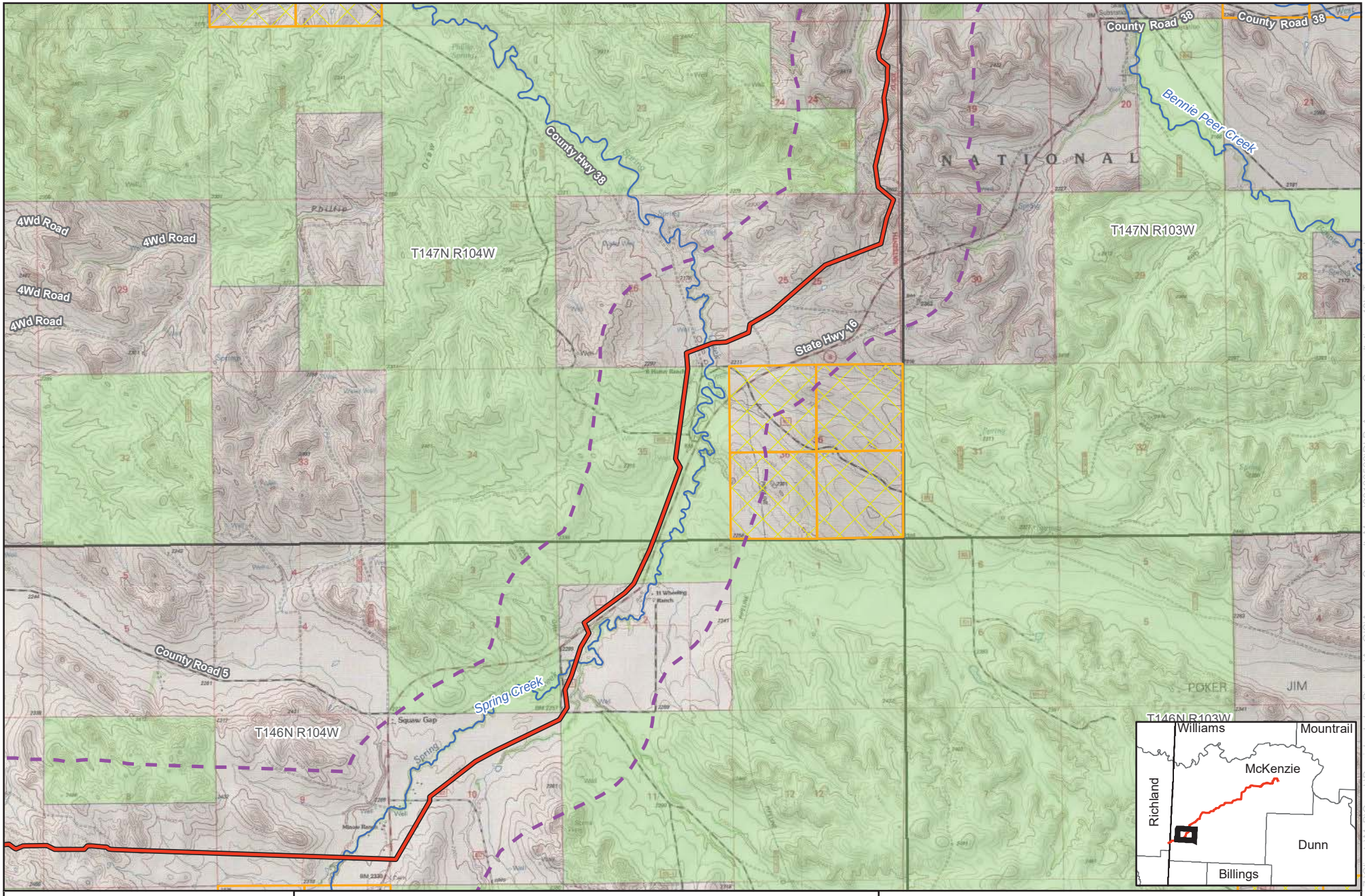
Page 7 of 9

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND

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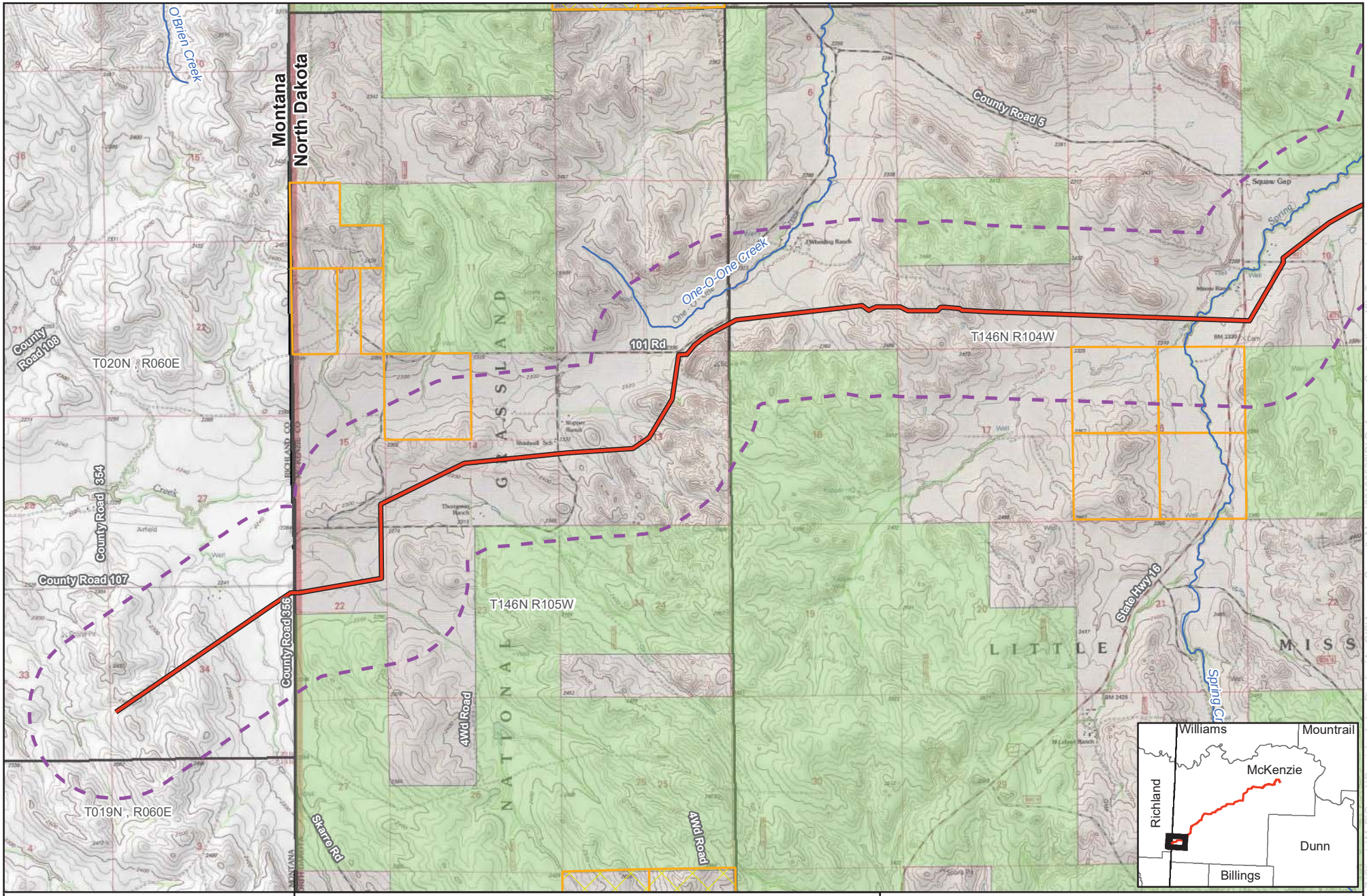
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ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND

- Proposed Pipeline
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Page 9 of 9

ONEOK
Demicks Lake Pipeline Project
Federal and State Lands
McKenzie County, ND and Richland County, MT

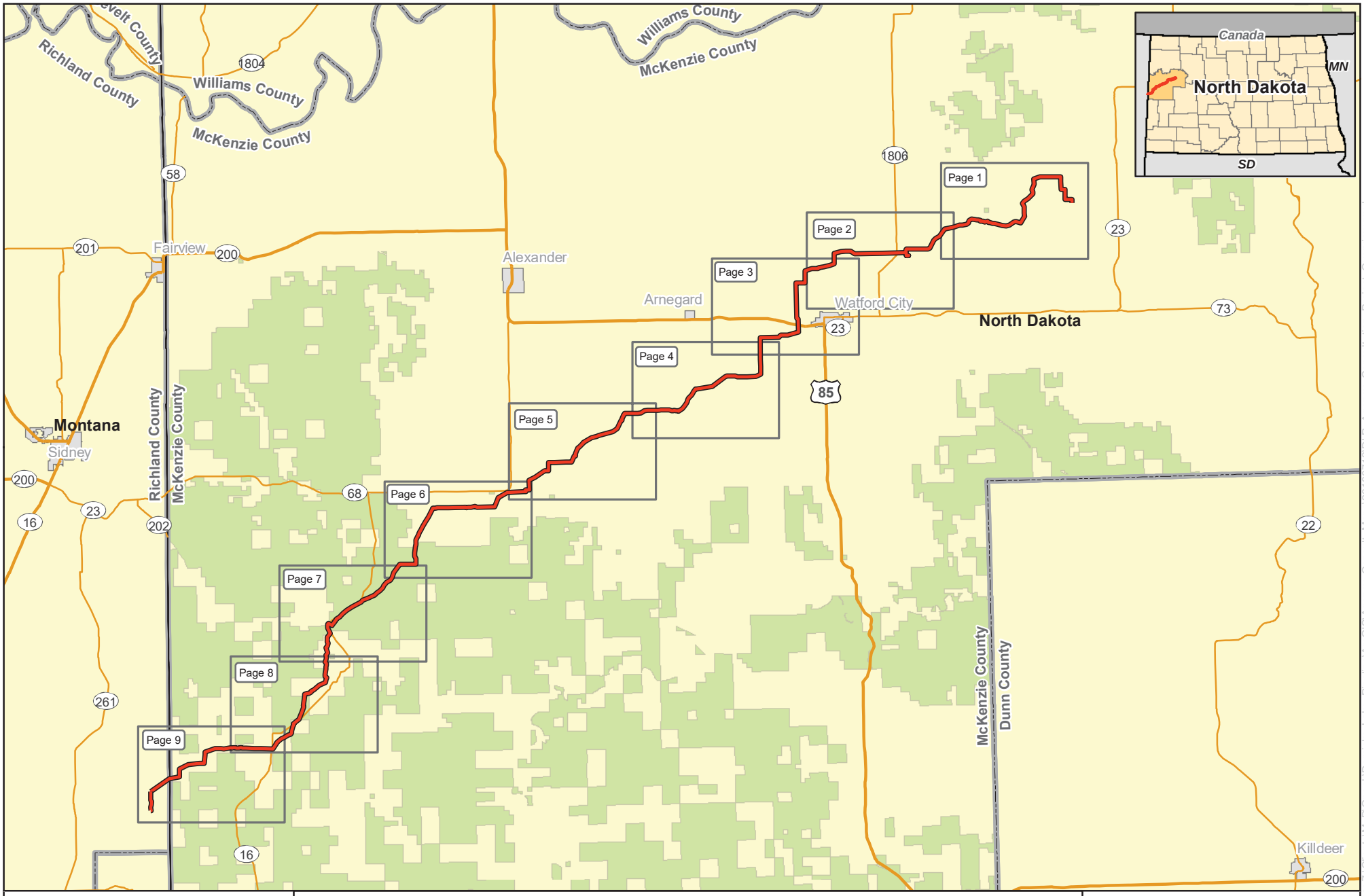
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Date: (6/6/2018)

Updated Mapset

<<included with August 1, 2018 mailings>>



0 3.5 7 Miles

1 inch = 7 miles

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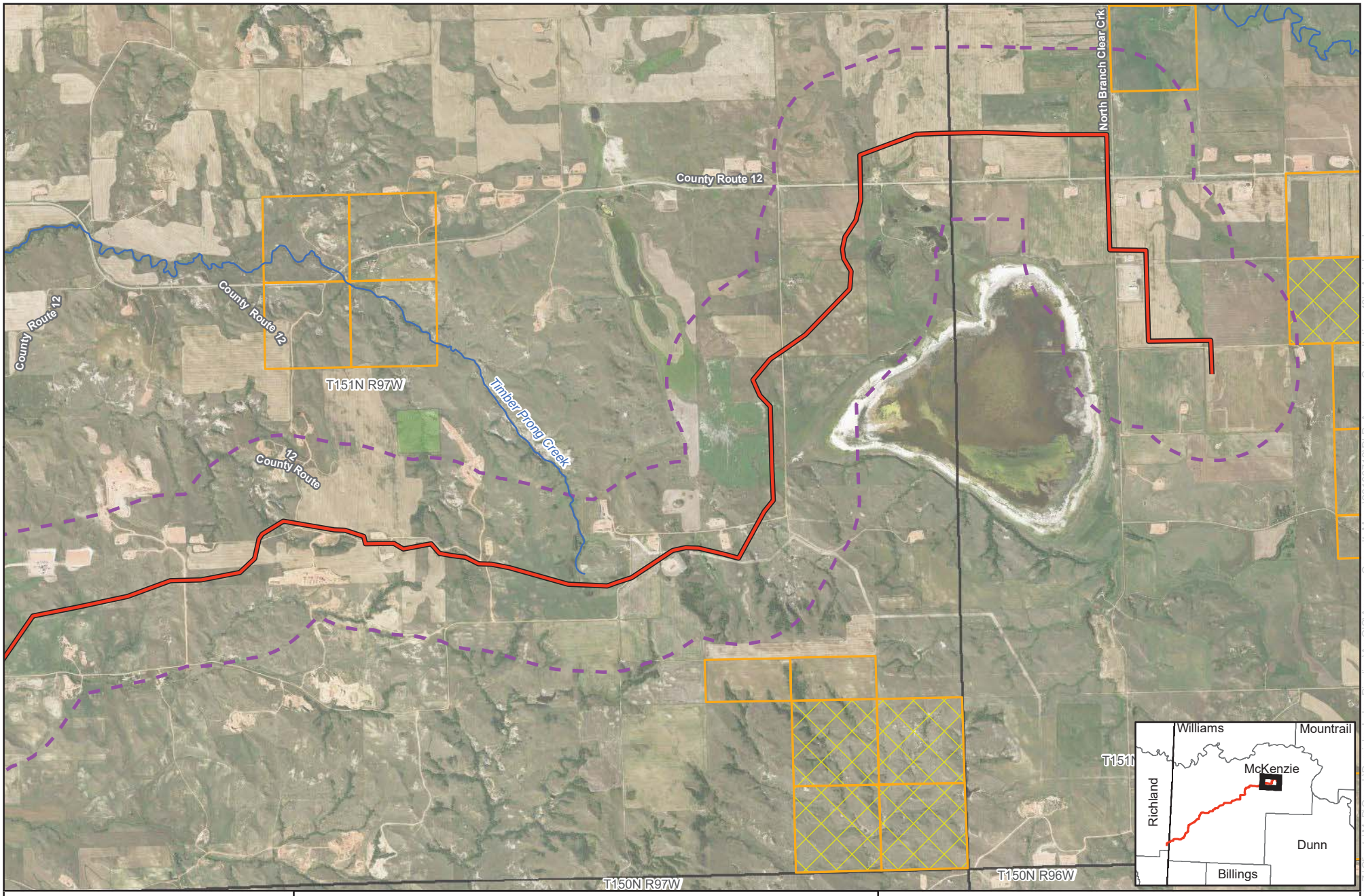
ONEOK
Demicks Lake Pipeline Project
Project Location Map
McKenzie County, ND and Richland County, MT

Proposed Pipeline

National Grassland

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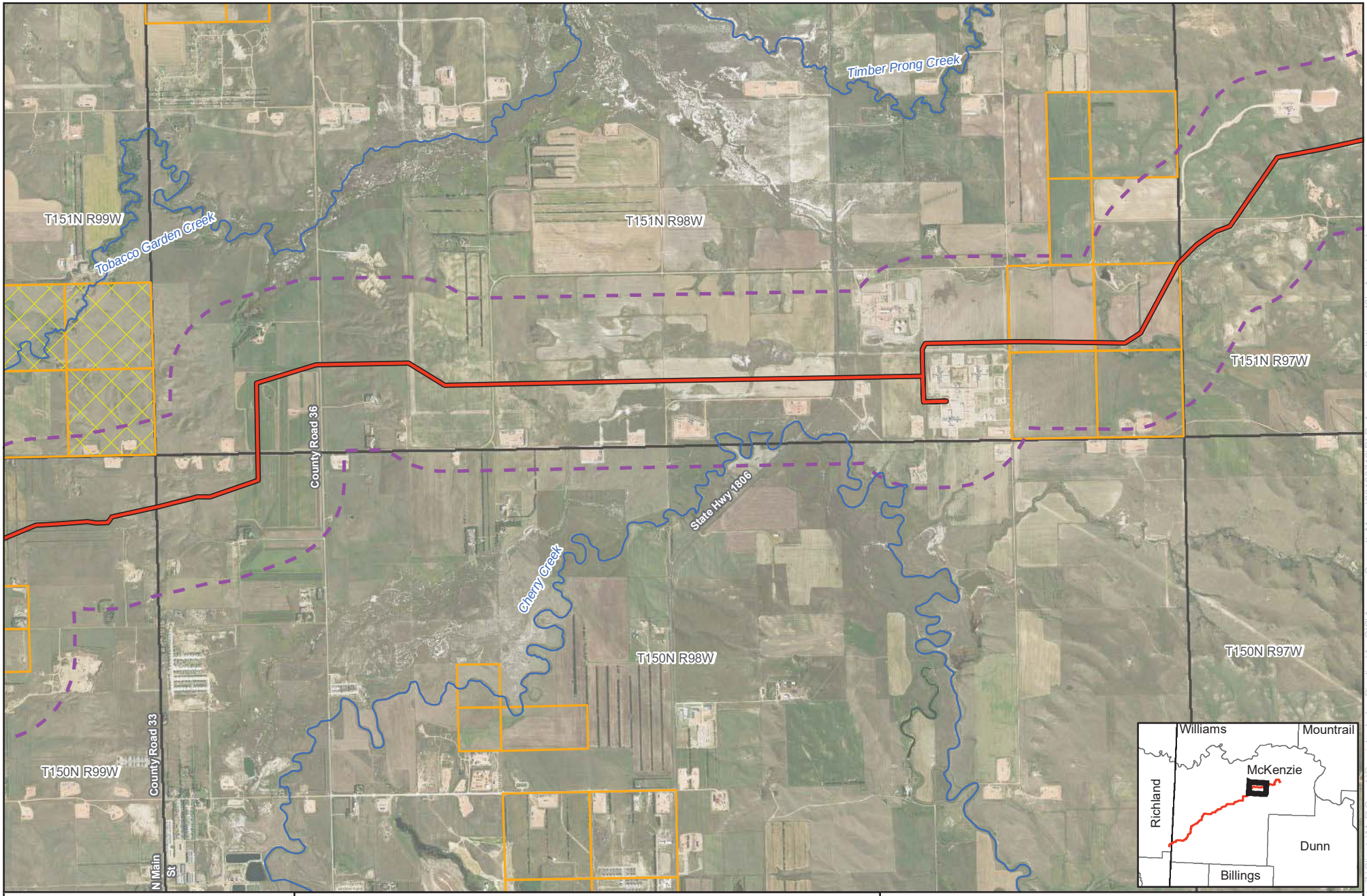
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Demicks Lake Pipeline Project
Aerial Map
McKenzie County, ND

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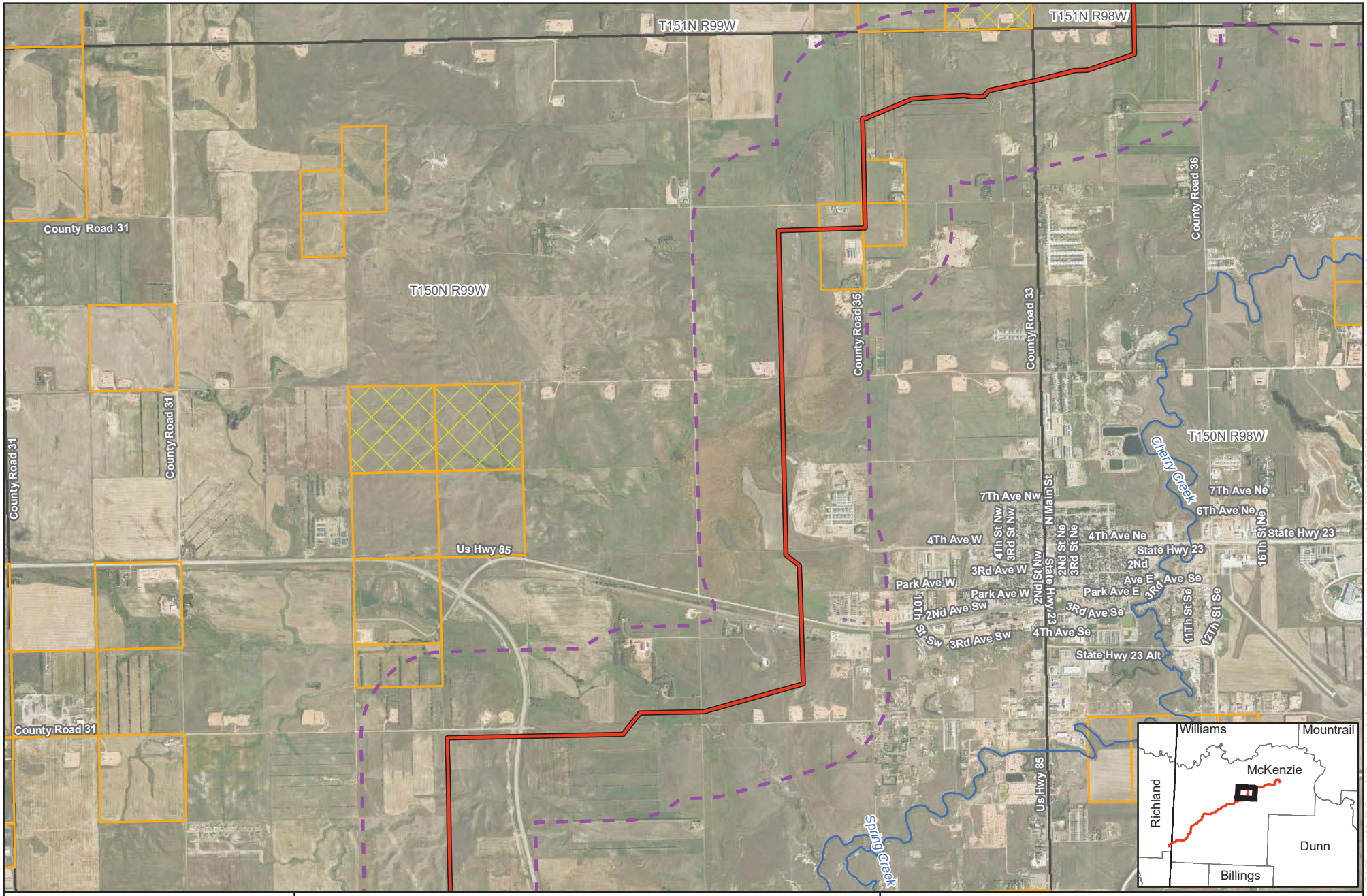
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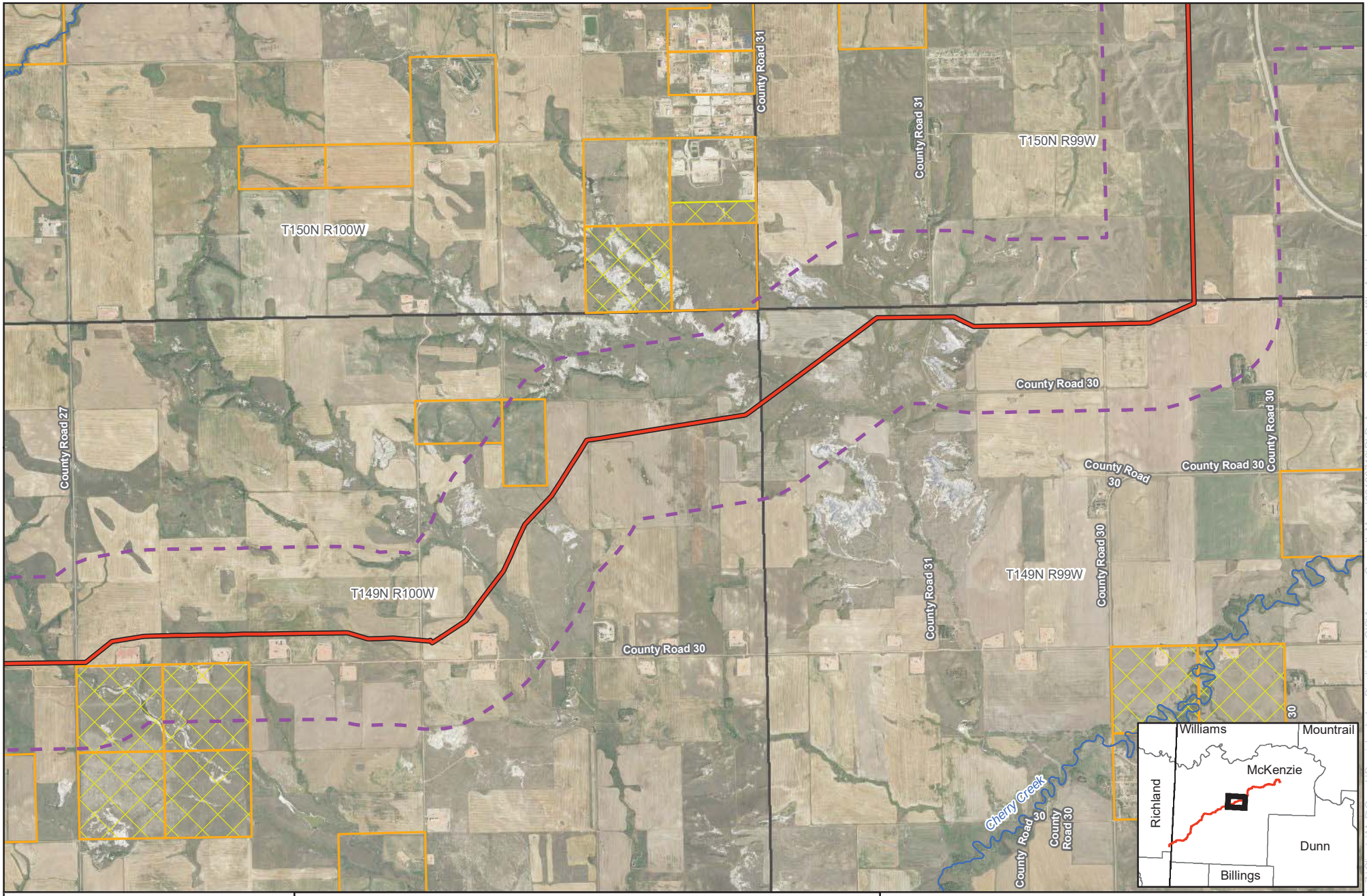
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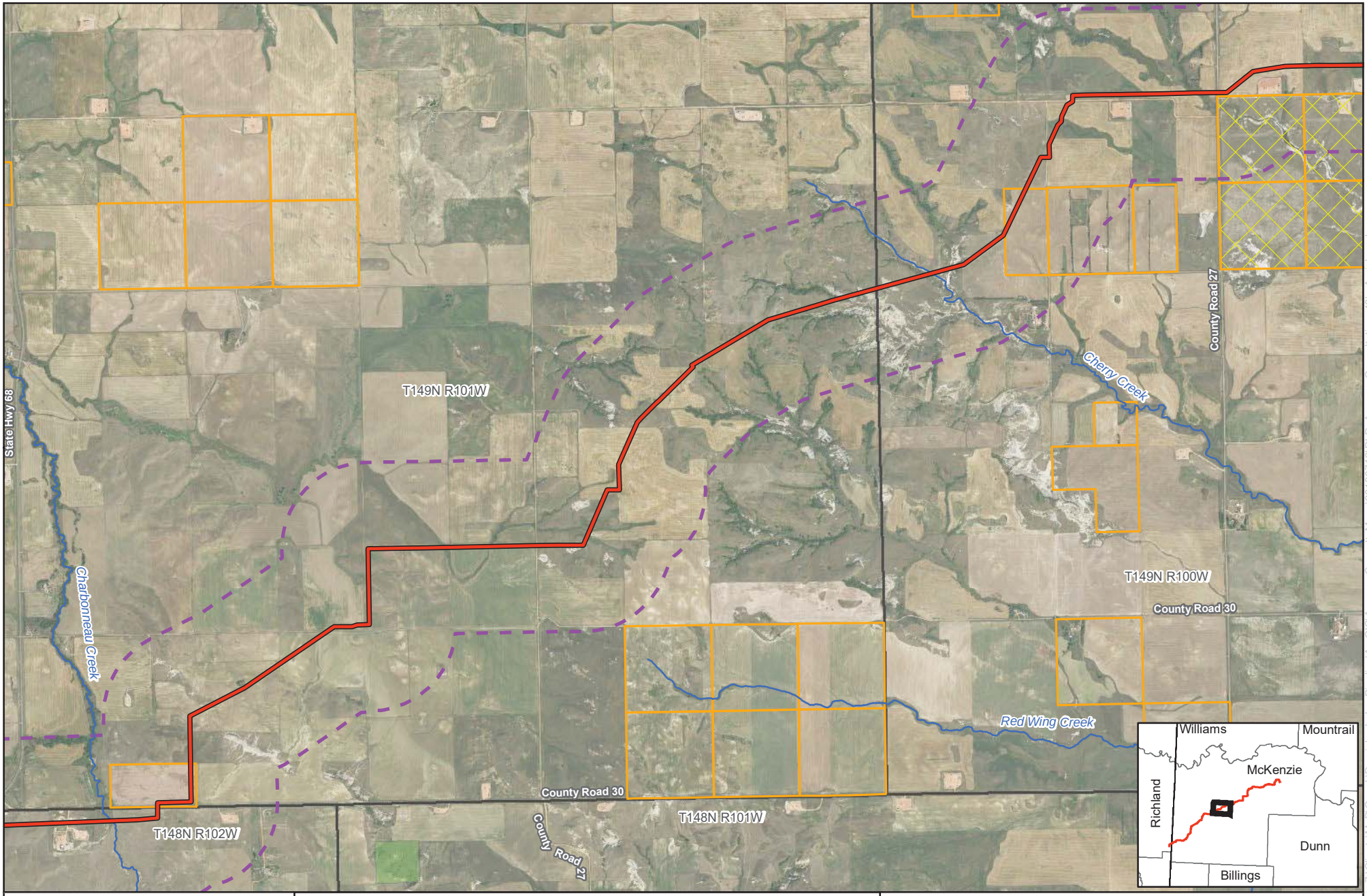
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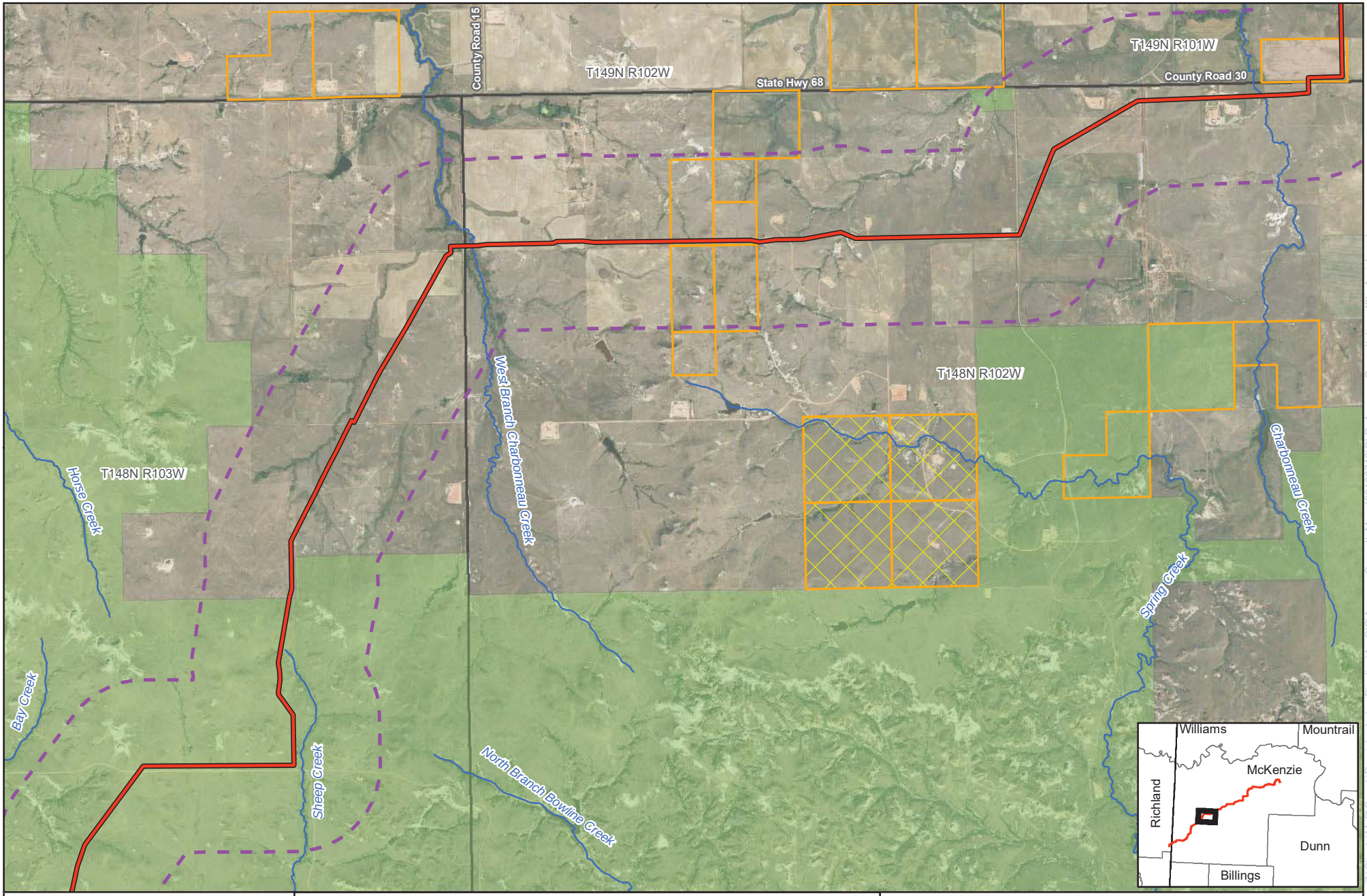
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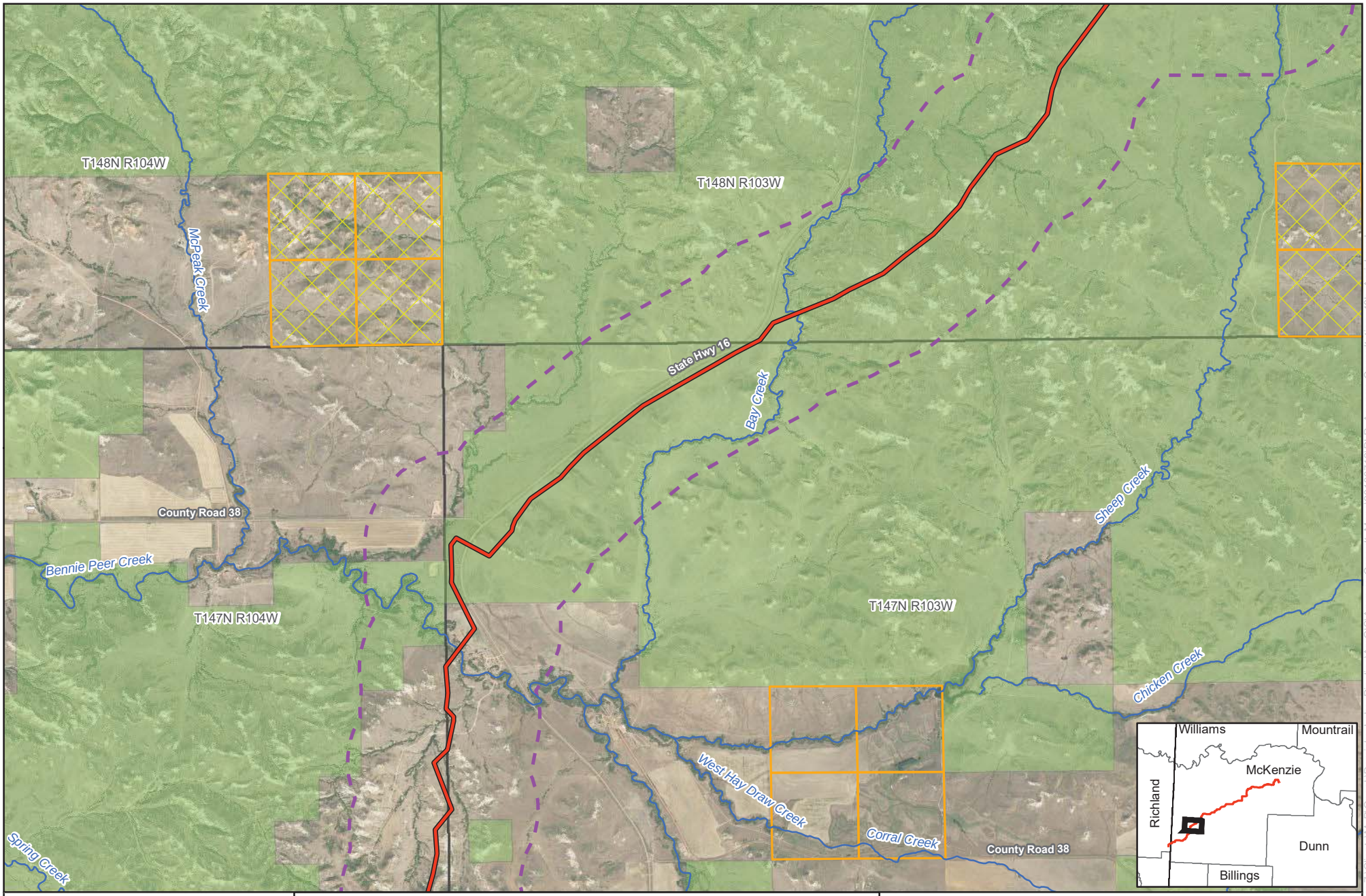
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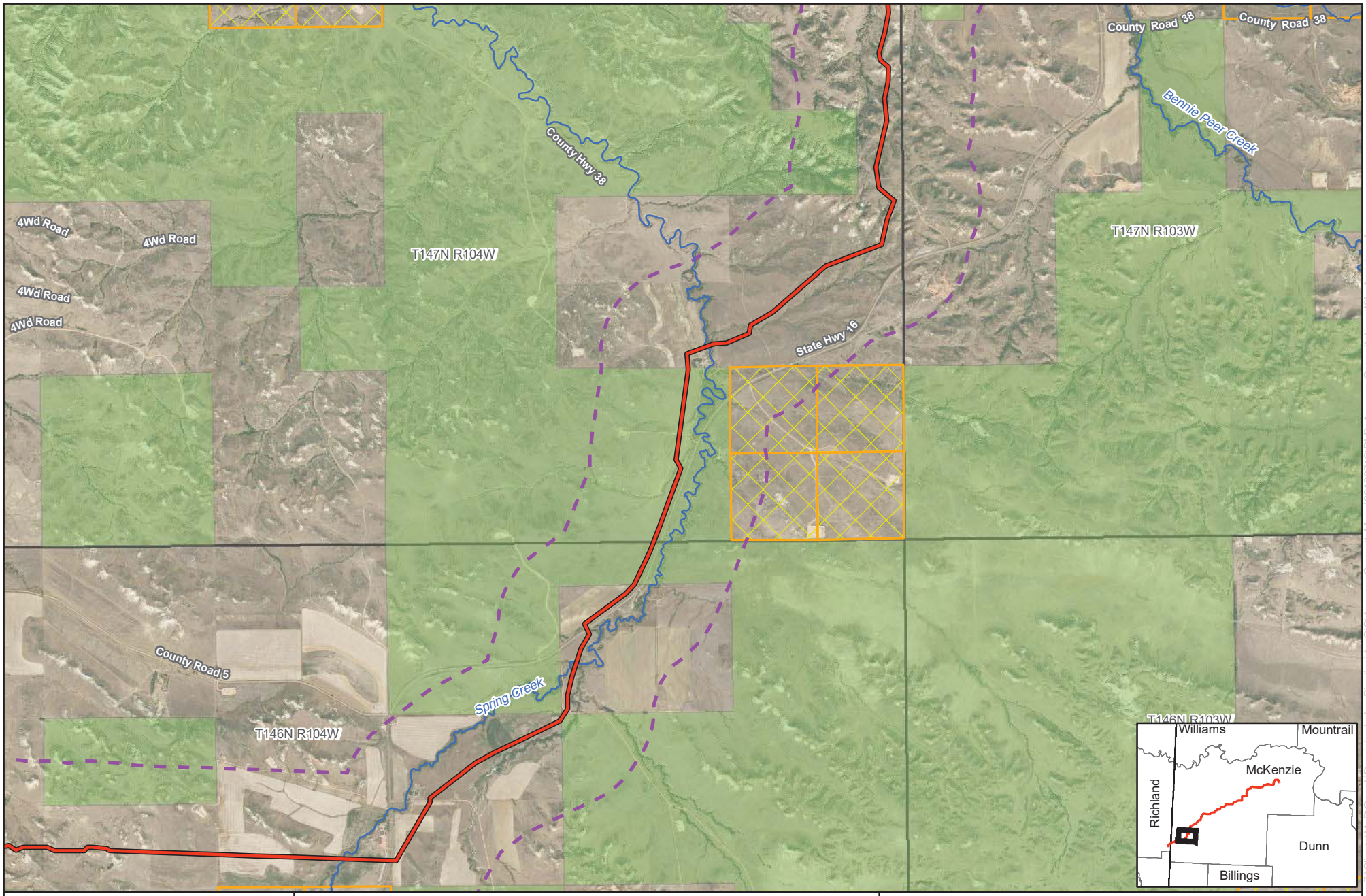
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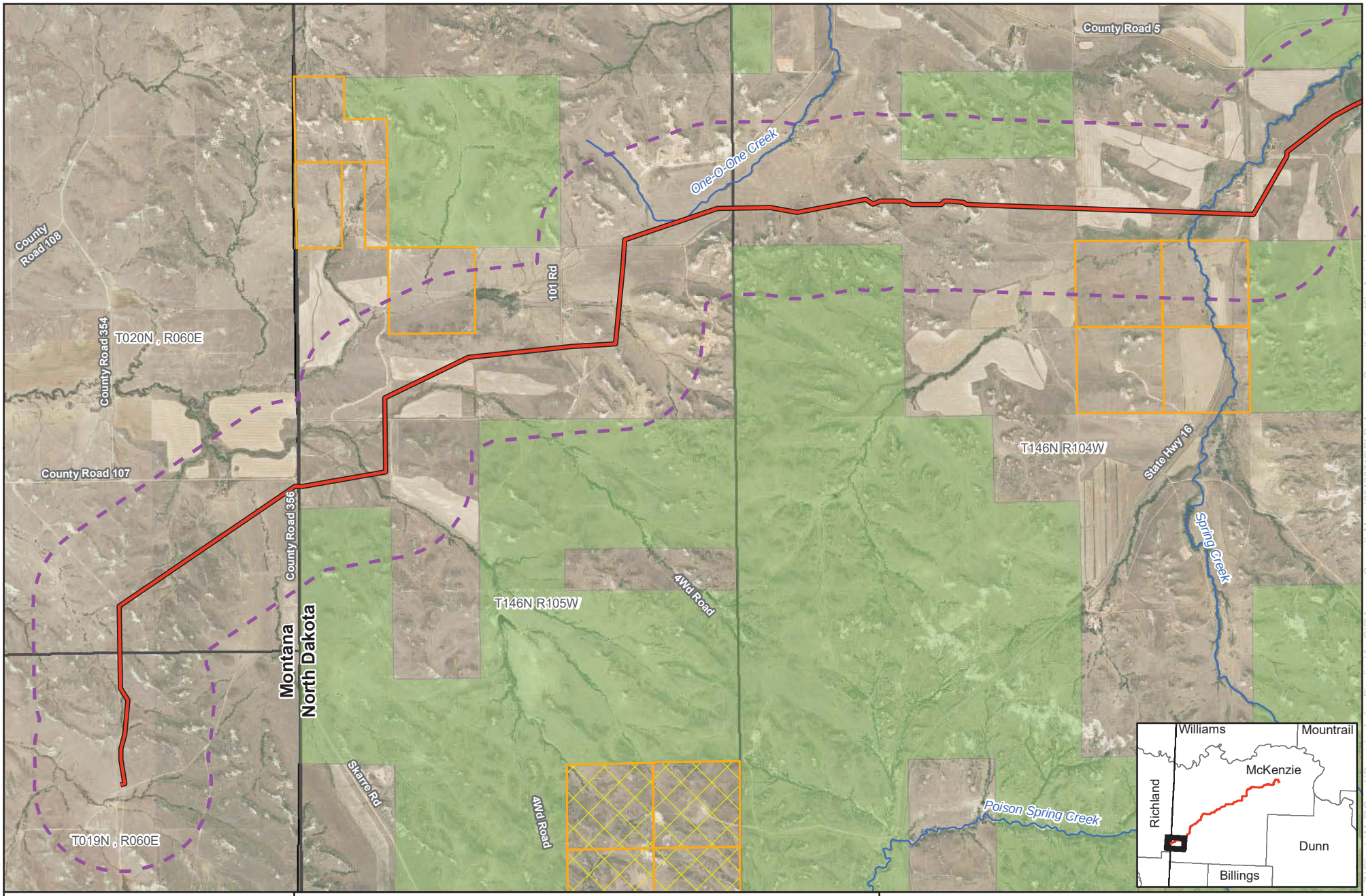
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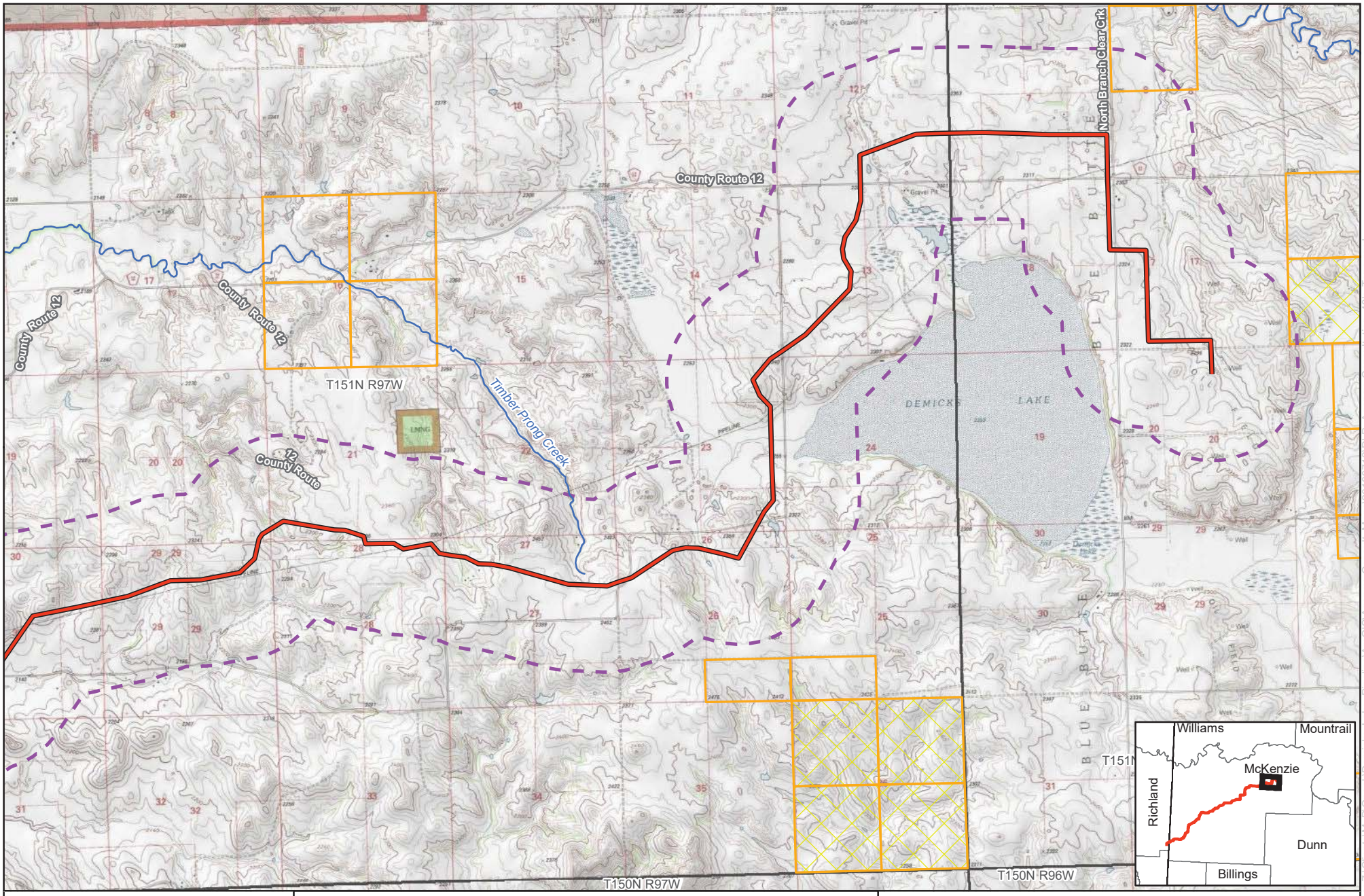
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ONEOK
Demicks Lake Pipeline Project
Aerial Map
McKenzie County, ND and Richland County, MT

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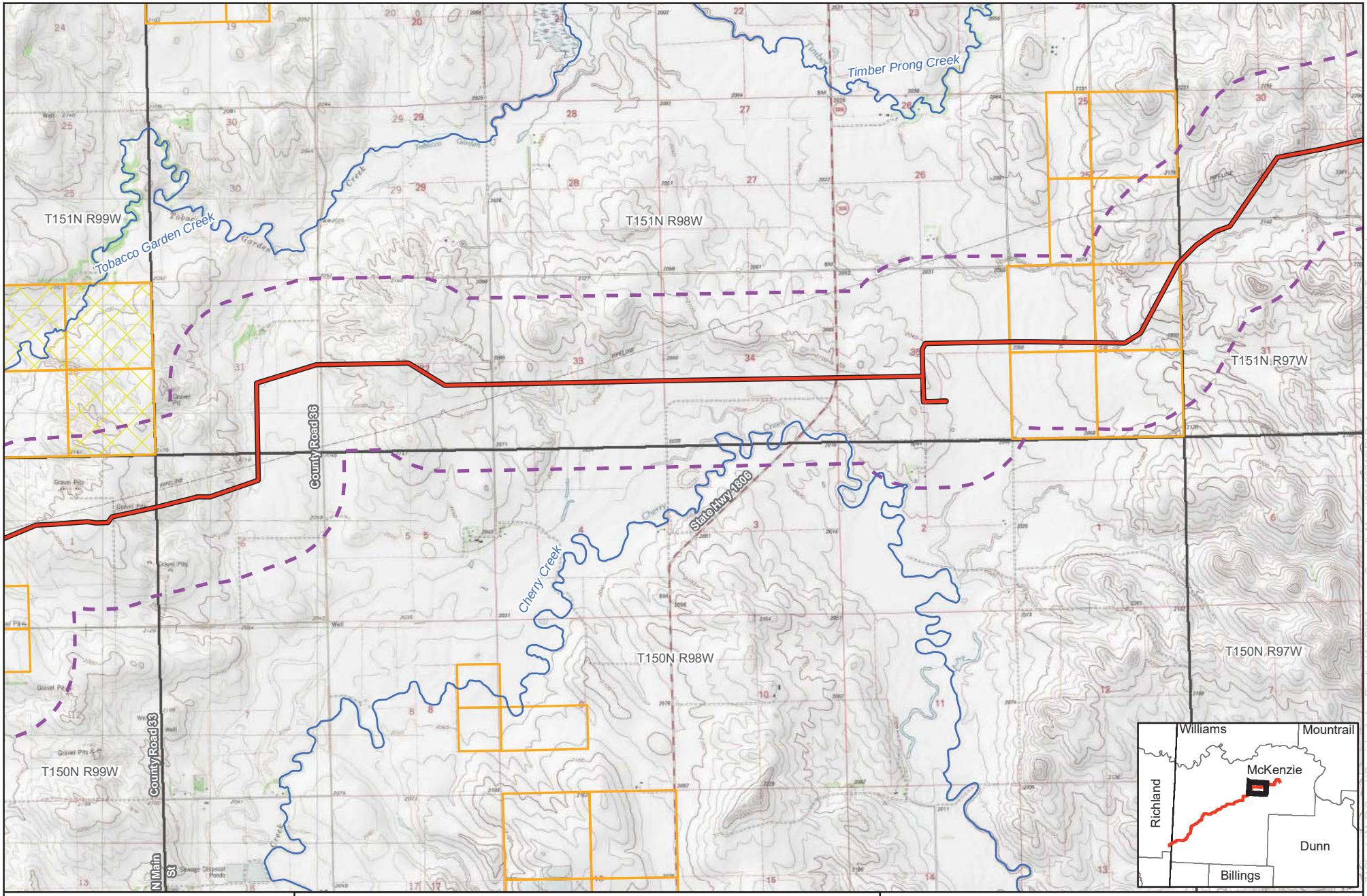
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ONEOK
Demicks Lake Pipeline Project
Topo Map
McKenzie County, ND

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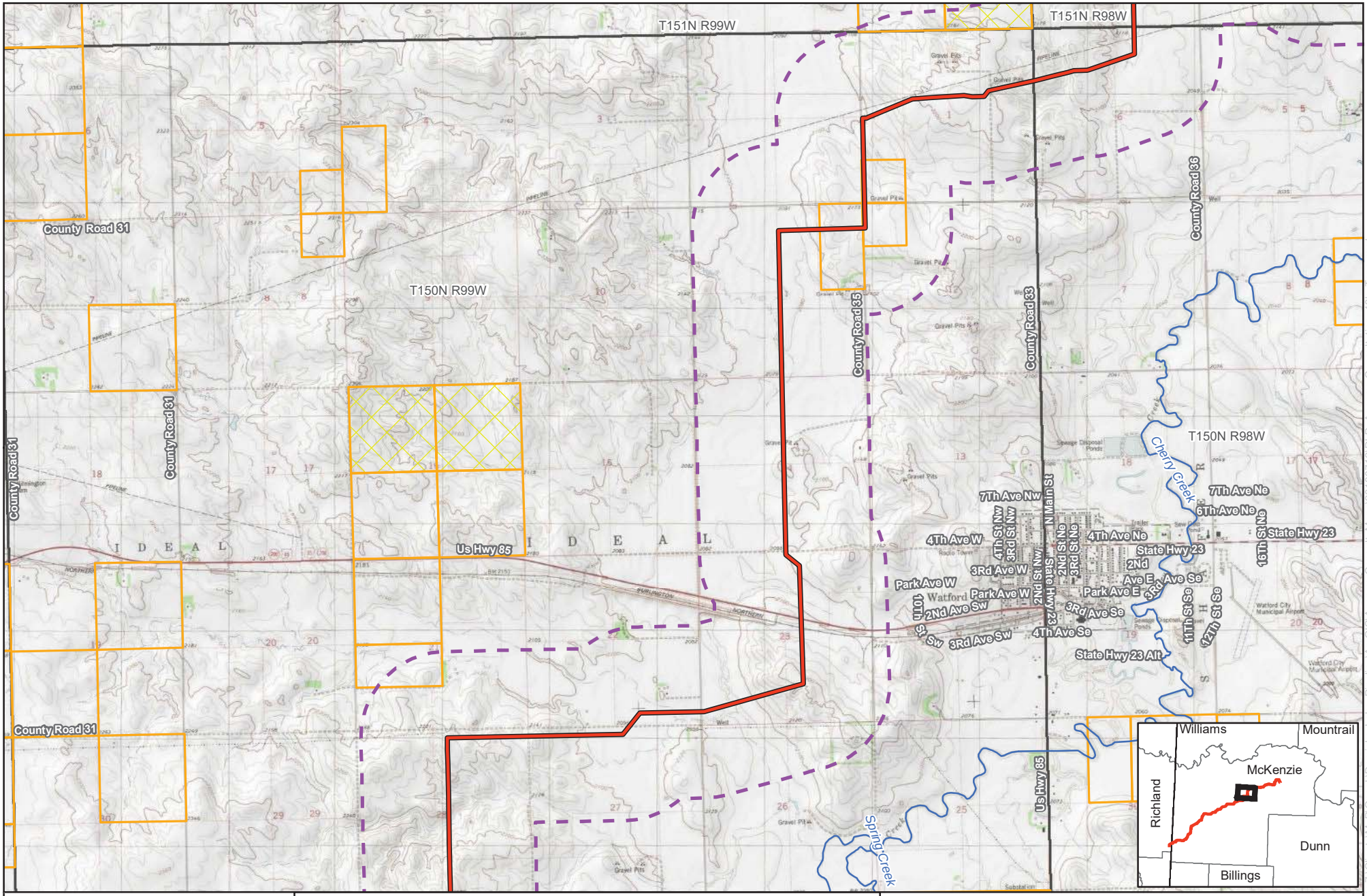
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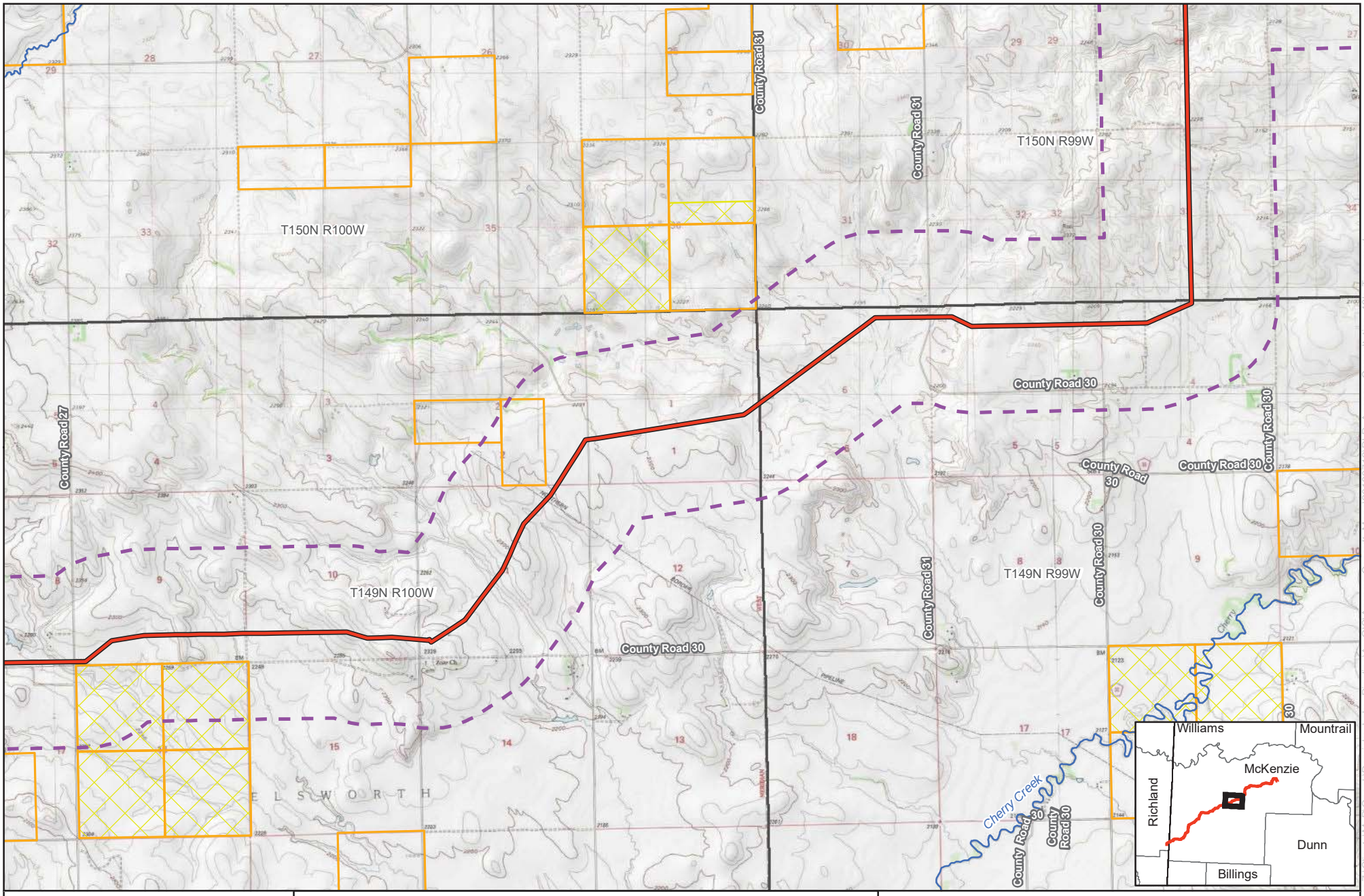
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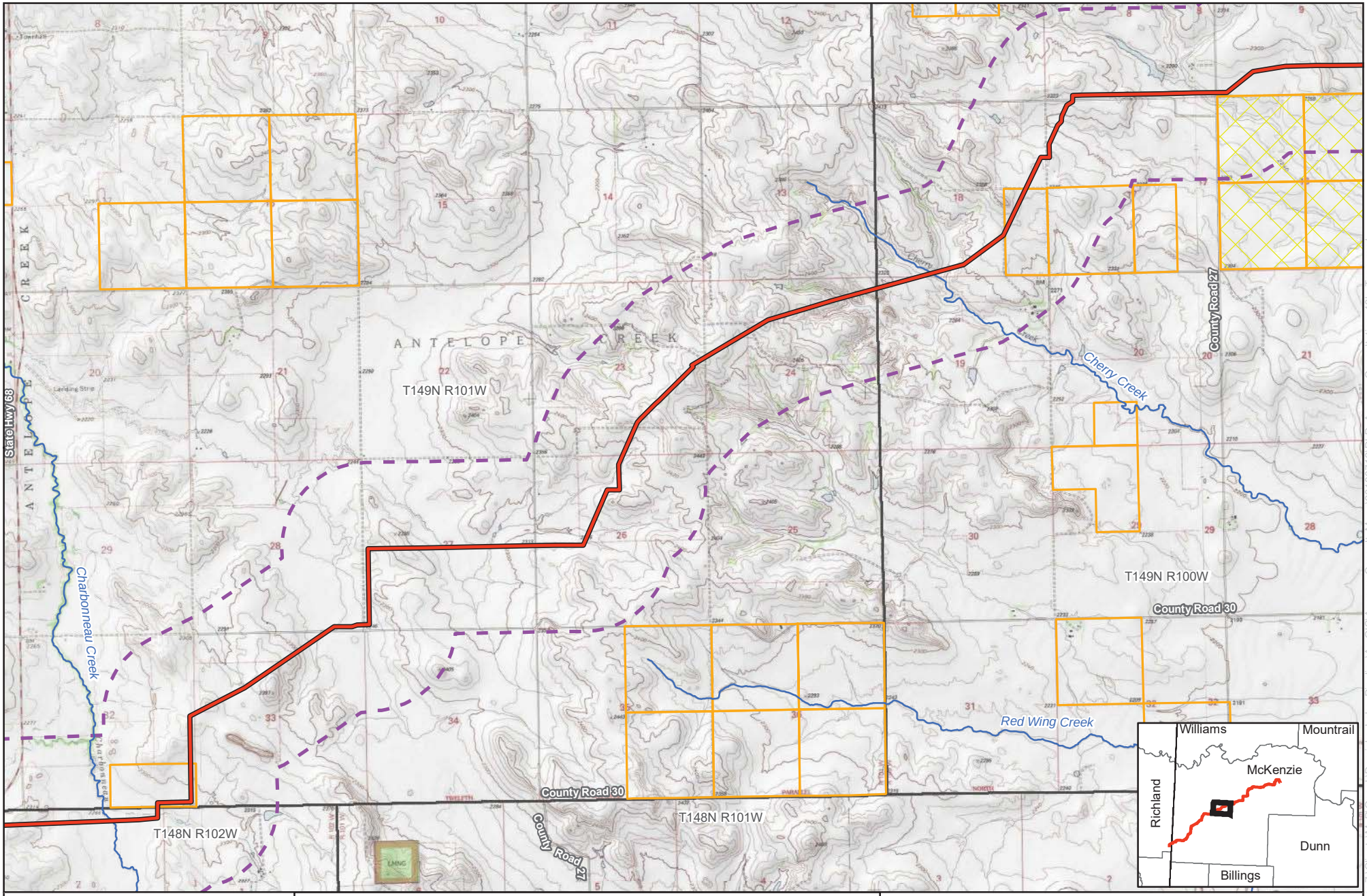
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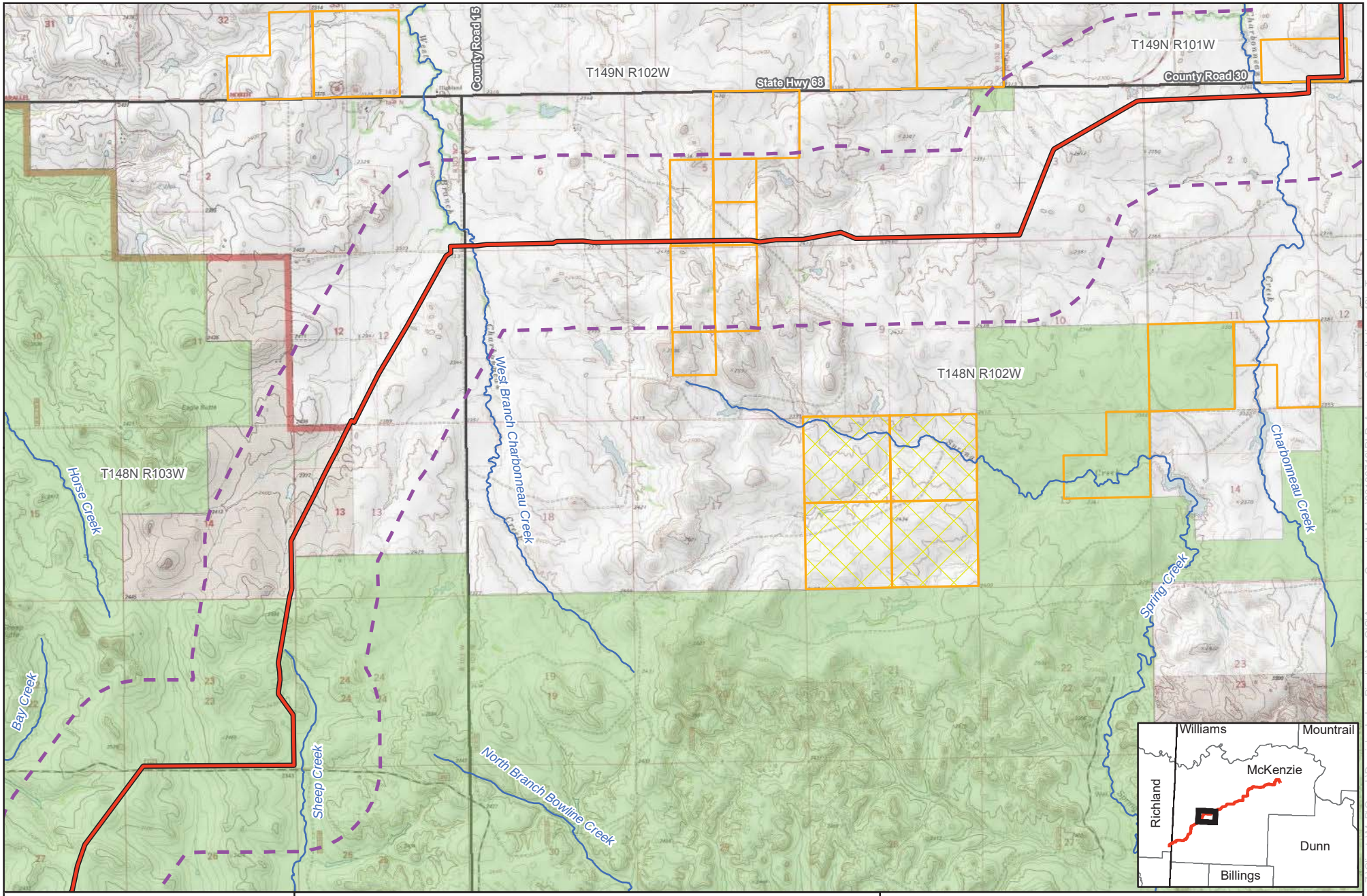
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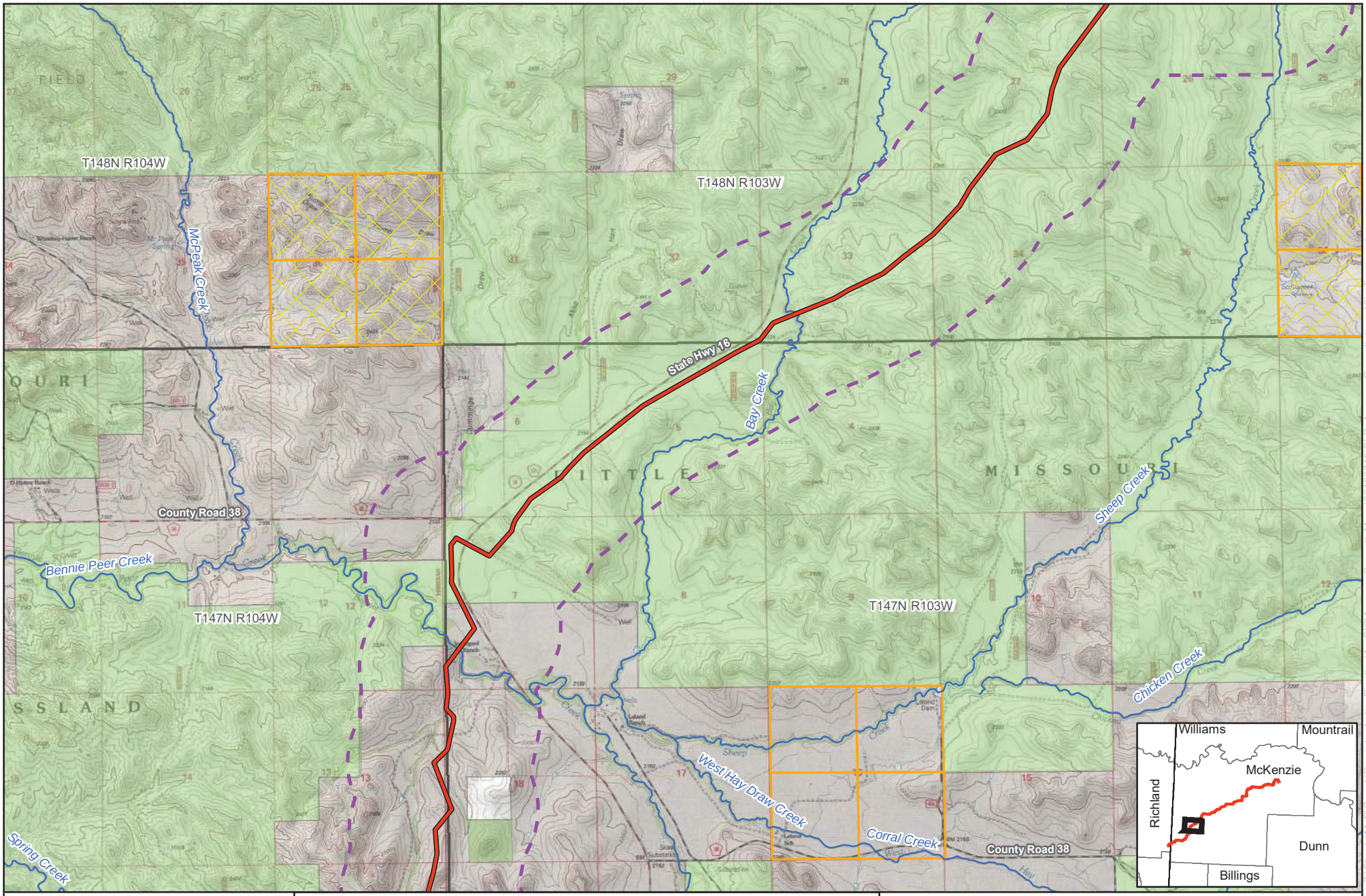
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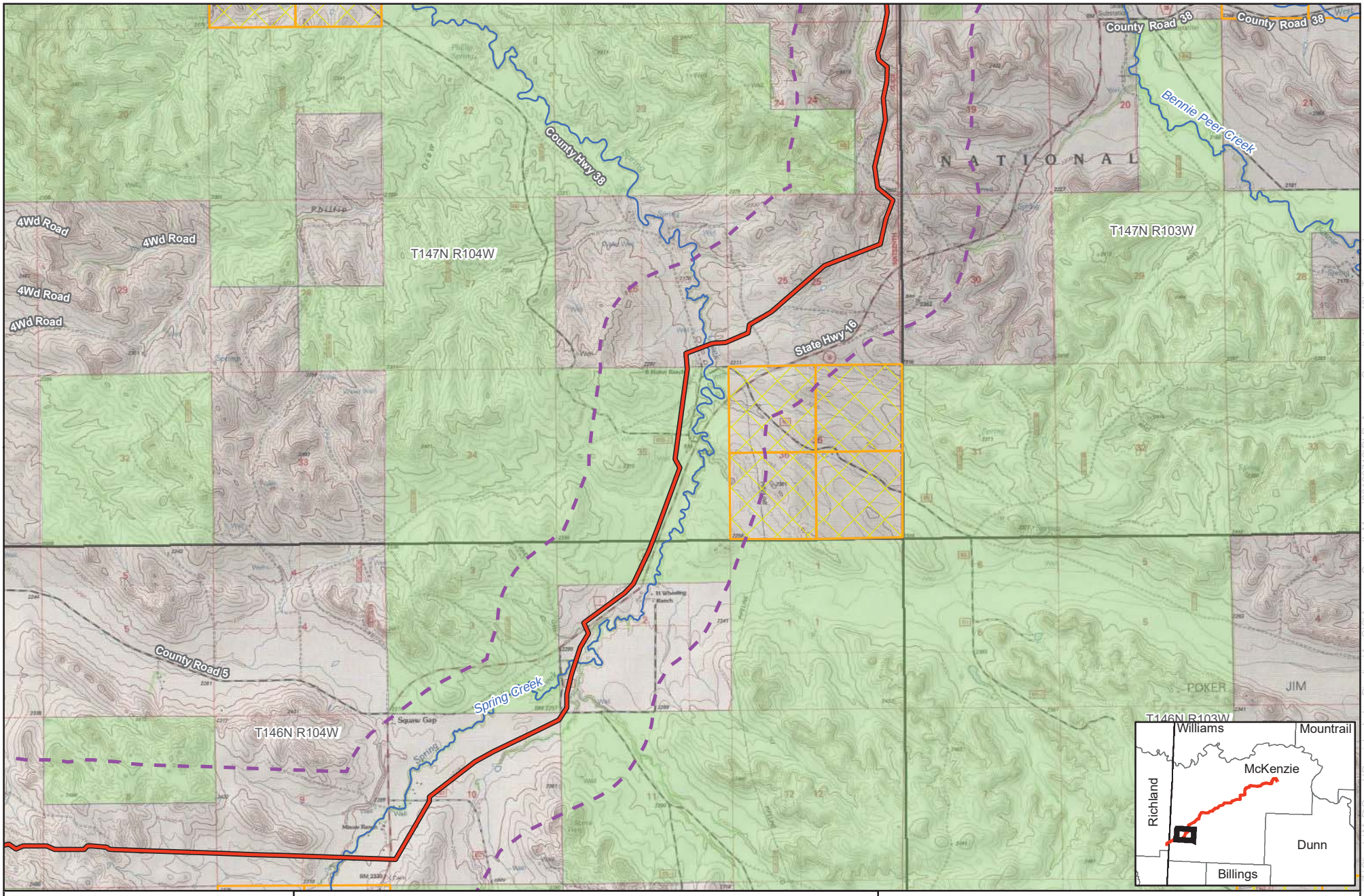
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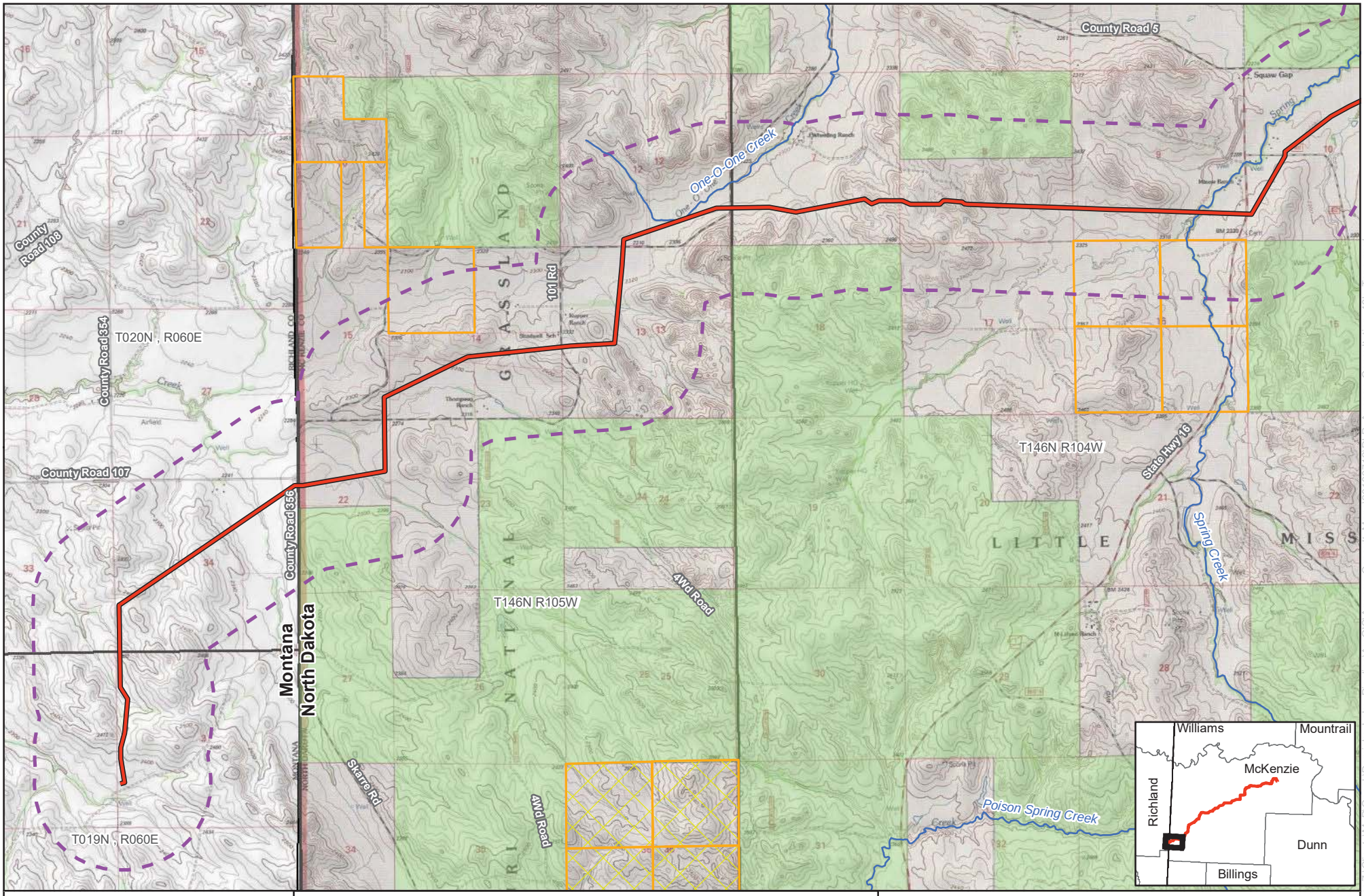
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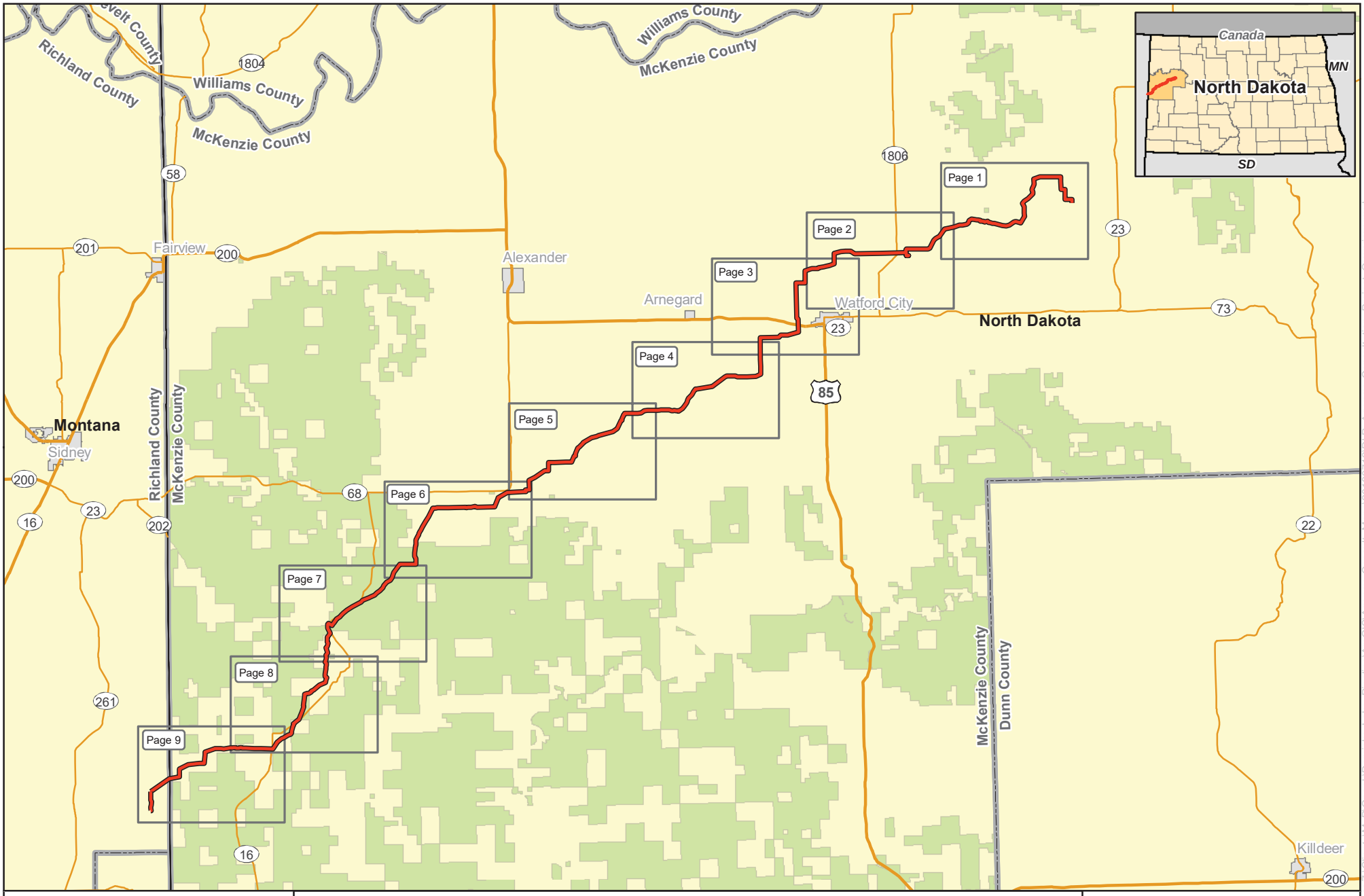
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1 inch = 7 miles

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Date: (7/31/2018)

U.S. Forest Service

Official Response Pending – Consultations Between ONEOK and USFS have been Ongoing Since Project Onset

U.S. Fish and Wildlife Service

Official Response Pending – Consultations Between ONEOK and USFS have been Ongoing Since Project Onset

May 21, 2018

Mr. Kevin Shelley
U.S. Fish and Wildlife Service
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Introduction and Review Request

Dear Mr. Shelley,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 75 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates at the common location of a planned measurement facility in Richland County, Montana, for an NGL transmission pipeline project of a ONEOK affiliate and an existing ONEOK pipeline (see enclosed Project location maps).

Construction will consist of a 110-foot-wide (110') construction right-of-way. This work space is used for temporary excavated soil storage and staging, pipeline assembly, and related equipment. The construction right-of-way will consist of a 50-foot-wide permanent easement for the Project and an additional 60 feet (60') of temporary workspace adjacent to the permanent easement. More than 75 percent of the route is collocated with an existing ONEOK pipeline; in these areas a portion of the planned permanent easement will overlap the existing ONEOK easement by 25 feet (25'). Additionally, there will be extra temporary work space areas to facilitate low-impact feature crossings including roads, wetland/waterbody crossings, underground line crossings, and storage of excess soil at side-cut topographic features. Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way and/or related tree and shrub mitigation will continue as necessary.

The enclosed Project maps depict the pipeline route and a one-mile-wide evaluation corridor. The Townships, Ranges, and Sections crossed by the Project in North Dakota are presented in Table 1.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location in North Dakota		
Township	Range	Sections
146 North	104 West	2, 7-11
146 North	105 West	12-15, 22
147 North	103 West	5-7, 18
147 North	104 West	13, 24-26, 35
148 North	102 West	2-6
148 North	103 West	1, 12-14, 23, 26, 27, 32-34
149 North	99 West	4-6
149 North	100 West	1, 2, 8-11, 17-19
149 North	101 West	23, 24, 26, 27, 32, 33
150 North	98 West	6
150 North	99 West	1, 2, 11, 14-16, 21, 28, 33
151 North	96 West	7, 17, 18, 20
151 North	97 West	12-14, 23, 26-31
151 North	98 West	31-36

This letter is intended to introduce you to the Project, request confirmation of the threatened and endangered species identified within the Project area (see Table 2), and solicit comments on the species, their habitats, or designated critical habitat areas that may occur in McKenzie County. We would also appreciate your review and comments regarding migratory birds and eagles as they relate to the proposed construction activities. In addition, ONEOK has reviewed public records and did not identify any USFWS-managed lands such as Waterfowl Production Areas or wetland and grassland easements in the Project area. ONEOK requests confirmation that no USFWS-managed lands or easements are located in the Project area, or notification of their locations within the Project area.

Table 2 USFWS Federally Listed Threatened, Endangered, Proposed, and Candidate Species Potentially Present in the Demicks Lake Pipeline Project Area[1]		
Scientific Name	Common Name	Status
Myotis septentrionalis	Northern long-eared bat	Threatened
Canis lupus	Gray wolf	Endangered
Scaphirhynchus albus	Pallid sturgeon	Endangered
Charadrius melodus	Piping plover	Threatened
Sterna antillarum	Least tern	Endangered
Calidris canutus rufa	Red knot	Threatened
Grus americana	Whooping crane	Endangered
Hesperia dacotae	Dakota skipper	Threatened

[1] Information for Planning and Conservation (IPaC). USFWS website. Available at https://ecos.fws.gov/ipac/. Accessed May 2018.

Merjent, Inc. (Merjent) is assisting ONEOK with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies, including the U. S. Forest Service. Merjent will also be coordinating natural resource surveys of the proposed Project work areas in summer 2018; survey reports will be submitted to your agency once complete. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications. Transmission line status places the Project under the jurisdiction of the North Dakota Public Service Commission and your response will be included in ONEOK's application for a Certificate of Corridor and Route Permit.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Andrea Sampson of Merjent at 612-226-1331 or asampson@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Eddie Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps

cc: Maddy Krumwiede, Merjent, Inc.
Andrea Sampson, Merjent, Inc.

August 1, 2018

Mr. Kevin Shelley
U.S. Fish and Wildlife Service
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Update and Map Revision

Dear Mr. Shelley,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) submitted a consultation request to your attention in early June 2018 soliciting comments on its proposed Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK Rockies Midstream, L.L.C.'s planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline.

The original consultation letter requested review of the Project route and a one-mile-wide evaluation corridor associated with the route. Since the original consultation was submitted, ONEOK has refined the route, and one route modification falls outside of the original one-mile-wide evaluation corridor in North Dakota. As such, we are providing an updated mapset for your review. A table displaying Sections, Townships, and Ranges within the current evaluation corridor is presented below.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

This letter is intended request confirmation of the threatened and endangered species identified within the Project area (see Table 2), and solicit comments on the species, their habitats, or designated critical habitat areas that may occur in McKenzie County. We would also appreciate your review and comments regarding migratory birds and eagles as they relate to the proposed construction activities. In addition, ONEOK has reviewed public records and did not identify any U. S. Fish and Wildlife Service (USFWS)-managed lands such as Waterfowl Production Areas or wetland and grassland easements in the Project area. ONEOK requests confirmation that no USFWS-managed lands or easements are located in the Project area, or notification of their locations within the Project area.

Table 2 USFWS Federally Listed Threatened, Endangered, Proposed, and Candidate Species Potentially Present in the Demicks Lake Pipeline Project Area[1]		
Scientific Name	**Common Name**	**Status**
Myotis septentrionalis	Northern long-eared bat	Threatened
Canis lupus	Gray wolf	Endangered
Scaphirhynchus albus	Pallid sturgeon	Endangered
Charadrius melodus	Piping plover	Threatened
Sterna antillarum	Least tern	Endangered
Calidris canutus rufa	Red knot	Threatened
Grus americana	Whooping crane	Endangered
Hesperia dacotae	Dakota skipper	Threatened

[1] *Information for Planning and Conservation (IPaC). USFWS website. Available at https://ecos.fws.gov/ipac/. Accessed May 2018.*

Merjent, Inc. (Merjent) is assisting ONEOK with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies, including the U. S. Forest Service (USFS). ONEOK has also submitted similar a consultation letter to the USFWS Montana Field Office. Merjent will also be coordinating natural resource surveys of the proposed Project work areas in summer 2018; survey reports will be submitted to your agency once complete. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

ONEOK will continue to communicate with the USFWS to ensure any Project action does not adversely affect a listed species or critical habitat. Additionally, ONEOK will continue to work with the USFS and all other applicable agencies to ensure continued collaboration with USFWS regulations and determinations.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Andrea Sampson of Merjent at 612-226-1331 or asampson@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic based Route Maps

Cc: Maddy Krumwiede, Paul Hartzheim, and Andrea Sampson, Merjent

U.S. Army Corps of Engineers

Lucas Bicknell

From: Renschler, Jason J CIV USARMY CENWO (US) <Jason.J.Renschler@usace.army.mil>
Sent: Thursday, August 16, 2018 11:17 AM
To: Paul Hartzheim
Cc: McQueary, Patricia L CIV USARMY CENWO (US); Zedaker, Edwin F.; Maddy Krumwiede; Lucas Bicknell
Subject: RE: ONEOK Demicks Lake Pipeline: Consultation follow-up

Follow Up Flag: Follow up
Flag Status: Flagged

Morning Paul – I did check with the real-estate staff and did confirm that the current proposed route does not include any Section 408 Civil Works projects. If changes are made on the proposed alignment, that determination may change. Thanks, Jason.

From: Paul Hartzheim [mailto:phartzheim@merjent.com]
Sent: Wednesday, August 15, 2018 1:59 PM
To: Renschler, Jason J CIV USARMY CENWO (US) <Jason.J.Renschler@usace.army.mil>
Cc: McQueary, Patricia L CIV USARMY CENWO (US) <Patricia.L.Mcqueary@usace.army.mil>; Zedaker, Edwin F. <Edwin.Zedaker@oneok.com>; Maddy Krumwiede <mkrumwiede@merjent.com>; Lucas Bicknell <lbicknell@merjent.com>
Subject: [Non-DoD Source] ONEOK Demicks Lake Pipeline: Consultation follow-up

Hi Jason,

In today's mail, I received a copy of the attached letter which you sent in response to the recent consultation request sent by ONEOK Bakken Pipeline, L.L.C. (ONEOK) for their proposed Demicks Lake Pipeline Project. As noted in the original consultation request, the Project is under the jurisdiction of the North Dakota Public Service Commission (NDPSC), and we are soliciting comments to assist in our application to the NDPSC. Merjent is providing environmental consulting services to ONEOK for the Project.

On behalf of ONEOK, I am following up to confirm if there are any Section 408 Civil Works projects within the one-mile evaluation corridor for the project. If so, we are requesting information on these projects, as well as a summary of the permit process that would need to be followed. For your convenience, I have attached a copy of the original consultation package, which provides PLSS data and maps displaying the location of the Project. Shapefiles can be provided as well, if you prefer.

Please let me know if you have any questions on this material. I look forward to your response.

Regards,
Paul Hartzheim



Paul Hartzheim

TractorWorks Building
800 Washington Avenue N.
Suite 315

612.746.3660 main
612.746.1618 direct
612.845.1641 cell

Minneapolis, MN 55401 612.746.3679 fax
Blockedwww.merjent.com phartzheim@merjent.com

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504-7565

August 10, 2018

NWO-2018-1420-BIS

COPY

Mr. Edwin Zedaker
ONEOK, Inc.
100 West Fifth Street
Tulsa, Oklahoma 74103

Dear Mr. Zedaker:

This is in response to your letter dated August 1, 2018, requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments on the proposed Demicks Lake NGL's Pipeline Project. The project is located within McKenize County North Dakota and terminates in Richland County, Montana.

Corps Regulatory Offices administers Section 404 of the Clean Water Act. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in waters of the United States.

Enclosed for your information is the fact sheet for Nationwide Permit 12, Utility Line Activities. Utility lines are already authorized by Nationwide Permit 12 provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and Section 401 Water Quality Certification. On Tribal Lands, Water Quality Certification is denied for all Nationwide Permits. Applicants must work with EPA to obtain individual water quality certification. Please note the pre-construction notification requirements listed on pages 2 and 3 of the enclosed fact sheet. If a project includes any one of the listed notification requirements, the project proponent must submit a DA application. Furthermore, a project must also be in compliance with the General and Regional Conditions for the Nationwide Permit.

In the event your project requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit would be required. A project that requires a Standard or Individual Permit is more intensely reviewed and would require the issuance of a public notice.

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If the project requires submitting of a Section 404 permit application, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 3319 University Drive, Bismarck, North Dakota 58504 or to the email address below. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

The North Dakota Regulatory office can also accept electronic submissions to the following email: CENWO-OD-RND@usace.army.mil.

If we can be of further assistance or should you have any questions regarding the Corps Regulatory program, please do not hesitate to contact this office by letter of phone at (701) 255-0015.

Sincerely,

Jason Renschler
Regulatory Project Manager
North Dakota

Enclosures
- ENG Form 4345
- Fact Sheet NWP #12

CF: Merjent (Attn: P. Hartzheim and M. Krumwiede)

FACT SHEET
NATIONWIDE PERMIT 12
(2017)

UTILITY LINE ACTIVITIES

Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project. Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A ''utility line'' is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term ''utility line'' does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area. Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.
Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities. Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.
Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non- tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or

geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows. This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit. This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre- construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.
Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10- acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.) (Sections 10 and 404)

Note 1: Where the utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 6: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 7: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 8: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, ''District Engineer's Decision.'' The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.
(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements.

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas.

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas.

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds.

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material.

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes.

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects from Impoundments.

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows.

To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains.

The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment.

Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls.

Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills.

Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance.

Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project.

The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers.

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.
(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.
(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights.

No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species.

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will

directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which ''may affect'' a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre- construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity ''may affect'' or will have ''no effect'' to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non- Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have ''no effect'' on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species- specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the ''take'' of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with ''incidental take'' provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word ''harm'' in the definition of ''take'' means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district

engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.
(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide Web pages at http://www.fws.gov/ or http:// www.fws.gov/ipac and http:// www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles.

The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether ''incidental take'' permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties.

(a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.
(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought

from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.
(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non- Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/ THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. <u>Discovery of Previously Unknown Remains and Artifacts.</u>

If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid

construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters.

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.
(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.
(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation.

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:
(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).
(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.
(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre- construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre- construction notification, the district engineer may determine on a case-by- case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.
(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult- to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.
(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2- acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.
(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee- responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.
(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures.

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality.

Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically for North Dakota, the North Dakota Department of Health has denied water quality certification for all projects proposed to affect Class 1 and 1A, II and Class III rivers and streams or classified lakes listed in Appendices I and II of the standards, individual certification must be obtained. For project proposed to affect any other waters, the North Dakota Department of Health has issued water quality certification provided the attached Construction and Environmental Disturbance Requirements are followed. The Standards may be found at*
http://www.legis.nd.gov/information/acdata/pdf/33-16-02.1.pdf?2016031115632
On Tribal Lands, Water Quality Certification is denied for all Nationwide Permits. Applicants must work with EPA to obtain individual water quality certification. Contact: USEPA, Region 8,

401 Certification Program – 8WP-AAP, 1595 Wynkoop Street, Denver, Colorado 80202-1129. (303-312-6909)

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions.

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits.

The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications.

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

> When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.
>
> _____ (Transferee) _____ (Date)

30. Compliance Certification.

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:
(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
(c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States.

If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a ''USACE project''), the prospective permittee must submit a pre- construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division

engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is ''no effect'' on listed species or ''no potential to cause effects'' on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation,

especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act.

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the ''study river'' (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13

activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre- construction notifications to expedite agency coordination.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

2017 NATIONWIDE PERMITS
REGIONAL CONDITIONS
OMAHA DISTRICT
STATE OF NORTH DAKOTA

The following Nationwide Permit Regional Conditions will be used in the State of North Dakota. Regional conditions are placed on Nationwide Permits to ensure projects result in no more than minimal adverse impacts to the aquatic environment and to address local resource concerns.

1. **Wetlands Classified as Peatlands – Revoked for use**

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38 and 45, are revoked for use in peatlands. Peatlands are permanently or seasonally saturated and inundated wetlands where conditions inhibit organic matter decomposition and allow for the accumulation of peat. Under cool, anaerobic, and acidic conditions, the rate of organic matter accumulation exceeds organic decay.

2. **Wetlands Classified as Peatlands – Preconstruction Notification Requirement**

For Nationwide Permits 3, 5, 20, 32, 38 and 45 permittees must notify the Corps in accordance with General Condition 32 (Pre-Construction Notification) prior to initiating any regulated activity impacting peatlands.

3. **Waters Adjacent to Natural Springs – Preconstruction Notification Requirement**

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) for regulated activities located within 100 feet of the water source in natural spring areas. For purposes of this condition, a spring source is defined as any location where there is flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

4. **Missouri River, including Lake Sakakawea and Lake Oahe – Pre-construction Notification Requirement**

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity occurring in or under the Missouri River, including Lake Sakakawea and Lake Oahe. In addition, any activity occurring in an off channel area (marinas, bays, etc.) of any of these waterbodies, a preconstruction notification is required.

5. **Spawning Areas**

Spawning restrictions and important fish habitat areas, if applicable, can be accessed on the North Dakota Game & Fish Department's website at:

http://gf.nd.gov/gnf/conservation/docs/spawning-restriction-exclusions.pdf

No regulated activity within the Red River of the North shall occur between 15 April and 1 July. Spawning season restrictions do not apply to projects involving dredging or other discharges of less than 25 cubic yards of material in any jurisdictional water.

6. **Counter-Sinking Culverts and Associated Riprap – All Nationwide Permits**

In streams with intermittent or perennial flow and a stable stream bed, culvert stream crossings shall be installed with the culvert invert set below the natural streambed according to the table below. This regional condition does not apply in instances where the lowering of the culvert invert would allow a headcut to migrate upstream of the project into an unaffected stream reach or result in lowering the elevation of the stream reach.

Riprap inlet and outlet protection shall be placed to match the height of the culvert invert.

Culvert Type	Drainage Area	Minimum Distance Culvert Invert Shall Be Lowered Below Stream Flow Line
All culvert types	≤ 100 acres	Not required
Pipe diameter <8.0 ft	100 to 640 acres	0.5 ft
Pipe diameter <8.0 ft	>640 acres	1.0 ft
Pipe diameter ≥ 8.0 ft	All drainage sizes	1.0 ft
Box culvert	All drainage sizes	1.0 ft

REGIONAL CONDITIONS APPLICABLE TO SPECIFIC NATIONWIDE PERMITS

Nationwide Permit 7 – Outfall Structures and Associated Intake Structures and Nationwide Permit 12 – Utility Line Activities.

Intake Structures – Intake screens with a maximum mesh opening of ¼-inch must be provided, inspected annually, and maintained. Wire, Johnson-like, screens must have a maximum distance between wires of 1/8-inch. Water velocity at the intake screen shall not exceed ½-foot per second.

Pumping plant sound levels will not exceed 75 dB at 50 feet.

Intakes located in Lake Sakakawea, above river mile 1519, and on the Yellowstone River, are subject to the following conditions:

- The intakes shall be floating.
- At the beginning of the pumping season, the intake shall be placed over water with a minimum depth of 20 feet.
- If the 20-foot depth is not attainable, then the intake shall be located over the deepest water available.

- If the water depth falls below six feet, the intake shall be moved to deeper water or the maximum intake velocity shall be limited to ¼ foot per second.

Intakes located in Lake Sakakawea, below river mile 1519, and the Missouri River below Garrison Dam are subject to the following conditions:

- The intakes shall be submerged.
- At the beginning of the pumping season, the intake will be placed at least 20 vertical feet below the existing water level.
- The intake shall be elevated 2 to 4 feet off the bottom of the river or reservoir bed.
- If the 20-foot depth is not attainable, then the intake velocity shall be limited to ¼-foot per second with intake placed at the maximum practicable attainable depth.

Intakes and associated utility lines that are proposed to cross sandbars in areas designated as piping plover critical habitat are prohibited.

Utility Lines

- Any temporary open trench associated with utility lines are to be closed within 30 days of excavation. This time limit may be extended by notifying the North Dakota Regulatory Office and receiving a written response that the extension is acceptable.

Nationwide Permit 11 – Temporary Recreational Structures – Boat Docks

To ensure that the work or structure shall not cause unreasonable obstruction to the free navigation of the navigable waters, the following conditions are required:

- No boat dock shall be located on a sandbar or barren sand feature. The farthest point riverward of a dock shall not exceed a total length of 30 feet from the ordinary high watermark. Information Note: Issuance of this permit does not supersede authorization required by the North Dakota State Engineer's Office.
- Any boat dock shall be anchored to the top of the high bank.
- Any boat dock located within an excavated bay or marina that is off the main river channel may be anchored to the bay or marina bottom with spuds.

Section 10 Waters located in the State of North Dakota are:

Bois de Sioux River
James River
Missouri River
Red River of the North
Upper Des Lacs Lake
Yellowstone River

Nationwide Permit 13 – Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity. The notification must also include photo evidence of erosion in the area. Prohibited materials found at

http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487696/prohibited-restricted-materials.aspx cannot be used in waters of the United States.

Nationwide Permit 23 – Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity. In addition to information required by General Condition 32 (Pre-Construction Notification), permittees must identify the approved categorical exclusion that applies and provide documentation that the project fits the categorical exclusion.

GENERAL CONDITIONS (REGIONAL ADDITIONS)

General Condition 32 Notification– Pre-construction Notification

Prospective permittees should be aware that a field aquatic resources delineation may be required for applications where notification is required in accordance with General Condition 32 (Pre-Construction Notification) and/or mitigation may be required. Specific guidelines outlining the aquatic resources delineation process in the State of North Dakota and the Corps 1987 Wetland Delineation Manual and applicable Regional supplements to the Manual can be accessed on the North Dakota Regulatory Office's website at:
http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota.aspx

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

August 1, 2018

Ms. Patricia McQueary
State Program Manager
US Army Corps of Engineers – Omaha District
3319 University Street
Bismarck, ND 58504

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Ms. McQueary,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits this project information to the United States Army Corps of Engineers (USACE) to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

As indicated above, the purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

To facilitate our review, we are requesting the following information is requested:

- A review of the Project for crossings of Section 408 Civil Works projects or other USACE owned or managed lands;
- Any special requirements, restrictions, or specifications regarding constructing pipelines across or under USACE-regulated features; and
- Any permits issued through your office which may be applicable to the Project and anticipated timeframes.

ONEOK assumes the Project will be eligible for coverage under Nationwide Permit 12 (Utility Line Activities). Following completion of field surveys and after the route and associated workspaces have been identified, ONEOK will submit a Pre-Construction Notification to your office, if deemed necessary.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent
Jason Renschler, USACE

U.S Department of Agriculture - Natural Resources Conservation Service

Lucas Bicknell

From: Zedaker, Edwin F. <Edwin.Zedaker@oneok.com>
Sent: Monday, August 13, 2018 12:08 PM
To: Roel, Jeff - NRCS, Bismarck, ND
Cc: Bott, Wade - NRCS, Bismarck, ND; Bartholomay, Wendy - NRCS, Bowman, ND; Alveshere, Lloyd - NRCS, Watford City, ND; Ristvedt, Theresa M - NRCS, Bismarck, ND; Maddy Krumwiede
Subject: RE: (External) Review of USDA-NRCS easement property in McKenzie County for the proposed ONEOK pipeline project.

Jeff,
Thank you for your review and response regarding ONEOK's Demicks Lake Pipeline project.

Best,
Eddie

ONEOK

Eddie Zedaker
Environmental Engineer
ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Phone: 918-595-1783 | Cell: 256-872-5818
E-mail: Edwin.Zedaker@oneok.com

From: Roel, Jeff - NRCS, Bismarck, ND [mailto:Jeff.Roel@nd.usda.gov]
Sent: Monday, August 13, 2018 11:54 AM
To: Zedaker, Edwin F.
Cc: Bott, Wade - NRCS, Bismarck, ND; Bartholomay, Wendy - NRCS, Bowman, ND; Alveshere, Lloyd - NRCS, Watford City, ND; Ristvedt, Theresa M - NRCS, Bismarck, ND
Subject: (External) Review of USDA-NRCS easement property in McKenzie County for the proposed ONEOK pipeline project.

Good morning Mr. Zedaker,

I have been asked to review your proposed natural gas liquids pipeline right-of-way in McKenzie County for USDA-NRCS easements that would be negatively impacted by this project. Please note that McKenzie County has three Wetlands Reserve Program easements **all** situated near the confluence of the Yellowstone and Missouri Rivers in the northwest part of the county. Therefore in review of your project location map, there does not appear to be any concerns with regard to our easements.

Sincerely yours,

Jeff

Jeffrey C. Roel
Resource Conservationist
Programs and Easement Staff
Bismarck State Office
(701) 530-2033

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August 1, 2018

Lloyd Alveshere
Soil Conservationist
US Department of Agriculture
Natural Resources Conservation Service – McKenzie County
P.O. Box 583
Watford City, ND 58854

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Alveshere,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits a request for Project review from the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) regarding NRCS-administered lands and parcels enrolled in NRCS easement programs. Sections, Townships, and Ranges within a one-mile-wide "evaluation corridor" are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

U.S Department of Agriculture – Farm Service Agency

USDA

United States Department of Agriculture

Farm
Production
and
Conservation

Farm
Service
Agency

North Dakota
Farm Service Agency
1025 28th St. South
Fargo, ND 58103

PH: (701) 239-5695
FAX: (855) 813-6644

August 6, 2018

Merjent Inc.
C/O Maddy Krumwiede, PMP
Tractor Works Bldg.
800 Washington Ave N, Suite 315
Minneapolis, MN 55401

Dear Ms. Krumwiede,

This letter is in response to your August 2, 2018 email concerning the proposed Demicks Lake Pipeline Project (Project) in McKenzie County of North Dakota.

If specifically requested, FSA will provide the producer name and address information for McKenzie County producers who have received payments from various FSA programs. It would then be up to Merjent, Inc. to determine how best to use the producer name and address information provided by FSA to contact the producers and attempt to have the producers identify the location of the FSA-administered lands that may be affected by the ONEOK project.

Please note, based on your August 2, 2018 letter, it looks like we can reasonably conclude that embedded within this request is a desire to obtain FSA held geospatial information (i.e., Common Land Unit data). It must be noted that 7 U.S.C. § 8791 of the Food, Conservation and Energy Act of 2008 does prohibit FSA from disclosing the Common Land Unit (CLU) data unless Merjent, Inc. is certified as a USDA Cooperator, which it appears Merjent, Inc. is not a USDA Cooperator, or if Merjent, Inc. provides FSA with a written consent to disclose from each producer to whom the requested records pertain.

As for a request for text data, FSA is under no statutory based obligation to review the map data provided by Merjent, Inc. and evaluate the one-mile-wide corridor centered along the route of the pipeline and take steps to identify the location and identification of any lands/easements that may be enrolled in programs administered by FSA.

FSA is under no such obligation because record disclosure under FOIA is based on how the information is retained in FSA paper and electronic files. Since FSA does not retain records categorized by "approximate one-mile-wide "evaluation corridor" centered along the route of the pipeline" FSA is not required by statute to create the records in order to respond to a FOIA request.

Based on the above information, please indicate whether you want FSA to proceed with providing only the names and addresses of FSA participants who have received payments in McKenzie County. Keep in mind, the names and addresses provided to you will include FSA participants for the entire county, not just the one-mile project corridor which you requested.

USDA is an equal opportunity provider, employer and lender.

If there are any questions, please contact this office.

Sincerely,

Brad Thykeson
State Executive Director

Cc: McKenzie FSA County Office & District Director Honeyman

USDA is an equal opportunity provider, employer and lender.

August 2, 2018

Delivered via email to:
Marcy Feilmeier,
US Department of Agriculture, McKenzie County Farm Service Agency
McKenzie County Executive Director
(marcy.feilmeier@nd.usda.gov)

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Ms. Feilmeier,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits a request for Project review from the U.S. Department of Agriculture, Farm Service Agency (FSA) regarding FSA-administered lands and parcels enrolled in FSA easement programs within an approximate one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps
Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

U.S. Department of Defense

Lucas Bicknell

From: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>
Sent: Friday, August 3, 2018 8:46 AM
To: Maddy Krumwiede
Subject: RE: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

Maddy,

We have no AF assets in the project area. Thanks.

Cy Munos
Chief, Cable Affairs
91 MMXS/MMXSFK
Minot AFB, ND
DSN: 453-6053
COMM.: 701-723-6053
CELL: 701-720-8274

-----Original Message-----
From: Maddy Krumwiede [mailto:mkrumwiede@merjent.com]
Sent: Thursday, August 2, 2018 5:59 PM
To: MUNOS, CY I GS-11 USAF AFGSC 91 MMXS/MMXSFK <cy.munos@us.af.mil>
Cc: Paul Hartzheim <phartzheim@merjent.com>; Zedaker, Edwin F. <Edwin.Zedaker@oneok.com>; Lucas Bicknell <lbicknell@merjent.com>
Subject: [Non-DoD Source] ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

Mr. Munos,

Merjent, on behalf of ONEOK Bakken Pipeline, L.L.C. (ONEOK), respectfully submits the attached letter regarding ONEOK's Demicks Lake Pipeline Project. This project is under the jurisdiction of the North Dakota Public Service Commission, and copies of correspondence received in response to this letter will be included in ONEOK's Certificate of Corridor Compatibility and Route Permit application. We appreciate your review and response to this letter.

Kind regards,

Maddy Krumwiede

Madeline Krumwiede, PMP

TractorWorks Building

612.746.3660 main

800 Washington Avenue N.

612.924.3973 direct

Suite 315

Minneapolis, MN 55401

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Merjent is proud to be one of America's Safest Companies

<http://ehstoday.com/safety-leadership/america-s-safest-companies-celebrate-return-their-safety-investment>

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ONEOK

August 2, 2018

Delivered via email to:
Cy Munos
U.S. Department of Defense - Air Force Cable Affairs
cy.munos@us.af.mil

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Munos,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

To support the NDPSC application, ONEOK respectfully submits a request for Project review from the U.S. Department of Defense, Air Force Cable Affairs regarding the location of intercontinental ballistic missiles and launch facilities within an approximate one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges crossed the evaluation corridor are presented in the following table. Aerial and topographic based mapsets and shapefiles are also attached for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Game and Fish Department

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GOVERNOR, Doug Burgum
DIRECTOR, Terry Steinwand
DEPUTY, Scott A. Peterson

"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT
100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

July 3, 2018

Eddy Zedaker
Environmental Engineer
ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103

Dear Mr. Zedaker:

RE: Demicks Lake Pipeline Project

ONEOK Bakken Pipeline, LLC is proposing to construct approximately 75 miles of 20-inch new steel pipeline to transport natural gas liquids. The project originates at ONEOK Rockies Midstream, LLC's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates at a planned interconnection with a ONEOK affiliate pipeline in Richland County, Montana. The North Dakota Game and Fish Department (NDGF) has reviewed this project for wildlife concerns.

A primary concern with pipeline projects is the possible disturbance of native prairie and wooded draws associated with construction of the pipeline and access roads. Avoidance of native prairie areas reduces impacts to a number of grassland species including many of the species of conservation priority. We ask that work within these areas be avoided to the extent possible, every effort be made to prevent destruction of woody vegetation, and disturbed areas be reclaimed to pre-project conditions.

The National Wetland Inventory indicates a variety of wetlands within the proposed project corridor. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in kind.

Aerial surveys should be conducted for raptor nests before construction begins. We recommend that a ½-mile construction buffer be implemented around active eagle nest sites (known occupied within the past 5 years). Ms. Sandra Johnson, Conservation Biologist, may be contacted at 701-328-6327 for additional information on golden eagle nest sites in the state.

Information regarding the presence of Private Lands Open to Sportsmen (PLOTS) is available at: http://gf.nd.gov/plots/guide. This page is updated to reflect changes as tracts are added or removed. PLOTS is a public access program which cost-shares with private landowners to help conserve fish and wildlife habitat. PLOTS lands are not owned or managed by the NDGF.

We do not believe this project will have significant adverse effects on wildlife or wildlife habitat provided these recommendations are implemented in the construction of the project.

Sincerely,

Greg Link
Chief
Conservation & Communication Division

js

June 7, 2018

Mr. Greg Link, Division Chief
North Dakota Game and Fish Department
Conservation and Communication Division
100 North Bismarck Expressway
Bismarck, ND 58501-5095

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Link,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 75 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK Rockies Midstream, L.L.C.'s planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project location maps). Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way and/or related tree and shrub mitigation will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. The majority of the route is co-located with existing linear utilities. Additionally, ONEOK is currently conducting environmental field surveys of the route (survey reports will be available upon request).

The enclosed Project maps depict the pipeline route and a one-mile-wide evaluation corridor. The Townships, Ranges, and Sections crossed by the Project in North Dakota are presented in Table 1.

Table 1
Demicks Lake Pipeline Location in North Dakota

County	Township	Range	Sections
McKenzie	146 North	104 West	2, 7-11
McKenzie	146 North	105 West	12-15, 22
McKenzie	147 North	103 West	5-7, 18
McKenzie	147 North	104 West	13, 24-26, 35
McKenzie	148 North	102 West	2-6
McKenzie	148 North	103 West	1, 12-14, 23, 26, 27, 32-34
McKenzie	149 North	99 West	4-6
McKenzie	149 North	100 West	1, 2, 8-11, 17-19
McKenzie	149 North	101 West	23, 24, 26, 27, 32, 33
McKenzie	150 North	98 West	6
McKenzie	150 North	99 West	1, 2, 11, 14-16, 21, 28, 33
McKenzie	151 North	96 West	7, 17, 18, 20
McKenzie	151 North	97 West	12-14, 23, 26-31
McKenzie	151 North	98 West	31-36

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

June 7, 2018
Mr. Greg Link

ONEOK respectfully submits a request for Project review from the North Dakota Department of Game and Fish for presence or absence of: sensitive species; game refuge or game management lands; Private Land Open to Sportsmen lands; and projects under the direction of these programs. Transmission line status places the Project under the jurisdiction of the North Dakota Public Service Commission (NDPSC) and a copy of your response will be included in ONEOK's application for a Certificate of Corridor and Route Permit.

ONEOK has retained Merjent, Inc. (Merjent) as its environmental consultant for this project. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications. We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com or me at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Eddie Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps

cc: Maddy Krumwiede, Merjent

Lucas Bicknell

To: Zedaker, Edwin F.
Subject: RE: (External) ONEOK Bakken Pipeline, LLC - Demicks Lake Pipeline Project Update & Route Revision

From: Schumacher, John D. [mailto:jdschumacher@nd.gov]
Sent: Friday, August 31, 2018 3:31 PM
To: Zedaker, Edwin F.
Subject: (External) ONEOK Bakken Pipeline, LLC - Demicks Lake Pipeline Project Update & Route Revision

Mr. Zedaker,

The North Dakota Game and Fish Department has reviewed this project as modified and has nothing additional to offer. Our original comments are still applicable.

JOHN SCHUMACHER
RESOURCE BIOLOGIST
ND GAME AND FISH DEPT
701.328.6321

ONEOK

August 1, 2018

Mr. Greg Link
Division Chief
North Dakota Game and Fish Department
Conservation and Communication Division
100 North Bismarck Expressway
Bismarck, ND 58501-5095

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Update and Route Revision

Dear Mr. Link,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) submitted a consultation request to your attention in early June 2018 soliciting comments on its proposed Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK Rockies Midstream, L.L.C.'s planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map)[1]. The North Dakota Game and Fish Department provided comments on the Project in a July 3, 2018 response.

The original consultation letter requested review of the Project route and a one-mile-wide evaluation corridor associated with the route. Since the original consultation was submitted, ONEOK has refined the route, and one route modification falls outside of the original one-mile-wide evaluation corridor in North Dakota. As such, we are providing an updated mapset for your review and are soliciting any additional comments you may have that were not identified in your July 3, 2018 response. A table displaying Sections, Townships, and Ranges within the current evaluation corridor is presented below.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35

[1] Approximately 2 miles of the Project are located in Montana.

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Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Parks and Recreation Department

Doug Bergum, Governor
Melissa Baker, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

August 17, 2018

Eddie Zedaker
ONEOK
100 West 5th Street
Tulsa, OK 74103

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AUG 27 2018
ONEOK
CORP ENVIRONMENTAL

Re: Bakken Pipeline LLC – Demicks Pipeline Project

Dear Mr. Zedaker;

The North Dakota Parks and Recreation Department has reviewed the above referenced proposal for the Bakken Pipeline Project in McKenzie County, North Dakota.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or affect Land and Water Conservation Fund (LWCF) project sites that we manage

The North Dakota Natural Heritage biological conservation database has been reviewed to determine 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, several species of concern have been identified within or adjacent to the project areas. Please refer to attached map and spreadsheet. Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. We defer an additional information regarding these species to the US Fish and Wildlife Service and/or ND Game and Fish Department.

The Department recommends that the project be accomplished with minimal impacts and that all efforts be made to ensure that critical habitats not be disturbed in the project area to help secure rare species conservation in North Dakota. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

It is our policy to charge requests for data services including data retrieval, data analysis, manual and computer searches, packaging and collection of data. An invoice for services provided has been enclosed.

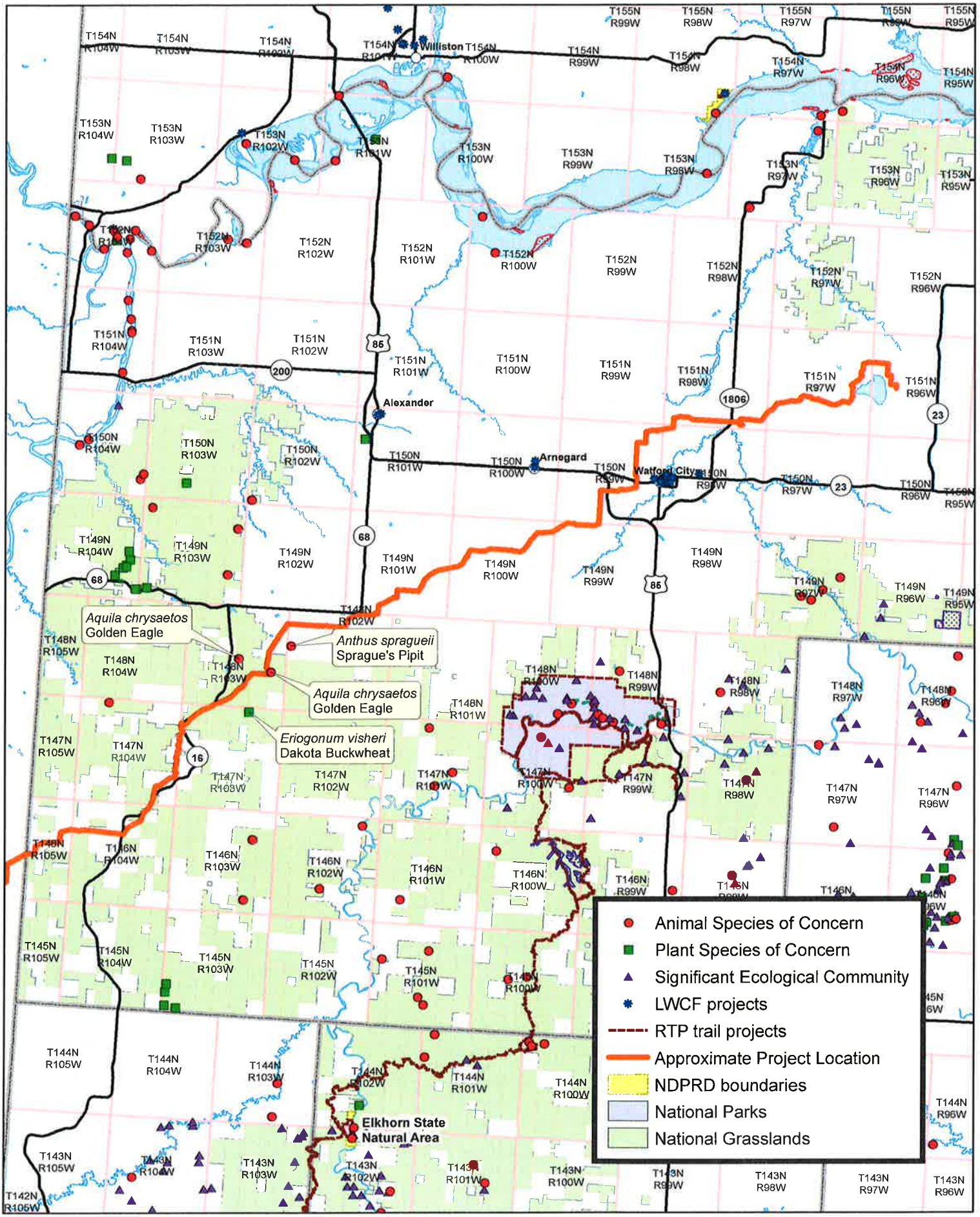
We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact me at (701-328-5370 or kgduttenhefner@nd.gov) of our staff. Thank you for the opportunity to comment on this proposed project.

Sincerely,

Kathy Duttenhefner, Coordinator
Natural Resources Division

R.USNDNHI*2018_099KD8.17.2018DL8.17.2018

North Dakota Parks and Recreation Department
North Dakota Natural Heritage Inventory



August 2018

North Dakota Natural Heritage Inventory

Rare Animal and Plant Species and Significant Ecological Communities

State Scientific Name	State Common Name	State Rank	Global Rank	Federal Status	Township Range Section	County	Last Observation	Estimated Representation Accuracy	Precision
Anthus spragueii	Sprague's Pipit	S3	G4	C	148N102W - 18	McKenzie	1976-06		S
Aquila chrysaetos	Golden Eagle	S3	G5		148N103W - 22	McKenzie	1981		S
Aquila chrysaetos	Golden Eagle	S3	G5		148N103W - 24	McKenzie	1981		S
Eriogonum visheri	Dakota Buckwheat	S2	G3		147N103W - 02; 147N103W - 03	McKenzie	1995-07-25		S

North Dakota Natural Heritage Inventory Biological and Conservation Data Disclaimer

The quantity and quality of data collected by the North Dakota Natural Heritage Inventory are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in North Dakota have never been thoroughly surveyed, and new species are still being discovered. For these reasons, the Natural Heritage Inventory cannot provide a definite statement on the presence, absence, or condition of biological elements in any part of North Dakota. Natural Heritage data summarize the existing information known at the time of the request. Our data are continually upgraded and information is continually being added to the database. This data should never be regarded as final statements on the elements or areas that are being considered, nor should they be substituted for on-site surveys.

Estimated Representation Accuracy

Value that indicates the approximate percentage of the Element Occurrence Representation (EO Rep) that was observed to be occupied by the species or community (versus buffer area added for locational uncertainty). Use of estimated representation accuracy provides a common index for the consistent comparison of EO reps, thus helping to ensure that aggregated data are correctly analyzed and interpreted.

Very high (>95%)
High (>80%, <= 95%)
Medium (>20%, <= 80%)
Low (>0%, <= 20%)
Unknown
(null) - Not assessed

Precision

A single-letter code for the precision used to map the Element Occurrence (EO) on a U.S. Geological Survey (USGS) 7.5' (or 15') topographic quadrangle map, based on the previous Heritage methodology in which EOs were located on paper maps using dots.

S - Seconds: accuracy of locality mappable within a three-second radius; 100 meters from the centerpoint
M - Minute: accuracy of locality mappable within a one-minute radius; 2 km from the centerpoint
G - General: accuracy of locality mappalbe to map or place name precision only; 8 km from centerpoint
U - Unmappable

August 2, 2018

Delivered via email to: Kathy Duttenhefner, Coordinator
North Dakota Department of Parks and Recreation, Natural Resource Division
kgduttenhefner@nd.gov

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Update and Route Revision

Dear Ms. Duttenhefner,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) submitted a consultation request to your attention in early June 2018 soliciting comments on its proposed Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles[1] of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK Rockies Midstream, L.L.C.'s planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline.

The original consultation letter requested review of the Project route and a one-mile-wide evaluation corridor associated with the route. Since the original consultation was submitted, ONEOK has refined the route, and one route modification falls outside of the original one-mile-wide evaluation corridor in North Dakota. As such, we are providing an updated mapset for your review. A table displaying Sections, Townships, and Ranges within the current evaluation corridor is presented below.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31

[1] Approximately 2 miles of the pipeline are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

August 2, 2018
Ms. Kathy Duttenhefner

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

ONEOK respectfully submits a request for Project review from the North Dakota Parks and Recreation Department of the North Dakota Natural Heritage Inventory system and for presence or absence of state parks, recreation areas, natural areas, and land and water conservation fund projects. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Eddie Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Geological Survey

North Dakota Geological Survey

Edward C. Murphy - State Geologist

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.state.nd.us/ndgs

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August 21, 2018

Edwin Zedaker
ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103

Re: ONEOK Bakken Pipeline, LLC – Demicks Lake Pipeline Project – Proposed Pipeline Route Evaluation Comments

The North Dakota Geological Survey appreciates the notification and opportunity to review and provide comment on your proposed oil and gas energy development project. Your evaluation request of August 1, 2018 was reviewed by our office on August 16 & 17, 2018. We dropped in the approximate alignment of the proposed pipeline route on our landslide base maps and compared it to the locations of landslides that have been identified by detailed mapping work previously completed by our office. In addition the entire pipeline trace was evaluated against National Agriculture Imagery Program (NAIP) imagery from May, 2017 for the identification of any recent landslide areas.

From this route evaluation we noted that the proposed pipeline route does not cross any areas previously mapped as landslides. However, we noted several areas of concern that could have the potential for future slope instability. These areas were found at the locations of stream crossings or alongside slopes of relatively high topographic relief along the proposed pipeline route (Figure 1, Attached). The approximate locations are listed below in Table 1:

Table 1. Identified Areas of Concern

Map Page	Description	Longitude	Latitude	PLSS
1	Creek Crossing	-103.110720	47.878163	SW, SW, 151-97-21
4	Slope Areas	-103.386488	47.759922	SW, SE 149-100-10
4	Creek Crossing	-103.408181	47.755246	SW, NW 149-99-6
5	Cherry Creek Crossing	-103.531379	47.719084	SE, SW 149-100-18
5	Slope Areas	-103.543181	47.716278	NE, NE 149-100-24
6	Creek Crossing, Slope Areas	-103.688415	47.662491	SW, SW, 148-102-4
6	Slope near Stock Dam, Sheep Creek Crossing	-103.759902	47.628507	SW, NE, 148-103-23
6	Location between slopes and gravel road	-103.768570	47.618723	SW, SE, 148-103-23
7	Bay Creek Crossing	-103.817559	47.592217	SW, SW, 148-103-33
7	Creek Crossing	-103.860289	47.564203	SW, SW, 147-103-7
7	Creek Crossing	-103.861357	47.559037	NW, NW, 147-103-18
7	Creek Crossing	-103.862337	47.555651	SE, NE, 147-104-13
8	Slope Area	-103.864068	47.545000	NE, NE, 147-104-24
8	Slope Area	-103.863853	47.529763	NE, NE, 147-104-25

Each of these areas should receive additional engineering evaluation prior to excavation and placement of pipe as each exhibits characteristics of potentially unstable areas.

North Dakota Geological Survey

Edward C. Murphy - State Geologist

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.state.nd.us/ndgs

If possible, areas like these should be avoided when possible. There should be continued careful examination of pipeline route selection and construction practices throughout the proposed pipeline project corridor.

You may also contact our offices directly, with any additional questions or comments, at (701) 328-8000.

Sincerely,

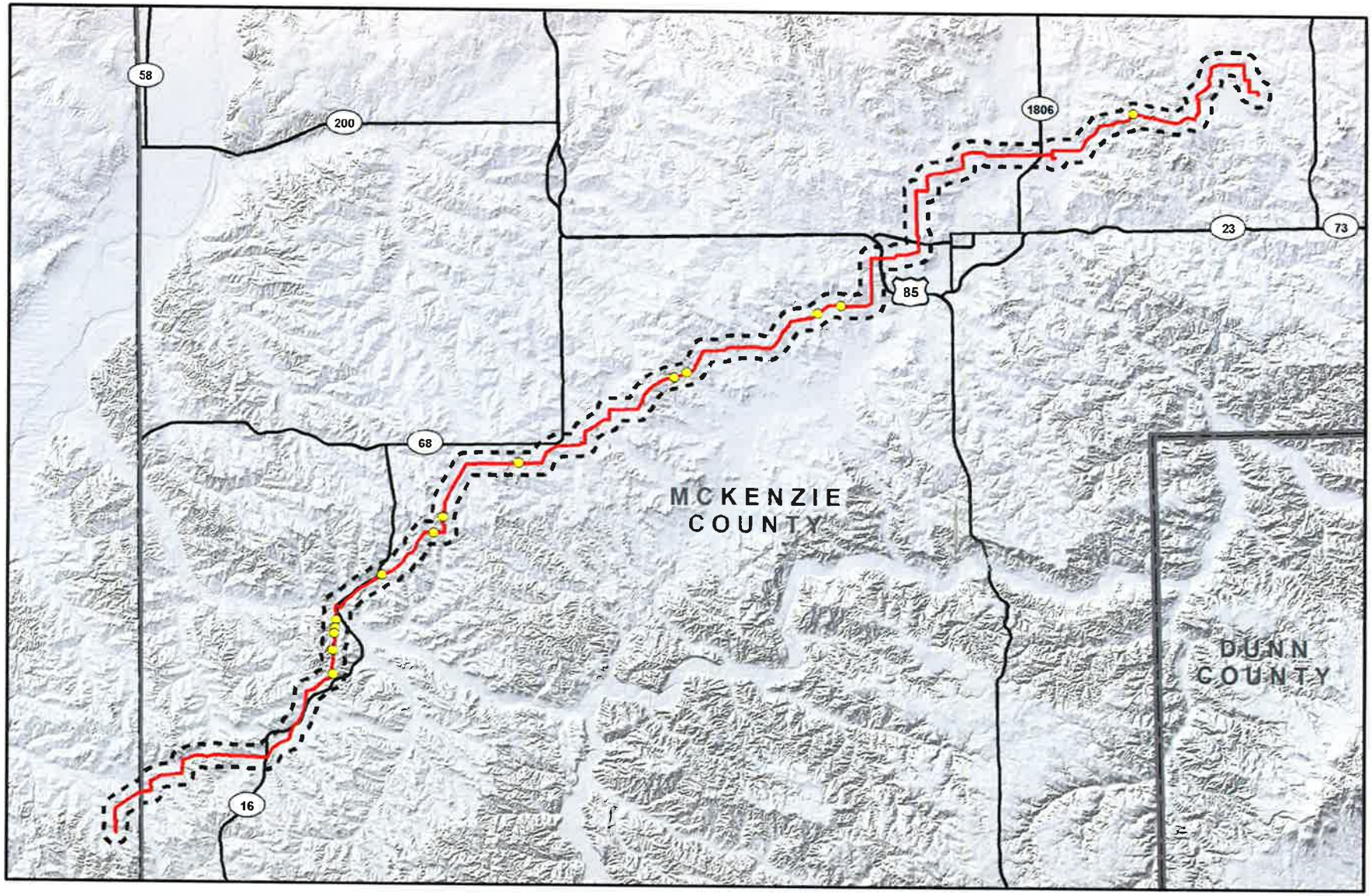
North Dakota Geological Survey:

Fred Anderson

Fred Anderson
Geologist

fjanderson@nd.gov

FJA\Attachment


58
200
1806
23
73
85
68
MCKENZIE
COUNTY
DUNN
COUNTY
16
Legend
Area of Concern
Pipeline
0.5 Mile Buffer
Demicks Lake Pipeline Project
N
W
E
S
0
2
4
8
12
16
Miles

August 1, 2018

Lynn Helms
Director
North Dakota Geological Survey
600 East Boulevard
Bismarck, ND 58505

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Helms,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits this project information to the North Dakota Geological Survey to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
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148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
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149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent, at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Department of Health

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

RECEIVED
AUG 21 2018
ONEOK
CORPORATE ENVIRONMENTAL

August 15, 2018

Mr. Edwin Zedaker
Environmental Engineer
ONEOK, Inc.
100 West 5th Street
Tulsa, OK 74103

Re: ONEOK Bakken Pipeline, L.L.C.
Demicks Lake Natural Gas Liquids Pipeline Project
Richland County, North Dakota

Dear Mr. Zedaker:

This department has reviewed the information concerning the above-referenced project submitted under date of August 1, 2018, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

2. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

3. The proposed construction project overlies the Cherry Creek, Tobacco Garden, Keene, and Bonnie Peer glacial drift aquifers; the Cherry Creek and Tobacco Garden aquifers are designated sensitive groundwater areas. Several domestic and stock water supply wells are located in the vicinity of the proposed project route. Care should be taken to avoid spills of

any materials that may have an adverse effect on groundwater quality. All spills must be immediately reported to this Department and appropriate remedial actions performed.

4. Projects that involve construction of pipelines should select locations that minimize the potential for impacts to human health and the environment during and after construction by avoiding, when possible, source water protection areas and sensitive surface and groundwater environments. Additionally, when possible, pipeline routes should select areas with natural barriers to both surface and ground waters. Human health and the environment should be further protected by developing a spill response plan that emphasizes rapid deployment of prepositioned assets necessary to contain spills and subsequent cleanup. Proper surveillance and monitoring for early detection of leaks should be required.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

August 1, 2018

Mr. Peter Wax
North Dakota Department of Health
Environmental Health Section
600 E. Boulevard Avenue
Bismarck, ND 58505-0200

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Wax,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

It is our understanding that the North Dakota Department of Health (NDDH) provides guidance for implementing strategies to address environmental impacts and problems associated with new developments, administers the state hazardous waste management program, water and air quality management programs, and oversees protection of groundwater and drinking water aquifers.

ONEOK respectfully submits this project information to the NDDH to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
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151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

During initial planning for the Project, ONEOK conducted a review of state regulations pertaining to stream classifications (NDCC 33-16.02) as it relates to Section 401 Water Quality Certification under the U.S. Army Corps of Engineers' Nationwide Permit 12. State regulations list Spring Creek (tributary to Knife River) as a Class IA water. The Project crosses a waterbody named Spring Creek; however, it flows to the west, ultimately reaching the Yellowstone River in Montana. As such, we assumed the Spring Creek listed as a Class IA stream is a different waterbody and we are requesting confirmation of this assumption.

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview, Aerial and Topographic Based Route Maps
Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota State Water Commission

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • http://swc.nd.gov

August 21, 2018

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AUG 24 2018
ONEOK
CORP ENVIRONMENTAL

Edwin Zedaker
ONEOK
100 West Fifth Street
Tulsa, OK 74103

Dear Mr. Zedaker:

This is in response to your request for a review of the environmental impacts associated with the Demicks Lake Pipeline Project located in McKenzie County, ND.

The proposed project has been reviewed by State Water Commission staff, and the following comments are provided:

- Initial review indicates the project does not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the project, a water permit will be required per North Dakota Century Code (NDCC) § 61-04-02. Please consult with the Water Appropriations Division of the Office of the State Engineer (OSE) if you have any questions regarding this comment at 701-328-2754 or waterpermits@nd.gov.

The State Water Commission (SWC) maintains a network of observation wells across the state for monitoring the water levels and quality in glacial and bedrock aquifers. These wells are often installed in road and highway rights-of-way to limit inconvenience to the adjacent landowners. SWC observation wells have a yellow protective casing extending between 1 and 3 feet above ground surface, and their locations are marked with a stake. If an observation well is encountered during project activities and must be removed, please contact the Water Appropriations Division. The SWC hopes to keep all observation wells, but otherwise will ensure the well is properly abandoned.

- Through the National Flood Insurance Program, a floodplain permit is required for all development that takes place within a Special Flood Hazard Area, as identified by FEMA. Please work with the local floodplain administrator(s) for additional information and permit requirements. The floodplain administrator for Watford City is Rick Jore, 701-444-2533 or rjore@nd.gov.

- The OSE Engineering and Permitting Section reviewed the project route and determined that the project route traverses over or through surface water resources. The OSE requests to be notified regarding the proposed project's impacts, if any, to water resources such as watercourses (i.e. streams or rivers), agricultural drains, wetlands (i.e. ponds, sloughs, lakes, or any series thereof), dams, or other devices. Any alterations, modifications, improvements, or impacts to those water resources may require a drainage permit(s) or a construction permit(s) from the OSE. Construction permits may be required for Dams of 25 acre-feet or greater and for Other Devices (dugouts, holding ponds, etc) of 50 acre-feet or greater. For further information on the OSE's permitting requirements, please visit the Regulation & Appropriation tab on the OSE's website (swc.nd.gov). If you have any questions regarding this comment, please contact the OSE Engineering and Permitting Section: Matt Lindsay – Engineering and Permitting Section Manager 701-328-4949 or Jordan Woroniecki – Water Resource Engineer 701-328-4898.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4967.

Sincerely,

Jared Huibregtse
Water Resource Planner IV

JH:dm/1570

DOUG BURGUM, GOVERNOR
CHAIRMAN

GARLAND ERBELE, P.E.
CHIEF ENGINEER-SECRETARY

August 1, 2018

John Paczkowski
North Dakota State Water Commission
900 East Boulevard
Bismarck, ND 58505

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Paczkowski,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

It is our understanding that the North Dakota State Water Commission (NDSWC) administers water appropriation and sovereign lands permit programs and may also have relevant information regarding rural water supply systems and projects. ONEOK respectfully submits this project information to the NDSWC to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
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149 North	100 West	1-2, 7-12, 14-20

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

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The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

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We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Department of Trust Lands

School Trust Lands

1707 North 9th Street
PO Box 5523
Bismarck, ND 58506-5523
Phone: (701) 328 – 2800
Fax: (701) 328 – 3650

https://land.nd.gov

DEPARTMENT OF
NDTRUST LANDS
INVESTING FOR EDUCATION

Jodi A. Smith, Commissioner

August 6, 2018

RECEIVED
AUG 13 2018
ONEOK
CORP ENVIRONMENTAL

EDWIN ZEDAKER
ENVIRONMENTAL ENGINEER – ONEOK, INC
100 WEST FIFTH STREET
TULSA, OK 74103

RE: ONEOK BAKKEN PIPELINE, LLC – DEMICKS LAKE PIPELINE PROJECT – REQUEST FOR REVIEW

To Whom It May Concern:

The North Dakota Department of Trust lands (NDDTL) received an email dated August 2, 2018, from Edwin Zedacker regarding a request for comment on the proposed Oneok Bakken Pipeline, LLC – Demicks Lake Pipeline Project. Request for review and comment on NDDTL managed mineral property can be directed to Drew Combs, NDDTL Minerals Director. Below is list of surface tracts managed by NDDTL on behalf of the Board of University and School Lands located within the one mile buffer area of the proposed project.

County	Township	Range	Section
MCK	147	104	36
MCK	149	100	16
MCK	151	96	16
MCK	151	99	36

Any proposed projects crossing NDDTL managed property would need to apply for a Rights of Way and would be subject to review and approval by the Board of University and School Lands. This application can be found at: https://land.nd.gov/SurfaceROW/RightOfWay.

NDDTL reviews the financial benefit to the trusts; availability of alternate encumbrance site or route; least environmentally damaging site or route regardless of property ownership; physical stability of the landscape; other potential future uses for the trust lands, including urban development; potential mineral and other material development including oil, gas, coal, construction aggregate, sodium sulfate, chemical substances, metallic ore, or uranium ore; feasibility for reclamation; maintenance of existing wetlands and water flows; any cultural, historical, archeological, and paleontological resources; habitat for federally listed threatened and endangered species; location of the proposed route or site in relation to section lines, quarter section lines and corridors; potential liability to the trusts; applicant's past encumbrances on trust lands; applicant's financial stability; and any other information relevant to the application which would assist in the determination.

If you have any questions, feel free to contact our office at 701-328-2800.

Sincerely,

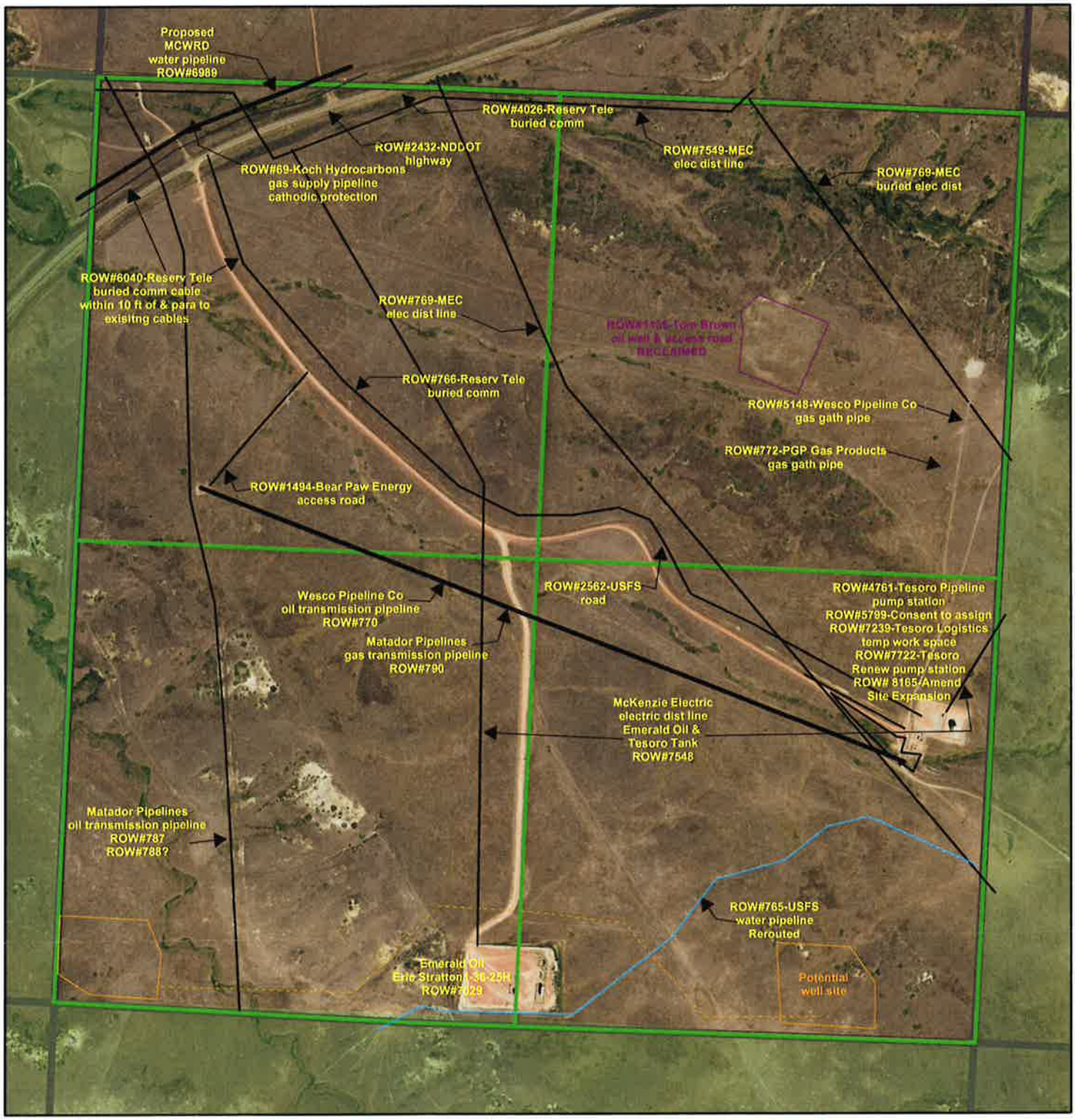
Kayla Graber
Land Management Specialist

Enclosures: Section Maps

36-T147-R104

McKenzie County

Township: Unorganized



*NDGF comments

N
W E
S

Map Datum is WGS 84 (same as NAD 83)

0 0.5 1 Miles

Printed: 4/9/2009 -- ND State Land Dept.

16-T149-R100

McKenzie County

Township: Unorganized



N

W E

S

Map Datum is WGS 84 (same as NAD 83)

0 0.5 1 Miles

Printed: 7/23/2010 -- ND State Land Dept.

16-T151-R96

McKenzie County

Township: Blue Buttes



-possible gravel
-no known archy/geo as of 7/2018

N
W E
S

Map Datum is WGS 84 (same as NAD 83)

0 0.5 1 Miles

Printed: 2/21/2007 -- ND State Land Dept.

36-T151-R99

McKenzie County

Township: Unorganized



N

W E

S

Map Datum is WGS 84 (same as NAD 83)

0 0.5 1 Miles

Printed: 12/13/2010 -- ND State Land Dept.

ONEOK

August 2, 2018

Delivered via email to:
Mr. Joseph Stegmiller, Natural Resources Professional
North Dakota Department of Trust Lands – Surface Management Division
JStegmiller@nd.gov

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Mr. Stegmiller,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits this project information to the North Dakota Department of Trust Lands - Surface Management Division to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline to determine if Surface/School Trust lands are present. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
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[1] Approximately 2 miles of the Project are located in Montana.

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The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,



Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

North Dakota Department of Trust Lands

Mineral Trust Lands

Lucas Bicknell

From: Nagel, Allie C. <allie.nagel@nd.gov>
Sent: Tuesday, August 14, 2018 9:30 AM
To: Maddy Krumwiede
Cc: Paul Hartzheim; 'Edwin.Zedaker@oneok.com'; Lucas Bicknell
Subject: RE: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

Maddy,

We agree that the data provided represents the approximate location of the Demicks Lake Pipeline Project Corridor with relation to the location of mineral interests managed by this office, for use in a filing with the PSC in the state of North Dakota.

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

Respectfully,

Allisen Nagel, RPL
Land Professional
ND Department of Trust Lands
701.328.1952
allie.nagel@nd.gov

From: Combs, Drew A.
Sent: Monday, August 6, 2018 1:05 PM
To: Graber, Kayla M. <kgraber@nd.gov>
Cc: Nagel, Allie C. <allie.nagel@nd.gov>
Subject: FW: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

I think this is yours Kayla. Just a guess without looking :)

From: Maddy Krumwiede [mailto:mkrumwiede@merjent.com]
Sent: Thursday, August 02, 2018 5:57 PM
To: -Info-DTL Minerals <dtlminerals@nd.gov>
Cc: Paul Hartzheim <phartzheim@merjent.com>; Zedaker, Edwin F. <Edwin.Zedaker@oneok.com>; Lucas Bicknell <lbicknell@merjent.com>
Subject: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know they are safe.

Ms. Nagel,

Merjent, on behalf of ONEOK Bakken Pipeline, L.L.C. (ONEOK), respectfully submits the attached letter regarding ONEOK's Demicks Lake Pipeline Project. This project is under the jurisdiction of the North Dakota Public Service Commission, and copies of correspondence received in response to this letter will be included in ONEOK's Certificate of Corridor Compatibility and Route Permit application. We appreciate your review and response to this letter.

Kind regards,
Maddy Krumwiede

merjent

Madeline Krumwiede,
PMP

TractorWorks Building
800 Washington Avenue N.
Suite 315
Minneapolis, MN 55401

612.746.3660 main
612.924.3973 direct
612.746.3679 fax

www.merjent.com
mkrumwiede@merjent.com

Merjent is proud to be one of America's Safest Companies

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August 2, 2018

Delivered via email to:
Ms. Allisen Nagel, Land Professional
North Dakota Department of Trust Lands – Minerals Management Division
DtlMinerals@nd.gov

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

Dear Ms. Nagel,

ONEOK Bakken Pipeline, L.L.C. (ONEOK) proposes to construct the Demicks Lake Pipeline Project (Project) consisting of approximately 76 miles of 20-inch-diameter new steel pipeline to transport natural gas liquids (NGLs). The Project originates at ONEOK's planned Demicks Lake Natural Gas Processing Plant in McKenzie County, North Dakota and terminates in Richland County, Montana at a planned interconnection with a ONEOK affiliate pipeline (see enclosed Project overview map).[1] Construction will begin as early as February 2019 and will be completed in approximately 5-6 months. After construction is complete, restoration/reclamation of the right-of-way will continue as necessary.

A detailed routing analysis has been performed on this Project taking into consideration a significant amount of information to avoid and minimize impacts of known and suspected resources. Additionally, ONEOK is in the process of completing environmental field surveys (cultural and biological resources) of the route. The majority of the route is co-located with existing linear utilities.

ONEOK respectfully submits this project information to the North Dakota Department of Trust Lands - Minerals Management Division to review a one-mile-wide "evaluation corridor" centered along the route of the pipeline to determine if Mineral Trust lands are present. Sections, Townships, and Ranges within the evaluation corridor are presented in the following table. Aerial and topographic based mapsets are also included for your review.

Table 1
Demicks Lake Pipeline Location

North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
146 North	104 West	1-3, 7-11, 15-18
146 North	105 West	11-15, 22-24
147 North	103 West	3-8, 18-19, 30
147 North	104 West	1, 12-13, 24-26, 34-36
148 North	102 West	1-10
148 North	103 West	1, 11-14, 22-28, 31-35
149 North	99 West	3-7
149 North	100 West	1-2, 7-12, 14-20
149 North	101 West	13-14, 22-29, 31-35

[1] Approximately 2 miles of the Project are located in Montana.

ONEOK, Inc.
100 West Fifth Street
Tulsa, OK 74103
www.oneok.com

Table 1 Demicks Lake Pipeline Location		
North Dakota		
Township	**Range**	**Sections within Evaluation Corridor**
149 North	102 West	36
150 North	98 West	1-6
150 North	99 West	1-2, 11-14, 21-28, 31-34
150 North	100 West	36
151 North	96 West	7-8, 16-21
151 North	97 West	11-14, 19-31
151 North	98 West	25-26, 31-36
151 North	99 West	35-36
Montana		
20 North	60 East	34
19 North	60 East	3

The purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

Merjent, Inc. (Merjent) has been contracted by ONEOK to assist with the environmental review of the Project areas, completion of regulatory applications, and consultations with other agencies. Please identify any specific persons within your organization that should be contacted or included in future Project-related communications.

We appreciate your assistance with this request and look forward to your timely review and comments on this Project. Should you have any questions or require additional information, please contact Maddy Krumwiede of Merjent at 612-924-3973 or mkrumwiede@merjent.com, or myself at 918-595-1783 or Edwin.Zedaker@oneok.com.

Sincerely,

Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic Based Route Maps

Cc: Maddy Krumwiede and Paul Hartzheim, Merjent

Western Area Water Supply Authority

<<Response Pending>>

McKenzie County Board of Commissions

<<Response Pending>>

McKenzie County Water Resource District

<<Response Pending>>

McKenzie County Weed Control Board

Lucas Bicknell

From: Amber Higgins <mcweed@restel.net>
Sent: Friday, August 3, 2018 6:21 AM
To: Maddy Krumwiede
Subject: RE: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project
Attachments: Weed Management Plan - Copy.doc

Maddy-

Could you have the attachment filled out completely and signed. I will then review and approve if everything looks good!

Amber Higgins#
P fNhq}lh#Frxqw|#Z hhg#R iilfhu#
Skrqh0#:340;7507464#
Id{#0:340;757:64#

From: Maddy Krumwiede [mailto:mkrumwiede@merjent.com]
Sent: Thursday, August 02, 2018 5:58 PM
To: mcweed@restel.net
Cc: Paul Hartzheim; Zedaker, Edwin F.; Lucas Bicknell
Subject: ONEOK Bakken Pipeline, L.L.C. Demicks Lake Pipeline Project

Ms. Higgins,

Merjent, on behalf of ONEOK Bakken Pipeline, L.L.C. (ONEOK), respectfully submits the attached letter regarding ONEOK's Demicks Lake Pipeline Project. This project is under the jurisdiction of the North Dakota Public Service Commission, and copies of correspondence received in response to this letter will be included in ONEOK's Certificate of Corridor Compatibility and Route Permit application. We appreciate your review and response to this letter.

Kind regards,
Maddy Krumwiede

merjent

Madeline Krumwiede,
PMP

TractorWorks Building
800 Washington Avenue N.
Suite 315
Minneapolis, MN 55401

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612.746.3679 fax

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mkrumwiede@merjent.com

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McKenzie County
Weed Management Plan

Purpose: **This is a simplified weed management template that is specifically designed for small properties/areas.** It is designed to assist in controlling noxious weeds by documenting areas at risk whether it be currently infested or could possibly become infected in the future. This weed management template is also to assist in coordinating efforts between McKenzie County Weed Control and landowners/operators/developers to accomplish noxious weed control goals in McKenzie County. A copy of this weed management plan will be kept on file with McKenzie County Weed Control as well as with all parties involved in the ownership and/or management of the property.

Date _____ **Circle One: PRIVATE COMMERCIAL**

Name of Landowner _____

Name of Party Responsible for Weed Control if Different than Landowner

_____

Address of Responsible Party

_____

Phone Number_____

E-Mail_____

Approximate Size of Property _____

Legal Description of Property _____

Purpose of Property

_____

_____

Surface Movement for Commercial Construction Purposes: Circle or highlight one

Scoria Manure Dirt Sand Gravel Construction Other_____

1.0 Management Goals: Management goals describe the purpose/use of the property and what you are trying to achieve. Having clear management goals is key to developing a weed management plan. (The minimum amount required by North Dakota and McKenzie County Weed Law is to mow noxious weeds to prevent them from going to seed. Another management goal may be to restore an area with native vegetation. Management goals might also include preventing contamination and/or spread of noxious weeds due to mining or storage of construction materials by a yearly or bi-yearly application of herbicide.)

Please list your management goals as they apply to this property:

_____
_____
_____
_____

2.0 Weed Control Objectives:

Knowing which weed species occur on your property and where they are located is very important in developing control priorities. Weed species vary considerably in the threat that they pose to the resource values of the property. In addition, weed species vary greatly in their susceptibility to control measures. Thus, weed species that pose the greatest threat to achieving the management goals for the property and which can be most easily controlled are the highest priority for management. To create weed control objectives for your weed management plan, first search your property for weeds (if you have not already done so).

3.0 Weed Control Objectives – 3 year plan

1st Year Weed Control Objective:

_____
_____
_____

2nd Year Weed Control Objective:

_____
_____
_____

3rd Year Weed Control Objective:

_____
_____
_____

4.0 Evaluating Weed Control: After you have created weed control objectives and have began to control the priority weed species on your property, you should evaluate the results of your control methods. This requires follow-up visits to the areas where weeds were controlled and a re-assessment of the size and density of an infestation. (For example, compare the size of the infestation after a growing season has elapsed to the size before control actions were initiated.) In most cases, the elimination of an infestation will take several years with multiple treatments per year to kill the plants and eliminate the bank of weed seeds in the soil.

ND Law 4.1-47-02. Control of noxious weeds.

Each Person shall do all things necessary and proper to control the spread of noxious weeds.

In signing this document I understand that I will be responsible for noxious weed control on the property listed above.

Responsible Party_____ Date_____

McKenzie County
Weed Board Chairperson:_____ Date_____

Please allow 48 hours for review of this plan prior to receiving confirmation of approval.

ONEOK

August 2, 2018

Delivered via email to:
Ms. Amber Higgins
McKenzie County Weed Board
mcweed@restel.net

RE: ONEOK Bakken Pipeline, L.L.C. – Demicks Lake Pipeline Project
Project Notification and Request for Review

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Based on a review of the North Dakota Century Code 4.1-47-02 and North Dakota Department of Agriculture (NDDA) guidance documents, the following noxious weeds are currently listed:

- Absinth wormwood (*Artemisia absinthium*)
- Canadian thistle (*Cirsium arvense*)
- Diffuse knapweed (*Centaurea diffusa*)
- Leafy spurge (*Euphorbia esula*)
- Musk thistle (*Carduus nutans*)
- Purple loosestrife (*Lythrum salicaria*)
- Russian knapweed (*Acroptilon repens*)
- Spotted knapweed (*Centaurea masculosa*)
- Yellow toadflax (*Linaria vulgaris*)
- Dalmation toadflax (*Linaria dalmatica*)
- Saltcedar (*Tamarix chinensis*)

In addition to the NDDA noxious weed and invasive species list, McKenzie County has designated the additional five species as noxious weeds:

- Black henbane (*Hyoscyamus niger*)
- Common burdock (*Arctium minus*)
- Houndstongue (*Cynoglossum officinale*)
- Halogeton (*Halogeton glomeratus*)
- Baby's breath (*Gypsophila*)

August 2, 2018
Ms. Amber Higgins

To facilitate our environmental review, we are requesting the following information for the areas crossed that are within the 1-mile wide study area associated with the Project:

- Confirmation that the list of noxious weeds above is correct and current;
- Known locations of noxious and/or invasive weed species along the proposed route; and
- Guidance and/or recommendations for weed control, pesticide use, and non-chemical treatment options.

As part of its environmental field surveys for the Project, ONEOK is conducting an inventory of noxious and invasive weeds and will develop a Noxious Weed Management Plan prior to construction. We request additional information from your office on known location, size, and extent of noxious/invasive weeds; if available, please provide as a GIS shapefile, geographic coordinates (e.g., latitude/longitude), Public Land Survey System Section(s), or marked on a map.

As indicated above, the purpose of this letter is to provide notification of the proposed Project and to solicit comments that will assist in the regulatory process. The Project is within the jurisdiction of the North Dakota Public Service Commission (NDPSC) and copies of correspondence received in response to this letter will be included in ONEOK's application for a Corridor Certificate and Route Permit, which will be filed with the NDPSC later this year.

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Sincerely,



Edwin Zedaker
Environmental Engineer
ONEOK, Inc.

Enclosures: Project Overview Maps
Aerial and Topographic based Route Maps

CC: Maddy Krumwiede and Paul Hartzheim, Merjent

Exhibit E

Landowner Waivers

Residence at milepost 20.5

RE: ONEOK Bakken NGL, L.L.C.-Demicks Lake
Project Notification and Request for Review

Dear Terry J. Dorvel

Please review the attached site map noting the proposed location of an underground pipeline and associated facilities that are included in the Demicks Lake NGL Pipeline application the ONEOK Bakken NGL, L.L.C (ONEOK) intends to file the North Dakota Public Service Commission. The Project involves the construction of a 20-inch-diameter steel pipeline in McKenzie County, North Dakota.

The attached site map indicates that the Project will be located within 500 feet of your residence or business. By signing below you are confirming that you have no objection to the Project, or the future operation and maintenance of the pipeline. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Jodi Collier
Right-of-Way Agent
ONEOK Bakken NGL, L.L.C

Terry J. Dorvel

9-9-18
Date

Date