

**North Dakota Public Service Commission
Route Permit Amendment
Divide Lateral Pipeline Project
PU-14-223**

Prepared for:

Meadowlark Midstream Company, LLC

Prepared by:

E3 Environmental, L.L.C.

July 2014



E3 ENVIRONMENTAL
Enhancing Execution with Experience



North Dakota Public Service Commission

Application for Route Permit

Amendment

Meadowlark Midstream Company, LLC

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INTRODUCTION

Meadowlark Midstream Company, LLC (MMC), a wholly owned subsidiary of Summit Midstream Partners, LLC, submitted to the North Dakota Public Service Commission (Commission) a Consolidated Application for a Certificate of Corridor Compatibility and Route permit for the Divide Lateral Pipeline Conversion Project on April 29, 2014 (Application or PU-14-223). MMC would like to amend the previous submittal to include planned expansions to the Divide Pump Station (DPS or Station). The DPS currently houses one 20,000 bbl storage tank (currently under construction), which is designed to serve as a surge protector. The addition of a 55,000 bbl tank with associated pumps, as well as the addition of pumps to the 20,000 bbl storage tank will cause the existing Divide Lateral Pipeline to fall under the definition of “transmission facility” under the North Dakota Transmission Facility Siting Act, as described in the Application.

The DPS will be located entirely within the 1-mile corridor described in the initial Application for the Project. The Certificate of Corridor Compatibility portion of the initial Consolidated Application remains unchanged, and as such is not part of this Amended Route Permit Application.

The application provides the requisite information as stipulated by:

- North Dakota Century Code, Energy Conversion and Transmission Facility Siting Act, Chapter 49-22-08.1 and,
- North Dakota Administrative Code, Chapter 69-06-05, Transmission Facility Permit.

SECTION 1: DESCRIPTION

1.1 TYPE OF TRANSMISSION FACILITY

Refer to the Application as filed.

1.2 PURPOSE OF TRANSMISSION FACILITY

Refer to the Application as filed.

1.3 LENGTH, SIZE AND DESIGN OF PIPELINE FACILITY

1.3.1 LENGTH OF FACILITY

Refer to the Application as filed; the DPS expansion does not affect the length of the transmission pipeline.

1.3.2 PIPE SIZE

Refer to the Application as filed.

1.3.3 OPERATING PRESSURE AND THROUGHPUT

Refer to the Application as filed.

1.4 ABOVEGROUND FACILITIES

In addition to the aboveground facilities detailed in the previously filed Application, the DPS expansion will include the addition of one 55,000 bbl aboveground tank with associated pumps. Pumps will be added to the (under construction) 20,000 aboveground storage tank. The tank specifications are listed below. Appendix A contains a project map and site plans for the Station.

- Tank One Specifications (under construction): 20,000 BBL tank (40-feet tall) with internal floating roof.
- Tanks Two Specifications: 55,000 BBL tank (40-feet tall) with internal floating roof.

1.5 WIDTH OF RIGHT-OF-WAY

Refer to the Application as filed; the DPS expansion will not affect the right-of-way dimensions for the pipeline. The DPS will occupy a 10-acre site.

1.6 LOCATION

Refer to the Application as filed.

1.7 PROJECT SCHEDULE

1.7.1 ROUTE PERMIT

Refer to the Application as filed.

1.7.2 CERTIFICATE OF CORRIDOR COMPATIBILITY

Refer to the Application as filed.

1.7.3 CONSTRUCTION SCHEDULE

Refer to the Application as filed.

SECTION 2: ROUTE ANALYSIS AND ENVIRONMENTAL STUDIES

2.1 PIPELINE ROUTE

Refer to the Application as filed.

2.2 ROUTE ALTERNATIVES

The location of the DPS is a function of the location of other MMC assets. The additions to the DPS are being constructed to provide storage of oil so that it may be transported through the Pipeline to the Colt Rail Terminal (CRT). If the DPS were not expanded, oil that will be stored for transport via pipeline would need to be trucked or transported via other means. Refer to the Application for details regarding Project alternatives.

2.3 ENVIRONMENTAL SURVEY.

Natural and Cultural resource surveys were conducted of the DPS location. The survey area is depicted on the maps in Appendix A. The results of these field surveys are discussed in the following sections; complete survey reports can be found in Appendix C and D.

2.3.1 NOXIOUS WEEDS

Field studies of the DPS did not identify noxious weeds within the Project area. Please see Appendix C for the Natural Resource Report.

2.3.2 TREE/SAPLING/SHRUB SURVEY

Field efforts documented no trees, saplings or shrubs within the survey area. As such, no trees or shrubs will be removed as a part of the proposed Project. Refer to Appendix C for the Natural Resource Survey Report.

2.3.3 WETLAND AND WATERBODIES SURVEY

The survey corridor was inventoried for wetland features. Field crews did not identify wetlands and waterbodies at the DPS site. Appendix C contains the Natural Resource Report.

2.3.4 WILDLIFE INVENTORY

During field survey, various wildlife species were observed which utilize grasslands and other habitat within the survey area. The results of this field effort are discussed below and the full Natural Resource Report is located in Appendix C.

2.3.4.1 FEDERALLY PROTECTED SPECIES SURVEY

Under authority of the Endangered Species Act (ESA), the U.S. Fish and Wildlife Service (USFWS) and the Fisheries Service division of the National Oceanic and Atmospheric Administration (NOAA) have identifies and maintains a list of species and critical habitats that are afforded protection under the ESA.

On March 6, 2014, E3 Environmental, LLC (E3) requested a USFWS review of the Project, requesting information relating to the presence or absence of threatened and

endangered species within the project area, which included the footprint of the DPS. The USFWS response is pending.

MMC commissioned field studies to confirm the presence or absence of these species and/or their critical habitats at the DPS site. No threatened or endangered species or critical habitat were observed at the DPS site. Additionally no raptors or other sensitive species were documents. Refer to Appendix C, which contains the Natural Resource Report.

2.3.5 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE

The North Dakota State Historic Preservation Office (SHPO) is charged with managing the historic and archaeological resources of the state. MMC commissioned SWCA Environmental Consultants (SWCA), to conduct a Class I cultural resource inventory of the DPS site. This desktop analysis was completed in April of 2014. The results noted no previously recorded cultural resources within 1-mile of the DPS.

The ensuing Class III Cultural Resource Inventory of the survey corridor was completed by SWCA on April 25, 2014. No cultural resources were recorded during the Class III inventory. Refer to Appendix D, which contains the Cultural Resource Inventory Report and Appendix B for related agency correspondence.

2.3.6 U.S. FISH AND WILDLIFE SERVICE MANAGED LANDS

On March 6, 2014, E3 initiated consultation with the USFWS seeking information relating to the presence or absence of USFWS managed land within the survey corridor, which includes the DPS. The USFWS response is pending.

SECTION 3: NEED FOR FACILITY

3.1 ANALYSIS OF NEED BASED ON PRESENT AND PROJECTED DEMAND, INCLUDING SYSTEM STUDIES

The DPS will be a supporting facility to the Pipeline, refer to the Application as filed.

SECTION 4: SITING CRITERIA ANALYSIS

4.1 FACTORS TO BE CONSIDERED IN EVALUATING APPLICATIONS AND DESIGNATIONS OF SITES, CORRIDORS AND ROUTES (NDCC 49-22-09)

Available Research and Investigation Relating to the Effects of the Location, Construction, and Operation of the Proposed Facility on Public Health and Welfare, Natural Resources and the Environment:

Field surveys did not identify cultural or natural resources at the DPS site. The DPS will provide storage for oil that would otherwise be transported via truck or rail for distribution thus decreasing the volume of traffic throughout the region. The DPS would not have a negative impact on the public health or welfare.

The Effects of New Energy Conversion and Transmission Technologies and Systems Designed to Minimize Adverse Environmental Effects:

Refer to the Application as filed.

Adverse Direct and Indirect Environmental Effects which cannot be Avoided Should the Proposed Site or Route be Designated:

Refer to the Application as filed.

Alternatives to the proposed corridor or route which are developed during the hearing process and which minimize adverse effects:

Refer to the Application as filed.

Irreversible and irretrievable commitments of natural resources should the proposed corridor and route be designated:

Refer to the Application as filed.

Direct and Indirect Economic Impacts of the Proposed Facility:

Refer to the Application as filed.

Existing Plans of the State, Local Government, and Private Entities for Other Developments at or in the Vicinity of the Proposed Route:

Refer to the Application as filed.

The Effect of the Proposed Route on Existing Scenic Areas, Historic Sites and Structures and Paleontological or Archaeological Sites:

No scenic areas, historic areas, structures or paleontological or archaeological sites were identified at the DPS site.

The Effect of the Proposed Route on Areas Which are Unique Because of Biological Wealth or Because they are Habitats for Rare and Endangered Species:

The proposed Project is not anticipated to result in permanent adverse impacts to the environment.

Problems Raised by Federal Agencies, Other State Agencies and Local Entities:

Refer to the Application as filed.

4.2 EXCLUSION AREAS (NAC 69-06-08-02.1)

Exclusion areas are geographical areas that should be excluded in the consideration of a route for a transmission facility. The following table and text identify and discuss exclusion areas identified along the proposed Route.

Exclusion Area	Crossed by Proposed Route
Federal	
National Parks or Memorial Parks	No
Historic Sites or Landmarks	No
Natural Landmarks or Monuments	No
Wilderness Areas	No
State	
Historic Sites, Monuments, or Historical Markers;	No
Archaeological Sites	No
Parks	No
Nature Preserves	No
County	
Parks	No
Recreation Areas	No
Municipal Parks	No
Other	
Areas Critical to the Life Stages of Threatened or Endangered Animal or Plant Species	No
Areas where Animal or Plant Species that are Unique or Rare to this State would be Irreversibly Damaged	No
Areas within 1,200 feet of a geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	No
Areas within 30 feet on either side of a direct line between (ICBM) launch or launch control facilities to avoid microwave interference.	No

4.2.1 FEDERAL RESOURCE REVIEW

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.2 STATE RESOURCE REVIEW

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.3 COUNTY RESOURCE REVIEW

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.4 AREAS CRITICAL TO THE LIFE STAGES OF THREATENED AND ENDANGERED ANIMAL OR PLANT SPECIES

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.5 AREAS WHERE ANIMAL OR PLANT SPECIES THAT ARE UNIQUE OR RARE TO THIS STATE WOULD BE IRREVERSIBLY DAMAGED

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.6 AREAS WITHIN 1,200 FEET OF THE GEOGRAPHIC CENTER OF AN ICBM LAUNCH OR LAUNCH CONTROL FACILITY

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.2.7 AREAS WITHIN 30 FEET ON EITHER SIDE OF A DIRECT LINE BETWEEN ICBM LAUNCH OR LAUNCH CONTROL FACILITIES TO AVOID MICROWAVE INTERFERENCE

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3 AVOIDANCE AREAS (NAC 69-06-08-02.2)

Avoidance areas are geographical areas that shall not be considered in the routing of a transmission facility unless, under the circumstances, it is shown there is no reasonable alternative. The following table and text identify and discuss avoidance areas crossed by the proposed Route.

Avoidance Area	Crossed by Proposed Route
Federal	
Historic Districts	No
Wildlife Areas	No
Wild, Scenic or Recreational Rivers	No
Wildlife Refuges	No
Grasslands	No
State	
Wild, Scenic or Recreational Rivers	No
Game Refuges or Game Management Areas	No
Forests or Forest Management Lands	No
Grasslands	No
Other	
Historic Resources not meeting Exclusion Areas criteria	No
Areas of Known Geologic Instability	No
Areas within 500-Feet of a Residence, School, or Place of Business	No
Reservoirs and Municipal Water Supplies	No
Water Sources for Organized Rural Water Districts	No
Irrigated Land (not applicable to underground facilities)	N/A
Areas of Recreational Significance which are not designated as Exclusion Areas	No

4.3.1 FEDERAL RESOURCE REVIEW

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3.2 STATE RESOURCE REVIEW

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3.3 HISTORICAL RESOURCES NOT MEETING EXCLUSION AREA CRITERIA

No cultural or historical resources were identified during field survey; refer to Appendix D for the Cultural Resource Report.

4.3.4 AREAS OF KNOWN GEOLOGIC INSTABILITY

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3.5 AREAS WITHIN 500-FEET OF A RESIDENCE, SCHOOL OR PLACE OF BUSINESS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application. Landowner waivers collected to date are included in this filing.

4.3.6 RESERVOIRS AND MUNICIPAL WATER SUPPLIES

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3.7 WATER SOURCES FOR ORGANIZED RURAL WATER DISTRICTS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.3.8 IRRIGATED LAND

This criterion does not apply to underground transmission facilities; as such, it is not applicable to this project.

4.3.9 AREAS OF RECREATIONAL SIGNIFICANCE WHICH ARE NOT DESIGNATED AS EXCLUSION AREAS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.4 SELECTION CRITERIA (NAC 69-06-08-02.3)

The selection criteria require a study of environmental impacts and changes in land use that may result from the siting of the proposed Project. By avoiding ground-disturbing activities outside of MMC-owned facilities, MMC will avoid all negative effects with respect to the selection criteria.

4.4.1 AGRICULTURAL IMPACTS

Agricultural Production: The DPS expansion will not have a significant effect on agricultural production, as it is located in an area previously developed for oil production.

Family Farms and Ranches: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Lands Suitable for Irrigation: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Surface Drainage: Grading will occur to allow for the siting and construction of the storage tank. Permanent impacts to surface drainage will be minimized to the maximum extent possible. DPS site drainage will be designed in a manner in which impacts to adjacent properties are not altered from pre-construction conditions.

Ground Water: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.4.2 THE IMPACTS UPON OTHER RESOURCES

Noise-Sensitive Land Uses: The Project is located in a rural setting, effectively isolating it from the majority of sensitive receptors. Once in operation noise from the DPS should not exceed 20% of the ambient noise level.

Visual Effect on Adjacent Areas: In addition to the existing storage tank at the DPS one aboveground storage tank, associated pumps and secondary containment, and facility fencing will be constructed. Other oil development is occurring in proximity to the DPS as such visual impacts associated with the addition of one storage tank is minimal in this landscape.

Extractive and Storage Resources: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Wetlands, Woodlands and Wooded Areas: No wetlands, woodlands or wooded areas were observed during field survey of the DPS.

Radio and Television Reception, and other Communication or Electronic Control Facilities: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Human Health and Safety: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Animal Health and Safety: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

Plant Life: Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5 POLICY CRITERIA (NAC 69-06-08-02.4)

4.5.1 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.2 LOCATION AND DESIGN

The DPS is located approximately 17-miles northwest of Alamo, ND. Storage tanks and associated containment structures will meet DOT regulations; the tank will be constructed to meet API 650 Standards. Appendix A contains site location maps and grading plans.

4.5.3 TRAINING AND UTILIZATION OF AVAILABLE LABOR IN THIS STATE FOR THE GENERAL AND SPECIALIZED SKILLS REQUIRED

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.4 ECONOMIES OF CONSTRUCTION AND OPERATION

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.5 USE OF CITIZEN COORDINATING COMMITTEES

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.6 COMMITMENT OF A PORTION OF THE TRANSMITTED PRODUCT FOR USE IN THIS STATE

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.7 LABOR RELATIONS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.8 THE COORDINATION OF FACILITIES

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.9 MONITORING OF IMPACTS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.10 UTILIZATION OF EXISTING AND PROPOSED ROW AND CORRIDORS

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

4.5.11 OTHER EXISTING OR PROPOSED TRANSMISSION FACILITIES

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

SECTION 5: MITIGATIVE MEASURES

5.1 LOCATION

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

5.2 CONSTRUCTION

Construction of the DPS expansion will be done in accordance with all applicable local, state and federal regulations.

5.3 OPERATION

Once in operation, inspections and maintenance of the DPS will be done in compliance with DOT regulations.

**SECTION 6: DESCRIPTION OF RIGHT-OF-WAY PREPARATION, CONSTRUCTION
AND RECLAMATION PROCEDURES**

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

**SECTION 7: EASEMENT, ACQUISITION, LANDOWNER NOTIFICATION AND
EASEMENT COMPENSATION PLAN**

**7.1 LANDOWNER INFORMATION REGARDING EASEMENT ACQUISITION, AND
NECESSARY EASEMENT CONDITIONS AND RESTRICTIONS**

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

7.2 COMPENSATION POLICY

Refer to the Application as filed; no changes have resulted from the addition of the DPS expansion to the Application.

SECTION 8: LIST OF PREPARERS

John Millar

Vice President-Liquids Group
Summit Midstream

Mr. Millar is Vice President, Liquids Group for Summit Midstream and is responsible for developing liquid pipeline commercial opportunities and for managing Summit's liquid pipeline assets. Prior to joining Summit Midstream, Mr. Millar was Vice President and General Manager of Genesis Energy, L.P.'s pipeline, terminal, and trucking businesses, responsible for improving safety, operating efficiency, and service quality and for developing growth projects involving liquid pipeline facilities, marine terminals, rail facilities, and truck stations. Prior to joining Genesis, Mr. Millar held numerous positions in engineering, project management, field operations, control center operations, joint ventures, and business development for Chevron Pipe Line Company, EOTT Energy, Unocal Corporation, and Enbridge Energy Partners. Mr. Millar has over 28 years of experience in nearly all aspects of the oil pipeline industry and holds BS and MS degrees in Civil Engineering from the University of California and an MBA from the University of Houston. Mr. Millar is a licensed Civil Engineer in the State of California.

William McCarthy, C.W.B.

Senior Environmental Compliance Analyst
E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

M.S. Wildlife Biology, University of Minnesota – Twin Cities; and B.S. Wildlife Biology, Michigan State University. Mr. McCarthy is an environmental compliance analyst with 15 years of environmental consulting experience working with various energy assets and regulatory agencies. As a compliance analyst, he has managed the environmental requirements for facility siting, pipeline routing, federal licensing and various federal, state and local permits. Mr. McCarthy is a certified wildlife biologist, in this role conducts, and coordinates field studies, agency consultations, mitigation and avoidance plans.

Katie Schmidt, EIT

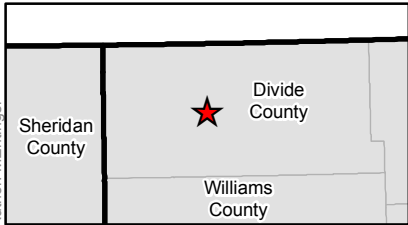
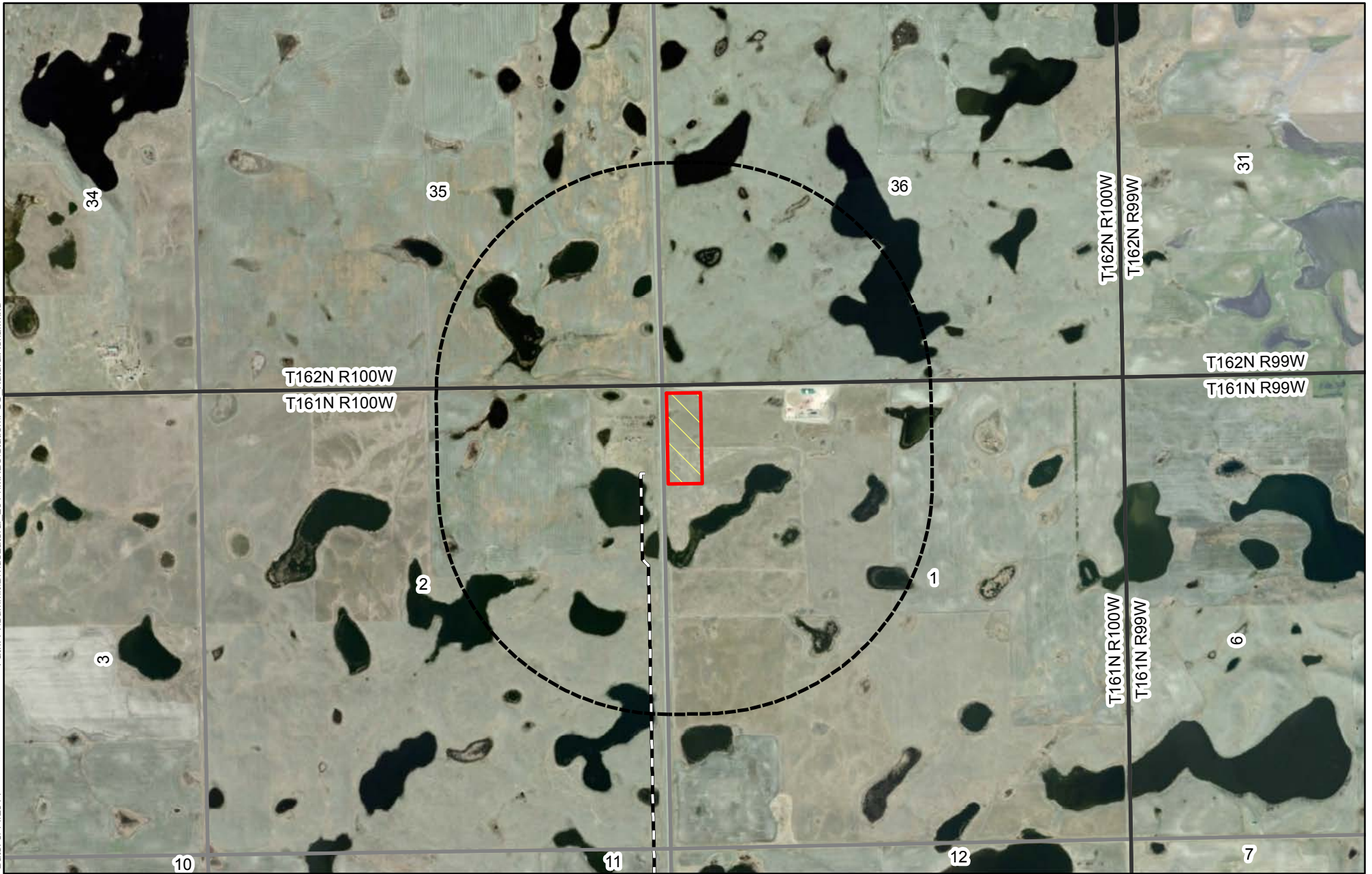
Environmental Engineer and Senior Consultant
E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

B.S. Civil Engineering with an emphasis in Environmental Engineering-Iowa State University. Ms. Schmidt is a Senior Environmental Consultant with 8 years of experience working with various energy assets and regulatory agencies. As a consultant, she has managed multiple pipeline projects supporting clients through the construction permitting and siting processes, which included coordination with various federal, state and local agencies.

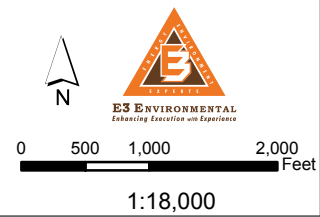
Appendix A

Project Maps/Site Plans

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Date: 5/14/2014



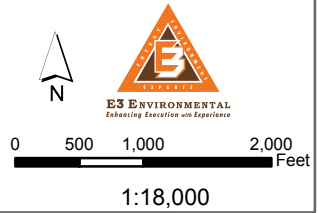
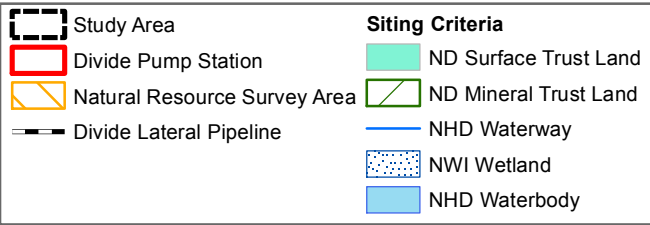
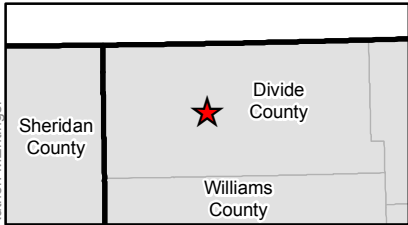
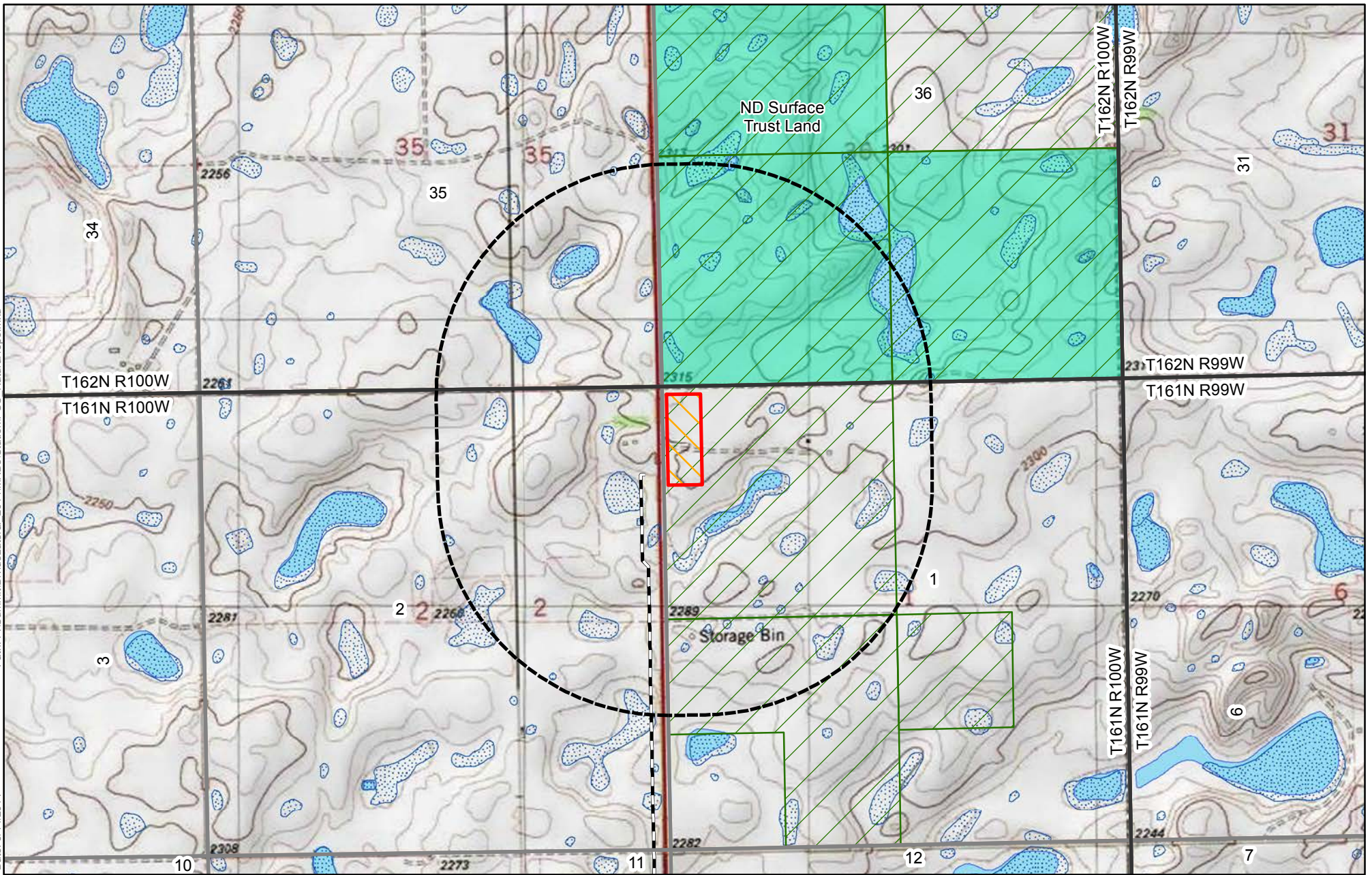
- Study Area
- Divide Pump Station
- Natural Resource Survey Area
- Divide Lateral Pipeline



**Meadowlark Midstream
Company, LLC**
Divide Pump Station
Siting Criteria
Natural Resource - Aerial Map
Divide County, North Dakota

Author: MEntinger

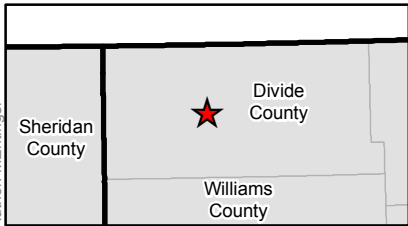
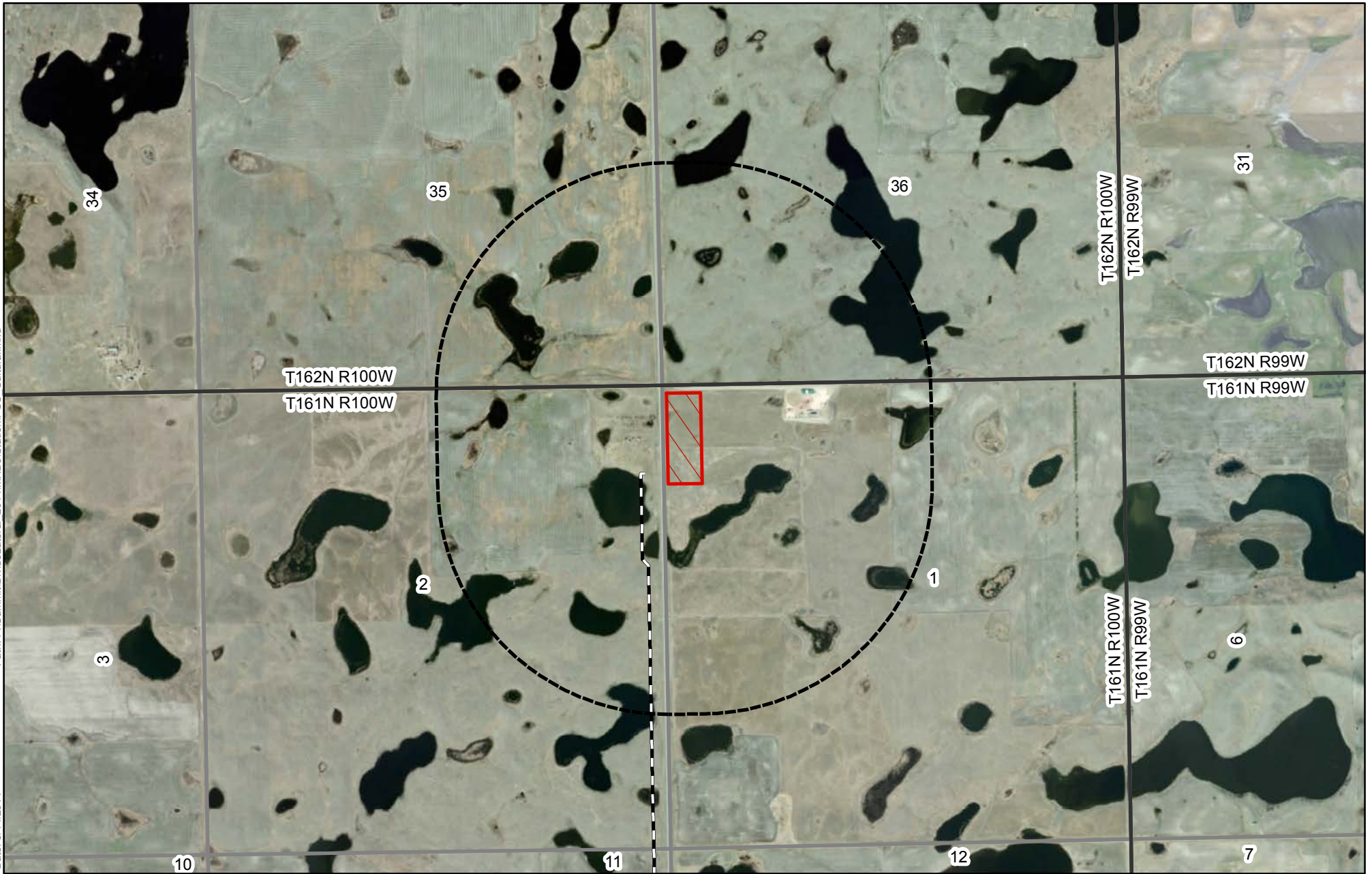
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Date: 5/14/2014







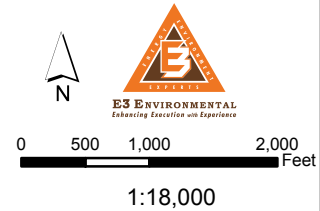
Meadowlark Midstream Company, LLC
Divide Pump Station

Siting Criteria
Natural Resource - Topo Map
Divide County, North Dakota

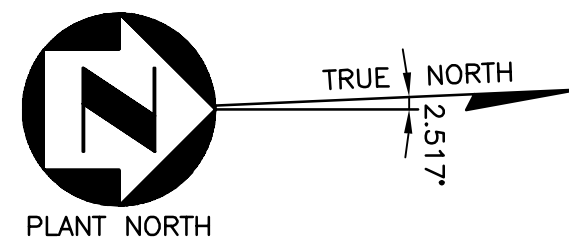
Author: MEntinger



-  Class I Cultural Survey Area
-  Class III Cultural Survey Area
-  Divide Pump Station
-  Divide Lateral Pipeline

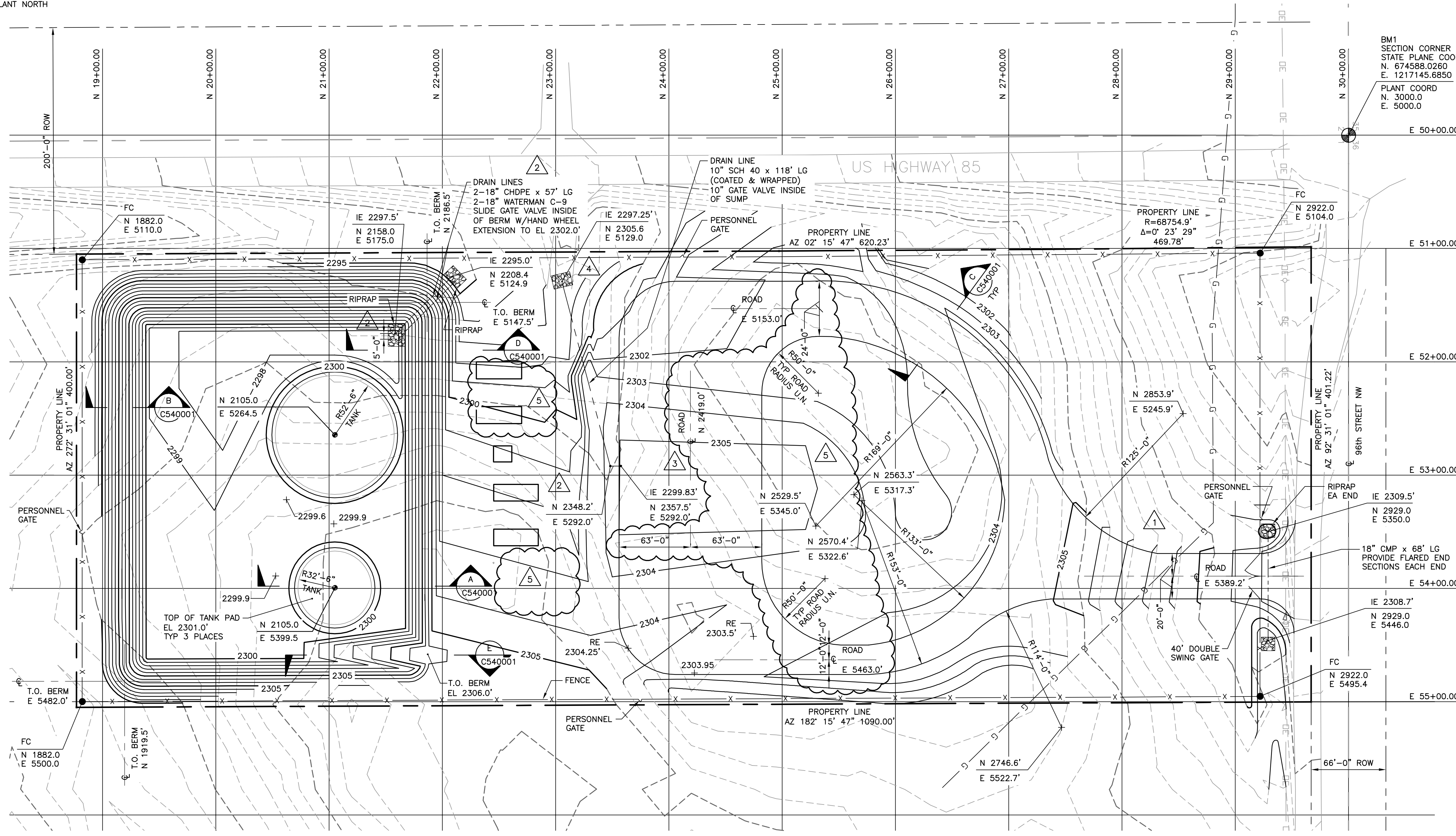


Meadowlark Midstream Company, LLC
 Divide Pump Station
 Siting Criteria
 Cultural Resource Map
 Divide County, North Dakota

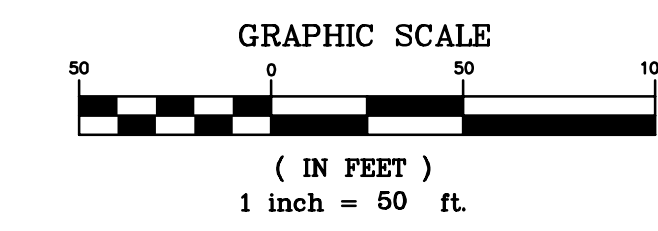


LEGEND

- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- NEW MAJOR CONTOURS
- NEW MINOR CONTOURS
- - - PROPERTY LINE
- x - FENCE
- FC FENCE CORNER
- IE INVERT ELEVATION
- CMP CORRUGATED METAL PIPE



BM1 SECTION CORNER
STATE PLANE COORD
N. 674588.0260
E. 1217145.6850
PLANT COORD
N. 3000.0
E. 5000.0



PLAN

NOTES:
 1. BASIS OF BEARING FOR GRID SYSTEM IS BASED ON EAST-WEST SECTION LINE ON NORTH SIDE OF PROPERTY.
 2. SITE LOCATION AND EXISTING CONTOURS FROM SURVEY PROVIDED BY SUMMIT MIDSTREAM. THE PROPERTY IS LOCATED WITHIN THE NW¼ OF THE NW¼ OF SECTION 11, T16N, R100W, 5th PM.
 3. ALL ELEVATIONS AND GRADE CONTOURS ARE FINAL GRADE.
 4. FOR GENERAL NOTES SEE DRAWING S530002.
 5. FOR FENCE DETAILS SEE DRAWING C540002.

REV	DESCRIPTION	DATE	BY	APPROVED

REV	DESCRIPTION	DATE	BY	APPROVED
5A	REVISED ROADS & ADDED SKIDS - INTERNAL REVIEW	7/31/14	JK	
4	REVISED DRAIN LINE LOCATIONS	5/1/14	JK	BLB
3	REVISED GRADING/DRAINLINE, ADDED FDN	4/4/14	JK	BLB
2	REVISED DRAINLINE, ADDED FDN	1/29/14	JK	BL
1	REVISED GRADING TO REDUCE CUT/FILL	1/17/14	JK	GTB
0	ISSUED FOR CONSTRUCTION	10/7/13	RW	

DRAWING NUMBER: CONFIDENTIAL
 REFERENCE DRAWINGS:



DATE	BY
9/10/13	BB
10/8/13	BL
10/8/13	BL
10/8/13	JS

DATE	BY
9/10/13	BB
10/8/13	BL
10/8/13	BL
10/8/13	JS

PRELIMINARY
NOT FOR CONSTRUCTION

Harris Group Inc.
ENERGY 61431

SME OIL TERMINAL
CIVIL
SITE AND GRADING PLAN

CAD FILE	SCALE	DRAWING NUMBER	REV
C542001.DWG	1"=50'-0"	C542001	5A

Appendix B

Consultations



July 1, 2014

Paul Picha
Chief Archaeologist
State Historical Society of North Dakota
Archeology & Historic Preservation Division
North Dakota Heritage Center
612 East Boulevard Avenue
Bismarck, ND 58505-0830

RE: Meadowlark Midstream Company, LLC: Divide Pump Station Cultural Resource Inventory

Dear Mr. Picha,

Meadowlark Midstream Company, LLC (MMC) is planning the Divide Pump Station (DPS). The DPS will provide storage support for the Little Muddy Creek Pipeline Project. The Project will be wholly located in Divide County, North Dakota. E3 Environmental, LLC (E3), MMC's Environmental Consultant, is preparing the required application materials for the NDPSC; a cultural resource inventory is a required part of this filing.

E3 submits the enclosed report titled *A Class I and Class III Cultural Resource Inventory of the Meadowlark Midstream Company, MMC, Divide Pump Station, Divide County, North Dakota* (Report). This Report, prepared by SWCA Environmental Consultants (SWCA) documents the results of the cultural resource inventory conducted for the proposed Project. Inventory efforts did not identify any previously recorded or new cultural resources. Subsequently, SWCA recommended a determination of *No Significant Sites Affected and No Historic Properties Affected* be granted for the project to proceed as planned.

Upon review should you have any questions please contact Katie Schmidt with E3 at 651-282-0652.

Sincerely,

Katie Schmidt, Senior Consultant
E3 Environmental, LLC

Enclosures: Cultural Resource Inventory Report-MMC Divide Pump Station

Appendix C

Natural Resource Report

**Natural Resources and Wetland
Determination Report for the
Meadowlark Midstream, LLC,
Divide Pump Station,
Divide County, North Dakota**

Prepared for

E3 Environmental, LLC

On behalf of

Meadowlark Midstream, LLC

Prepared by

SWCA Environmental Consultants

May 2014

**Natural Resources and Wetland Determination Report
for the Meadowlark Midstream, LLC, Divide Pump Station,
Divide County, North Dakota**

Prepared for:

**E3 Environmental, LLC
871 Jefferson Avenue
St. Paul, Minnesota 55102**

On behalf of:

**Meadowlark Midstream, LLC
1512 Larimer Street, Suite 540
Denver, CO 80202**

Prepared by:

**Dillon Belisle, B.S., and Kate Kenninger, M.S.
Environmental Specialists**

Reviewed by:

**Tom Furgason
Principal**

**SWCA Environmental Consultants
116 North 4th Street, Suite 200
Bismarck, North Dakota 58501
(701) 258-6622, Fax (701) 258-5957**

SWCA Project No. 29473

May 21, 2014

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1.0 INTRODUCTION

1.1 BACKGROUND

Meadowlark Midstream, LLC, (Meadowlark), proposes to construct a 9.5-acre compressor station (pump station) to facilitate the movement of oil and gas through the pipeline. SWCA Environmental Consultants (SWCA) was selected by E3 Environmental, LLC (E3) to conduct natural resources field surveys in order to identify exclusion and avoidance areas as specified in North Dakota Administrative Code (NDAC) 69-06-08-02 for the proposed pump station.

SWCA conducted field surveys of a 9.5-acre survey block on April 25, 2014, to determine the potential presence and extent of wetlands and waterbodies, including jurisdictional waters of the U.S., commonly referred to as wetland and ordinary high water mark (OHWM) delineations, within the proposed survey area. Concurrently with the wetland determination, SWCA conducted a cursory threatened and endangered species and habitat evaluation; a tree, sapling, and shrub enumeration survey; and a noxious weed survey. Site layout maps of the survey area and natural resource features identified during the field surveys are provided in Appendix A.

This report outlines the methodology used by SWCA ecologists to complete each of the aforementioned surveys. Additionally, this report presents the results of the completed field surveys and regulatory recommendations to ensure compliance with the North Dakota Public Service Commission (NDPSC) and the U.S. Army Corps of Engineers (USACE).

1.2 REGULATORY BACKGROUND

1.2.1 Clean Water Act, Section 404

Section 404 of the Clean Water Act prohibits the discharge of fill material into waters of the U.S., also known as jurisdictional waters, without a permit from the USACE.

1.2.2 USACE Regional Conditions

The USACE has published several regional conditions for projects operating under Nationwide Permits in North Dakota. The regional conditions apply to wetlands classified as “fens,” waters adjacent to natural springs, the Missouri River, historic properties, and fish spawning areas.

2.0 METHODS

2.1 GENERAL LANDSCAPE CHARACTERIZATION

Overall, northwest North Dakota is characterized by a moderate to cool climate, with cold, dry winters and mild to warm summers. Mean annual precipitation for the area is 14 to 16 inches (Bryce et al. 1998).

The proposed project is located in the Great Plains (level I) ecoregion. Further, the proposed project is located in the West-Central Semi-Arid Prairies (level II) ecoregion, Northwestern

Glaciated Plains (level III) ecoregion, and the Northern Missouri Coteau (level IV). These ecoregions are characterized by unglaciated topography, complex stream drainages, and susceptibility to erosion. Figure 1 is an overview of the project area (additional photos of project area in Appendix C). Primary land uses are grazing, small grain agriculture, and recreation (Bryce et al. 1998).



Figure 1. Project area overview depicting general topography, facing southwest (photo taken April 25, 2014).

The inventoried area for the project area discussed herein is situated on the U.S. Geological Survey Colgan SE (1984), North Dakota, quadrangle. The inventoried area is located in Lot 4 of Section 1, Township (T) 161 North (N), Range (R) 100 West (W) (see Appendix A).

2.2 WETLANDS

National Wetland Inventory (NWI) mapping for the region does not indicate the presence of wetlands in the survey area however does indicate the presence of wetlands in the surrounding area (U.S. Fish and Wildlife Service [USFWS] 2012a). SWCA ecologists conducted wetland determinations, within the survey area, based on the principles and guidelines provided in the 1987 Corps of Engineers Wetlands Delineation Manual (Manual) (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetlands Determination Manual: Great Plains Region Version 2.0* (Supplement) (USACE 2010). According to the Manual, an area is a wetland if three mandatory wetland indicators are present in a given area, with special exceptions. These criteria include the presence of hydrophytic vegetation,

wetland hydrology, and hydric soils. During wetland determinations SWCA recorded indicators of hydrology and hydrophytic vegetation.

2.2.1 Hydrophytic Vegetation

Ecologists recorded all plants within the vegetative community based on the respective stratum in which each species occupied. A tree is defined by the Supplement to be a woody-stemmed plant with a trunk diameter at breast height (DBH) of equal to or greater than 3 inches, regardless of height. The sapling and shrub stratum is defined by the Supplement to be composed of woody-stemmed plants with a trunk DBH of less than 3 inches, regardless of height. The herbaceous stratum includes all non-woody-stemmed plants regardless of height. Finally, the woody vine stratum includes all woody-stemmed vines, regardless of diameter.

SWCA recorded the binomial scientific name and percent cover of all plants within a 30-foot radius for the tree stratum, a 15-foot radius for the sapling/shrub stratum, a 5-foot radius for the herbaceous stratum, and a 30-foot radius for the woody vine stratum. SWCA ecologists noted each plant species' respective USFWS indicator status (i.e., upland [UPL], facultative upland [FACU], facultative [FAC], facultative wetland [FACW], and obligate [OBL]). In some instances the size and shape of the vegetative sampling plot was manipulated to better encompass each wetland or upland area, though the overall area assessed remained unchanged. Vegetation communities met the hydrophytic vegetation criterion for wetlands if greater than 50% of dominant species had an indicator status of FAC, FACW, and OBL. SWCA also noted and geospatially referenced all populations of North Dakota state- or county-listed noxious weeds identified within the survey area.

2.2.2 Wetland Hydrology

A wetland was determined to contain wetland hydrology if at least one primary indicator or at least two secondary indicators of wetland hydrology were present, as defined by the Manual and Supplement. Common hydrologic indicators include the presence of surface water, high water table, soil saturation, water marks on trees or other objects, sediment deposits, water-stained leaves, and oxidized rhizospheres on living roots.

2.3 WATERBODIES

Waterbodies (i.e., ponds, creeks, streams, rivers) were identified by the presence of an OHWM. Common identifiable indicators of an OHWM include open water or evidence of a clear, natural line visible on the bank; shelving; changes in soil characteristics; the destruction of terrestrial vegetation; the presence of litter and debris; and watermarks on structures that are inundated during normal high water conditions. The OHWM typically represents the potential limits of the USACE jurisdiction. Please note that the USACE has full discretion in determining the jurisdictional status of referenced wetlands and waterbodies.

SWCA classified streams as perennial, intermittent, or ephemeral based on field observations. During a typical year, a perennial stream contains flowing water year-round and the water table is located above the stream bed. Groundwater is the primary water source for stream flow while precipitation runoff is supplemental. Ecologists classified streams that showed

significant flow during the field survey or were named or designated as solid blue lines on the U.S. Geological Survey topographic maps as perennial.

An intermittent stream has flowing water for only portions of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

2.4 TREE, SAPLING, AND SHRUB COUNT

SWCA ecologists determined the total number of trees, saplings, and shrubs present within the survey area by employing several different techniques depending on the type of woody vegetation habitat (i.e., forested upland, shrubland, or shelterbelt) encountered and the overall extent of each habitat within the right-of-way. The boundary of all forested upland, shrubland, and shelterbelt habitat was geographically referenced using a Trimble GeoXT series handheld global positioning system (GPS) unit. In forested uplands/wetlands and shrubland habitat, SWCA counted or estimated the number of all woody-stemmed vegetation with a DBH of ≥ 1 inch. In shelterbelt areas, all woody-stemmed vegetation, regardless of DBH, was inventoried via direct count. Ecologists taxonomically identified all recorded individuals to the species level within each habitat type.

2.5 WILDLIFE, INCLUDING THREATENED AND ENDANGERED SPECIES

Prior to conducting field surveys, SWCA reviewed information obtained from the USFWS list of threatened and endangered species by North Dakota county (USFWS 2014) regarding the presence of threatened or endangered species that may occur within the survey area. This document does not represent a comprehensive survey, but rather acknowledges the past and/or current presence of listed species. The lack of discovery of threatened or endangered species does not signify their non-existence within the area, but only that no primary or secondary indications of these species were recorded. SWCA completed a random survey for all listed species and suitable habitat.

A line-of-sight binocular survey for raptor species was also conducted for a distance of approximately 0.5 mile. SWCA ecologists noted all wildlife observed during the field survey. Wildlife sightings can involve primary observations (i.e., actual sighting of an animal) or secondary observations (i.e., observation of scat, tracks, or fur deposits).

2.6 MAPPING

The boundaries of each wetland, waterbody, woody vegetation habitat, and noxious weed assemblage were geographically recorded using a Trimble GeoXT GPS unit. The aforementioned GPS unit is capable of recording geographic data with sub-meter accuracy. SWCA used Universal Transverse Mercator Zone 13 North as the projected coordinate

system and North American Datum 1983 as the datum. ArcGIS v10.0 (ESRI Redlands, California) was used to analyze recorded features, calculate areas, and generate the maps provided in Appendix A. Please note that all data collected using the GPS unit, and displayed on the attached maps, are for review purposes only and do not represent a professional civil survey.

3.0 RESULTS

3.1 VEGETATION

During the field survey, SWCA ecologists identified the area that had already been constructed, and little vegetation remained in the area. The one general type of vegetative community included herbaceous upland within the survey area.

Vegetation communities met the hydrophytic vegetation criterion for wetlands if greater than 50% of dominant species had an indicator status of FAC, FACW, or OBL. The upland communities failed to meet at least one of the three assessed wetland criteria.

3.1.1 Herbaceous Upland

Herbaceous upland communities in the survey area consisted of non-wetland areas dominated by non-woody vegetation such as grasses and forbs.

Species confirmed during field surveys were primarily introduced non-native grasses including Kentucky bluegrass (*Poa pratensis*), smooth brome (*Bromus inermis*), and crested wheatgrass (*Agropyron cristatum*).

3.1.2 Shrubland and Woody Vegetation

No shrubland and/or woody vegetation was identified by SWCA ecologists within the survey area.

3.1.3 Cropland

No cropland was identified by SWCA ecologists within the survey area.

3.1.4 Wetland

No aquatic vegetation was identified by SWCA ecologists within the survey area. The nearest NWI is a 3.6-acre freshwater emergent wetland, approximately 325 feet southwest from the proposed project location (USFWS 2012a).

3.2 HYDROLOGY

According to National Weather Service preliminary climatological data for Williston, North Dakota, 0.95 inch of precipitation was recorded from February 1 through April 25, 2014 (Table 1). This amount is 0.93 inch below normal for this time period.

Table 1. Monthly Recorded Rainfall at National Weather Service Station in Williston, North Dakota.

Month	2014 Recorded Precipitation (inches)	Normal Precipitation (inches)	Difference (inches)
February 2014	0.26	0.39	-0.13
March 2014	0.32	0.71	-0.39
April 1–25, 2014	0.37	0.78	-0.41
Total	0.95	1.88	-0.93

Source: National Oceanic and Atmospheric Administration 2014.

3.3 WETLANDS

No indicators of hydrophytic vegetation (section 2.2.1) or wetland hydrology (section 2.2.2) were identified by SWCA ecologists within the survey area.

3.4 WATERBODIES

No waterbodies were identified by SWCA ecologists within the survey area.

3.5 SOILS

Three soil types are present in the project construction corridor, based on Natural Resources Conservation Service (NRCS) mapping (NRCS 2013) (Table 2; Appendix B). Soil profile characteristics were unavailable due to previously disturbed conditions, therefore field soil pits were not used to validate the mapped soil. The project area analyzed for soils covers the 9.5-acre survey block. The following soil component descriptions represent the most prevalent soil series found within the survey area (NRCS 2013). All mapped soils are classified as predominantly non-hydric, as indicated by the hydric rating (Table 2) (NRCS 2013). The hydric rating is the percentage of each map unit classified as being hydric.

Table 2. NRCS Derived Soil Series Present within the ROW.

Soil Types	Slope (%)	Hydric Rating	Area (Acres)	Percent within Map Unit
Wabek-Lehr complex	2 to 6	7	3.40	36.44
Zahl-Williams-Zahill complex	6 to 9	4	3.17	33.98
Williams-Zahl loams	3 to 6	3	2.76	29.58
Total			9.33	100.00

Source: NRCS 2013.

3.5.1 Wabek

The Wabek series consists of very deep, excessively drained, rapidly and very rapidly permeable soils formed in sand and gravel glaciofluvial deposits. These soils are on outwash plains, beach ridges, terraces, and terrace escarpments and have slopes of 0 to 45 percent. The

mean annual precipitation found throughout the spatial extent of this soil type is 16 inches and mean annual air temperature is 42 degrees Fahrenheit (°F). These soils are used mainly for range and pasture. Native vegetation is blue grama (*Bouteloua gracilis*), upland sedges (*Carex* spp.), western wheatgrass (*Pascopyrum smithii*), needle and thread (*Hesperostipa comata*), and forbs (NRCS 2013).

3.5.2 Lehr

The Lehr series consists of very deep, somewhat excessively drained soils that formed in loamy alluvium over sand and gravel. Permeability is moderate or moderately rapid in the upper part and rapid or very rapid in the substratum. These soils are on outwash plains and stream valley terraces and have slopes ranging from 0 to 25 percent. The mean annual precipitation found throughout the spatial extent of this soil type is 14 inches and mean annual air temperature is 40°F. Where cultivated, small grains, corn, and hay are the principal crops. In pastures, the native vegetation consists of mid and short prairie grasses such as western wheatgrass, blue grama, and upland sedges (NRCS 2013).

3.5.3 Zahl

The Zahl series consists of very deep, slowly permeable, well-drained soils found on glacial till plains, moraines, and valley side slopes at approximately 1 to 60 percent. The mean annual precipitation found throughout the spatial extent of this soil type is approximately 14 inches and mean annual air temperature is approximately 40°F. This soil type is largely used for rangeland foraging. Native vegetation species common to this soil type include western wheatgrass, little bluestem (*Schizachyrium scoparium*), and needle and thread (NRCS 2013).

3.5.4 Williams

The Williams series consists of very deep, slowly permeable, well-drained soils found on glacial till plains and moraines with slopes at approximately 0 to 35 percent. The mean annual precipitation found throughout the spatial extent of this soil type is approximately 14 inches and mean annual air temperature is approximately 42°F. This soil type is largely used for cultivation. Native vegetation species common to this soil type include western wheatgrass, needle and thread, blue grama, and green needlegrass (*Nasella viridula*) (NRCS 2013).

3.5.5 Zahill

The Zahill series consists of very deep, well-drained soils that formed in till and are found on till plains, hills, moraines, and escarpments. Slopes are 0 to 65 percent. The mean annual precipitation found throughout the spatial extent of this soil type is approximately 13 inches and mean annual air temperature is approximately 42°F. This soil type is used in mainly range and dryland crops. Native vegetation species common to this soil type include western wheatgrass, needle and thread, green needlegrass, little bluestem, prairie sandreed (*Calamovilfa longifolia*), bluebunch wheatgrass (*Pseudoroegneria spicata*), prairie junegrass (*Koeleria macrantha*), blue grama, sedges and other forbs (NRCS 2013).

3.6 TREE, SAPLING, AND SHRUB COUNT

No trees, saplings, or shrubs were identified by SWCA ecologists within the survey area.

3.7 WILDLIFE

Several wildlife species that may exist in Divide County are listed as threatened or endangered under the Endangered Species Act (ESA) (16 United States Code 1531 et seq.). According to the USFWS, listed species in Divide County, North Dakota, include the gray wolf (*Canis lupus*), whooping crane (*Grus americana*), piping plover (*Charadrius melodus*), northern long-eared bat (*Myotis septentrionalis*), and Sprague's pipit (*Anthus spragueii*) (USFWS 2014). SWCA conducted a cursory threatened and endangered species survey concurrently with the wetland determination. Ecologists did not observe any primary (i.e., actual sighting) or secondary (tracks, scat, fur, feathers, etc.) indication of the presence of threatened or endangered species.

The proposed project would have no effect on gray wolf, or designated critical habitat for piping plover. Whooping crane and piping plover have the potential to occur within the project area as migrants. As a result, these species may be, but are not likely to be adversely, affected by the proposed project. The proposed project is not likely to jeopardize the Sprague's pipit and northern long-eared bat.

SWCA ecologists did not observe any raptor or raptor nests during the survey.

3.7.1 Gray Wolf

Federal Status: Endangered

Affects Determination: No Effect

The gray wolf, listed as endangered in the United States in 1978, was believed extirpated from North Dakota in the 1920s and 1930s, with only sporadic reports from the 1930s to present (Licht and Huffman 1996; USFWS 1978). The presence of wolves in most of North Dakota consists of occasional dispersing animals from Minnesota and Manitoba (Licht and Fritts 1994; Licht and Huffman 1996). Most documented gray wolf sightings within western North Dakota are believed to be young males seeking to establish territory (Hagen et al. 2005). The Turtle Mountain region of north-central North Dakota provides marginal habitat that may be able to support a very small population of wolves. The closest known pack of wolves is the Minnesota population located approximately 17 miles (28 kilometers [km]) from the northeast corner of North Dakota.

The gray wolf uses a variety of habitats that support a large prey base, including montane and low-elevation forests, grasslands, and desert scrub (USFWS 2013a). Due to a lack of forested habitat and distance from Minnesota and Manitoba populations, as well as the troubled relationship between humans and wolves and their vulnerability to being shot in open habitats (Licht and Huffman 1996), the re-establishment of gray wolf populations in North Dakota is unlikely. Additionally, habitat fragmentation may further act as a barrier against wolf recolonization in western North Dakota. Therefore, the proposed project would have **no effect** on the gray wolf.

3.7.2 Whooping Crane

Federal Status: Endangered

Affect Determination: May Affect, Is Not Likely to Adversely Affect

The whooping crane was listed as endangered in 1970 in the United States by the USFWS and in 1978 in Canada. Historically, population declines were caused by shooting and destruction of nesting habitat in the prairies from agricultural development. Current threats to the species include habitat destruction, especially suitable wetland habitats that support breeding and nesting, as well as feeding and roosting during their fall and spring migration (Canadian Wildlife Service and USFWS 2007).

The July 2010 total wild population was estimated at 383 (USFWS 2013bc). There is only one self-sustaining wild population, the Aransas-Wood Buffalo National Park population, which nests in Wood Buffalo National Park and adjacent areas in Canada, where approximately 83% of the wild nesting sites occur (Canadian Wildlife Service and USFWS 2007; USFWS 2013b). Divide County, including the project area, is within the primary migratory flyway of whooping cranes.

Whooping cranes probe the soil subsurface with their bills for foods on the soil or vegetation substrate (Canadian Wildlife Service and USFWS 2007). Whooping cranes are omnivores and foods typically include agricultural grains, as well as insects, frogs, rodents, small birds, minnows, berries, and plant tubers. The largest amount of time during migration is spent feeding in harvested grain fields (Canadian Wildlife Service and USFWS 2007). Studies indicate that whooping cranes use a variety of habitats during migration, in addition to cultivated croplands, and generally roost in small palustrine (marshy) wetlands within 0.6 mile (1 km) of suitable feeding areas (Howe 1987, 1989). Whooping cranes have been recorded in riverine habitats during their migration, with eight sightings along the Missouri River in North Dakota (Canadian Wildlife Service and USFWS 2007:18). In these cases, they roost on submerged sandbars in wide, unobstructed channels that are isolated from human disturbance (Armbruster 1990).

Suitable whooping crane foraging habitat (i.e., cultivated cropland and wetlands >0.04 hectare) was not observed within the survey area. However, the surrounding area includes suitable habitat and the project area is located within the migratory corridor for the whooping crane, with the nearest sighting to the project area approximately 5.5 miles northwest. Therefore, the proposed project **may affect, but is not likely to adversely affect** the endangered whooping crane.

3.7.3 Piping Plover

Federal Status: Threatened

Affect Determination: May Affect, Is Not Likely to Adversely Affect

The piping plover is a small shorebird which breeds only in three geographic regions of North America: the Atlantic Coast, the Northern Great Plains, and the Great Lakes. Piping plover populations were federally listed as threatened and endangered in 1985, with the Northern Great Plains and Atlantic Coast populations listed as threatened, and the Great Lakes population listed as endangered (USFWS 1985).

Plovers in the Great Plains make their nests on open, sparsely vegetated sand or gravel beaches adjacent to alkali wetlands, and on beaches, sand bars, and dredged material islands of major river systems (USFWS 2002, 2012b). The shorelines of lakes of the Missouri River constitute significant nesting areas for the bird. Piping plovers nest on the ground, making shallow scrapes in the sand, which they line with small pebbles or rocks (USFWS 1988). Anthropogenic alterations of the landscape along rivers and lakes where piping plover nest have increased the number and type of predators, subsequently decreasing nest success and chick survival (USFWS 2002, 2012b). The birds fly south by mid to late August to areas along the Texas coast and Mexico (USFWS 2002). The Northern Great Plains population has continued to decline despite federal listing, with population estimates of 1,500 breeding pairs in 1985 reduced to fewer than 1,100 in 1990. Low survival of adult birds has been identified as a factor (Root et al. 1992). Current conservation strategies include identification and preservation of known nesting sites, public education, and limiting or preventing shoreline disturbances near nests and hatched chicks (USFWS 1988, 2012b).

Suitable shoreline habitat for breeding and nesting plovers does not occur within the project area and the Missouri River is a minimum of 49.19 miles from the proposed survey area. It is unlikely but possible that migrating plovers may traverse the project area during their migration. Therefore, the proposed project **may affect, but is not likely to adversely affect** piping plovers.

3.7.4 Designated Critical Habitat of Piping Plover

Affect Determination: No Effect

The USFWS has designated critical habitat for the Great Lakes and Northern Great Plains populations of piping plover (USFWS 2002). Designated critical habitat for the piping plover includes 183,422 acres and 1,207.5 river miles of habitat along the shoreline of Lake Sakakawea including areas in Divide County, North Dakota (USFWS 2002).

Since the proposed project would not modify, alter, disturb, or affect the shoreline of Lake Sakakawea or the Missouri River, **no effect** to designated critical habitat of the piping plover would occur.

3.7.5 Sprague's Pipit

Federal Status: Candidate

Affect Determination: Not Likely to Jeopardize

The Sprague's pipit is a small passerine, 10 to 15 centimeters in length, endemic to the Northern Great Plains (USFWS 2010). The Sprague's pipit requires large tracts of native prairie habitat, unplowed, throughout their life cycle. Because native grasslands are disturbance-dependent, Sprague's pipit prefers grassland habitats that are regularly disturbed. The frequency of disturbance required for habitat maintenance depends on how quickly grasses grow to an intermediate height (4 to 12 inches) following a disturbance event.

In North Dakota, Sprague's pipit has been found in areas of moderate grazing. Sprague's pipits are sensitive to patch size and avoid edges between grasslands and other habitat features (USFWS 2010). They may avoid non-grassland features including roads, trails, oil wells,

croplands, woody vegetation, and wetlands. The Sprague's pipit is reported to stay up to 350 meters from anthropogenic features such as roads, oil wells, and wind turbines (USFWS 2010). The USFWS has estimated that each new oil well and associated road in North Dakota results in potential impacts to approximately 51 acres of pipit habitat due to avoidance and habitat fragmentation (USFWS 2010). Because of increasing habitat fragmentation, especially by energy development, throughout the Sprague's pipit range, and the loss of native prairie habitat, the Sprague's pipit was listed as a Candidate Species under the ESA in 2010 (USFWS 2010).

In North Dakota, Sprague's pipit breeds throughout the state except for the easternmost counties. During the breeding season they prefer large patches of well-drained, open native grassland with a minimum size of 358.3 acres (range = 170 to 776 acres). They have not been observed in areas smaller than 71.6 acres on their breeding grounds (USFWS 2010).

Native prairie habitat with grasses of intermediate height does occur in proximity to the project area. However, the habitat within and surrounding the project area has been previously disturbed by agriculture, roads, and oil and gas development. The proposed project is unlikely to directly affect habitat due to lack of adequate patch sizes required by the Sprague's pipit for breeding grounds in the immediate project area, but may indirectly contribute to reduced use of any nearby suitable grassland habitat patches within 350 meters of the proposed project. Therefore, the proposed project **is not likely to jeopardize** Sprague's pipit.

3.7.6 Northern Long-eared Bat

Federal Status: Proposed

Affect Determination: Not Likely to Jeopardize

On October 2, 2013, the USFWS proposed the northern long-eared bat for listing as endangered under the ESA (USFWS 2013c). This medium-sized bat ranges across the eastern and north central United States and all of the Canadian provinces (USFWS 2013c). Throughout most of this species' range, populations are patchily distributed. They emerge at dusk to fly through the understory of forested hillsides and ridges, feeding on moths, flies, leafhoppers, caddisflies, and beetles.

Most records of northern long-eared bats are from winter hibernacula surveys, with more than 780 hibernacula identified within the United States. No known hibernacula are located in North Dakota, due to either no suitable hibernacula present or a lack of survey effort (USFWS 2013d). This bat species occupies a wide range of rocky and forested habitats. Suitable winter habitat contains large caves and mines (USFWS 2013c). Summer day roosts include abandoned buildings, bridges, hollow trees, stumps, under loose bark, and rock fissures (Jones and Choate 1978).

Northern long-eared bats are not known to occur in the project area and suitable winter habitat for the bats does not occur within the project area. Nearby trees and rocky outcrops can act as suitable summer day roosts. Due to the low likelihood of northern long-eared bat occurrence in the project area, the proposed project **is not likely to jeopardize** the species.

3.7.7 Migratory Bird Treaty Act / Bald and Golden Eagle Protection Act

3.7.7.1 Migratory Birds

Status: Not listed, protected under the Migratory Bird Treaty Act

Effects of Project: No adverse effects anticipated

Suitable habitat for migratory birds exists in the entire project area. Specifically, grassland nesting birds have the potential to occur and nest in the project area, especially during the migratory bird breeding season between February 1 and July 15. No suitable woodland nesting habitat occurs in the project area. The project area has been cleared of vegetation and existing infrastructure occurs throughout the project area. Therefore, the proposed project is unlikely to cause any adverse effects to migratory birds.

3.7.7.2 Bald Eagle

Federal Status: Delisted in 2007; protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

Effects of Project: No adverse effects anticipated

The bald eagle (*Haliaeetus leucocephalus*) feeds on fish and carrion and typically roosts in large trees near a water source. Bald eagle nesting habitat is typically any mature stands of conifer or cottonwood trees in association with rivers, streams, reservoirs, lakes, or any significant body of water. Bald eagles are uncommon in North Dakota and are usually observed along the Missouri River (Gomes n.d.) and Yellowstone River. Bald eagles frequently migrate through the grassland habitats; however, no bald eagles or nests were observed during the field surveys. Therefore, **no adverse effects** to bald eagles are anticipated.

3.7.7.3 Golden Eagle

Federal Status: Unlisted; protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

Effects of Project: No adverse effects anticipated

The golden eagle (*Aquila chrysaetos*) prefers habitat characterized by open prairie, plains, and forested areas. Usually, golden eagles can be found in proximity to badland cliffs which provide suitable nesting habitat. Golden eagles may occur within or near the survey area; however, no golden eagles or nests were observed during the field surveys. Therefore, **no adverse effects** to golden eagles are anticipated.

3.7.8 Wildlife Observed

During the field survey, SWCA ecologists observed various wildlife species which utilize grasslands and other habitat within the survey area (Table 3). Common wildlife species may be affected both directly via incidents with construction equipment or indirectly through the temporary fragmentation of habitat as a result of construction activities. Migratory birds are protected by the Migratory Bird Treaty Act (16 United States Code 703 et seq.) which prohibits the “take” of individuals and nests.

Table 3. Wildlife Observed during Field Surveys at the Proposed Divide Pump Station.

Common Name	Scientific Name	Observed Type
Ring-necked pheasant	<i>Phasianus colchicus</i>	Primary
Western meadowlark	<i>Sturnella neglecta</i>	Primary
Killdeer	<i>Charadrius vociferous</i>	Primary

4.0 CONCLUSIONS AND RECOMMENDATIONS

1. No wetlands were identified by SWCA ecologists within the survey area.
2. No trees, saplings, or shrubs were identified by SWCA ecologists within the survey area.
3. No waterbodies were identified by SWCA ecologists within the survey area.
4. No threatened or endangered species were observed during the field survey.

5.0 LITERATURE CITED

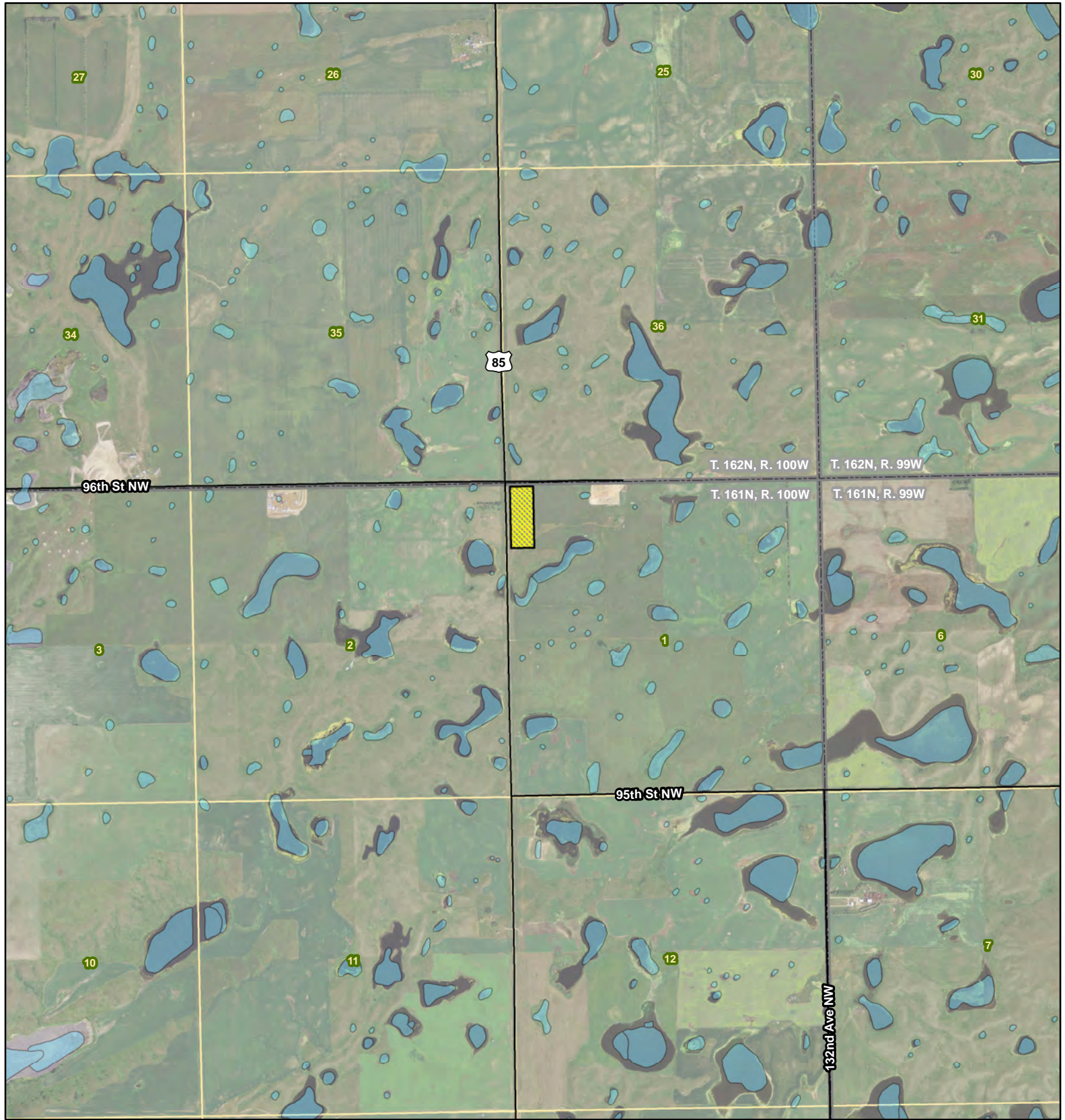
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APPENDIX A
Vicinity Maps and Site Layout Maps



Divide County Pump Station

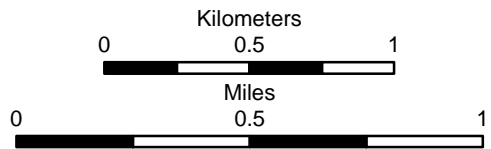
-  Existing Road
-  Survey Area
-  NWI Wetland Signature
-  Section Boundary
-  Township/Range Boundary



116 North 4th Street
Suite 200
Bismarck, ND 58501

Phone: 701.258.6622
Fax: 701.258.5957

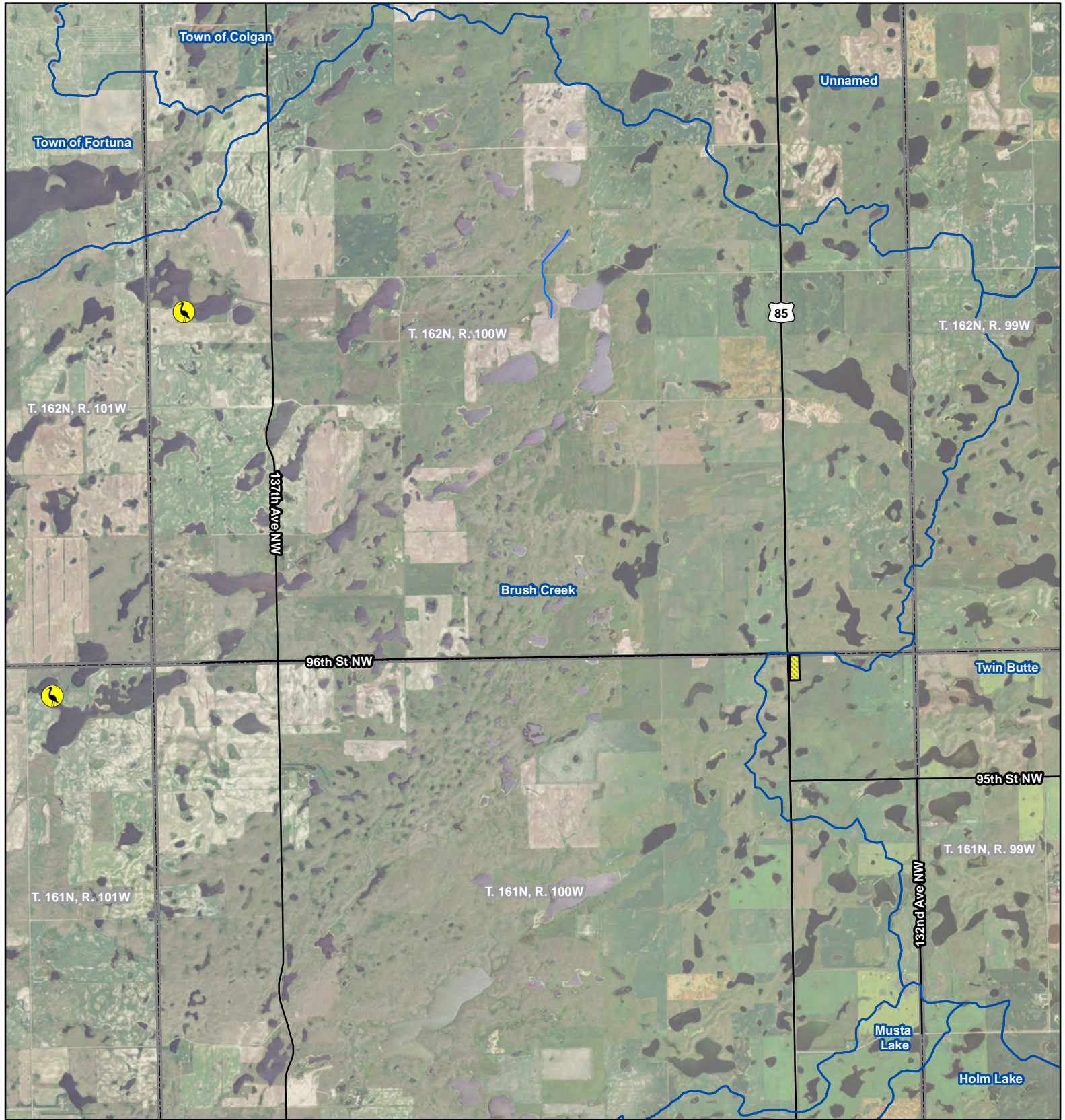
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Base Map: 2012 NAIP Aerial Imagery
Source: North Dakota GIS Hub
Quadrangle: Colgan SE (1984)
T161N, R100W
Divide County, North Dakota

Projection: NAD 1983 UTM Zone 13N





Divide County Pump Station

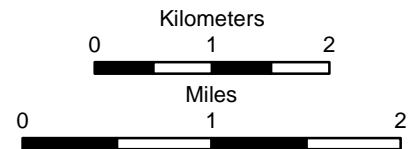
-  Whooping Crane Occurance
-  Flowline
-  Existing Road
-  Survey Area
-  Watershed Boundary (HUC 12)
-  Township/Range Boundary



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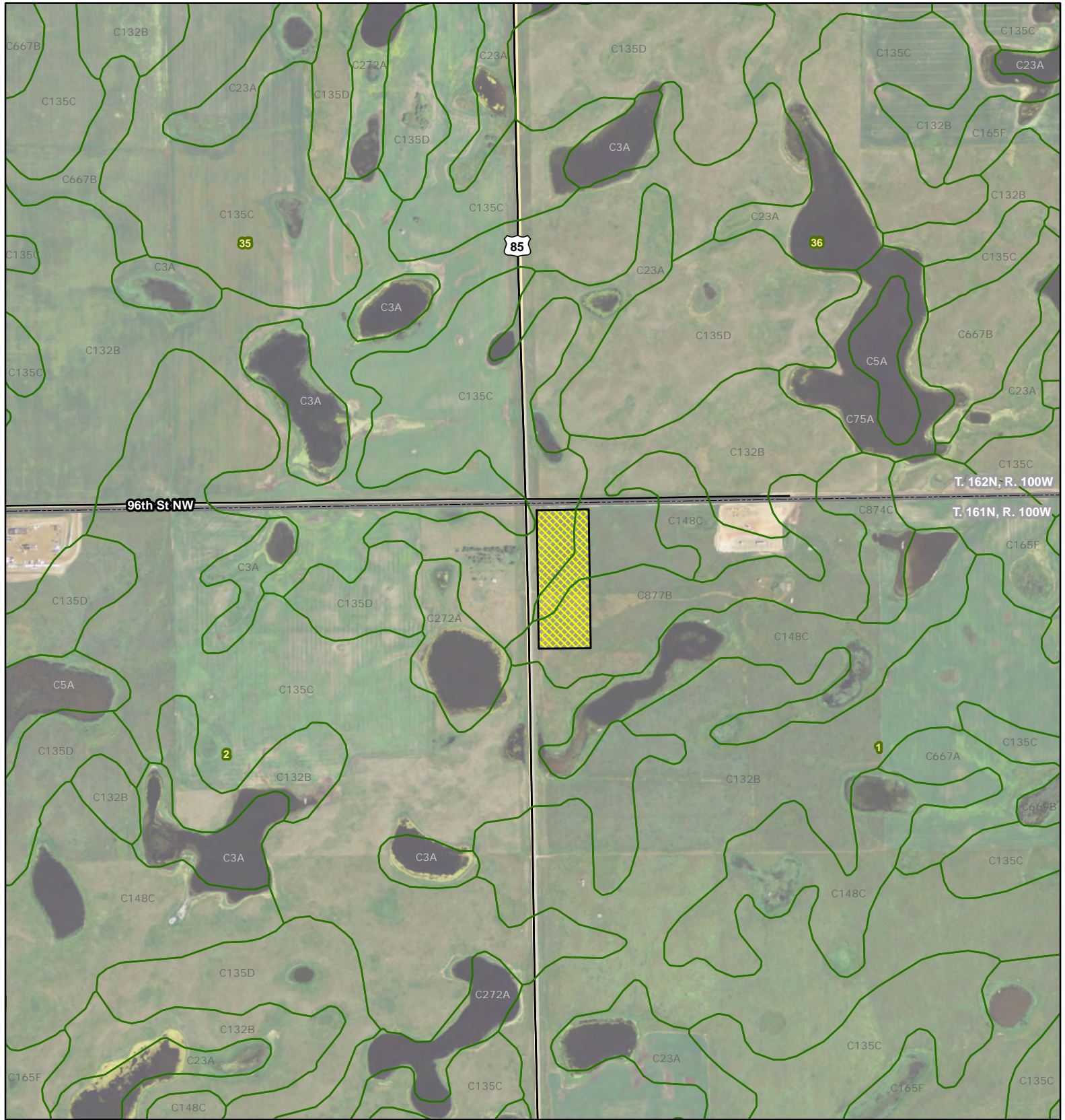


Base Map: 2012 NAIP Aerial Imagery
Source: North Dakota GIS Hub
Quadrangle: Colgan SE (1984)
T161N, R100W
Divide County, North Dakota






Projection: NAD 1983 UTM Zone 13N



APPENDIX B
Survey Area Soil Series Map



Divide County Pump Station

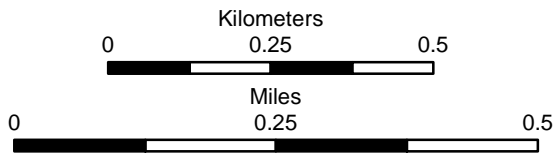
-  Existing Road
-  Survey Area
-  Soil Unit Boundary
-  Township/Range Boundary
-  Section Boundary



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Base Map: 2012 NAIP Aerial Imagery
Source: North Dakota GIS Hub
Quadrangle: Colgan SE (1984)
T161N, R100W
Divide County, North Dakota

Projection: NAD 1983 UTM Zone 13N



APPENDIX C
Photographs of Project Area



Figure C.1. Southwest corner of station, facing northeast (photo taken April 25, 2014).



Figure C.2. Southeast corner of station, facing northwest (photo taken April 25, 2014).



Figure C.3. Northwest corner of station, facing southeast (photo taken April 25, 2014).



Figure C.4. Overview of project area, facing north (photo taken April 25, 2014).



Figure C.5. Overview of project area, facing east (photo taken April 25, 2014).



Figure C.6. Overview of project area, facing south (photo taken April 25, 2014).



Figure C.7. Overview of project area, facing west (photo taken April 25, 2014).

Appendix D

Cultural Resource Report

North Dakota Negative Results Cultural Resource Report

<i>Date of Report:</i>	June 25, 2014	
<i>Project Name/Report Title:</i>	A Class I and Class III Cultural Resource Inventory of the Meadowlark Midstream Company, LLC, Divide Pump Station, Divide County, North Dakota	
<i>Project Proponent/Sponsor:</i>	E3 Environmental, LLC (E3)	
<i>Lead Agency:</i>	North Dakota State Historical Preservation Office	
<i>SWCA Project Number:</i>	29473	
<i>Principal Investigator:</i>	William Harding	
<i>Author(s) of Report:</i>	Aidan McCarty	
<i>Persons Performing Fieldwork:</i>	Matthew Cox, Trey Dunagan	
<i>Date of Fieldwork:</i>	April 25, 2014	
<i>Acres/Area Inventoried:</i>	Divide Pump Station	
	<i>Total Inventoried Area</i>	9.33 acres
	<i>Pump Station Survey</i>	9.33 acres
<i>Legal Locations:</i>	W ¹ / ₂ NW ¹ / ₄ NW ¹ / ₄ of Section 1, Township (T) 161 North (N), Range (R) 100 West (W); Colgan SE (1984) U.S. Geological Society (USGS) 7.5-minute Topographic Quadrangle	
<i>ND Prehistoric Study Unit:</i>	Garrison Study Unit	
<i>ND Historic Study Unit:</i>	Historic Study Unit 21	

Project Description

SWCA conducted a Class I and Class III cultural resource inventory of the proposed Meadowlark Midstream Company, LLC, Divide Pump Station project (Divide Pump Station) in Divide County, North Dakota, on April 25, 2014, on behalf of E3 Environmental, LLC (E3).

The only regulatory agencies to be involved are the North Dakota Public Service Commission (NDPSC) under the North Dakota Energy Conversion and Transmission Facility Siting Act (excluding any applicable county or local requirements), and the United States Army Corps of Engineers (USACE) through Section 404 of the Clean Water Act (CWA), which regulates discharge into waters of the U.S. regulated by the USACE. Therefore, the survey was conducted in compliance with Section 404 of the Clean Water Act and Section 106 of the National Historic Preservation Act. This report is not being submitted to the USACE for review at this time.

SWCA conducted a Class III inventory for the proposed Divide Pump Station on behalf of E3 on April 25, 2014. The survey area was centered on the proposed pump station location. A total of 9.33 acres were surveyed for the current project.

The Divide Pump Station project area will be accessed via an existing access road that trends east/west across the northern edge of the survey block.

Location Description

The Divide Pump Station is located in the W¹/₂ NW¹/₄ NW¹/₄ of Section 1, T160N, R100W in Divide County, North Dakota, on privately owned lands. The survey area is located within rolling grasslands, approximately 10 miles southeast of Fortuna, North Dakota. The proposed pump station location is approximately 120 feet southeast of the intersection of Highway 85 and 96th St NW. A well pad has been constructed east of the current project area, with an associated access road that trends east/west across the northern extent of the survey area. The project area will be accessed from the existing improved access road from Highway 85. The ground surface of the project area has been heavily disturbed as a result of oil and gas development.

Files/Records Search Results

A Class I cultural resource file search for the project location and surrounding 1-mile study area was conducted by Matt Cox (SWCA archaeologist) on April 24, 2014, of files maintained at the State Historical Society of North Dakota.

Based on the results of the file search, two cultural resource inventories have been previously conducted within 1 mile of the project area (Table 1). No previously recorded cultural resources were identified within the 1-mile study area.

Table 1. Previous Inventories Identified within the 1-mile Study Area.

Manuscript Number	Location	Title	Authors	Year
13329	Section 1, T161N, R100W	US Highway 85, NDDOT 7-085(069)216, PCN 19842: A Class III Cultural Resource Investigation in Williams and Divide Counties, North Dakota	K. Morgan, D. Klinner, J. Harty	2012
14750	Section 1, T161N, R100W	Summit Midstream Energy Divide Lateral Crude Petroleum Gathering Pipeline: Class III Cultural Resource Inventory, Divide and Williams Counties, North Dakota	R. Swanson	2013

NRHP = National Register of Historic Places

<i>Field Methods and Survey Conditions</i>
<p>SWCA conducted a Class III cultural resource inventory in support of the proposed Divide Pump Station on April 25, 2014, on behalf of E3 Environmental. Fieldwork was conducted by Matt Cox and Trey Dunagan (SWCA archaeologists) under the direction of William Harding, Principal Investigator. The survey consisted of a 9.33-acre survey block centered on the proposed pump station location. The survey was conducted using pedestrian transects spaced at no greater than 30-meter intervals.</p> <p>Located amongst rolling grasslands, the survey area is situated immediately southeast of the intersection of Highway 85 and 96th St NW. Vegetation in the area consists of western wheatgrass, brome, and forbs, resulting in a bare ground surface visibility of 5 percent at the time of survey. Surface sediments in the area consist of gray brown silty loam formed through aeolian, colluvial, and residual processes. Impacts to the project area include livestock grazing, erosional processes, and oil and gas development. A well pad has been constructed immediately east of the current project area, with an associated access road trending east/west across the northern extent of the survey area, connecting to Highway 85 on the west side of the project area. Construction of the well pad and access road had resulted in heavy ground disturbance to the northern portion of the survey block. The ground surface of the project area has been heavily disturbed as a result of oil and gas development.</p> <p>The project area was photographed and field observations were recorded during the inventory. All photographs, global positioning system and geographic information systems data, and notes are on file at SWCA's Bismarck office under project number 29473. Photographs of the project area are attached, as well as a map showing the inventoried area.</p>
<i>Results and Recommendations</i>
<p>No cultural resources were observed during the course of the inventory. It is recommended that the project be granted a determination of <i>No Significant Sites Affected</i> and <i>No Historic Properties Affected</i>.</p>



- Overview of the project survey area, facing southeast.
- Photograph taken April 25, 2014, by Matt Cox.
- Image has not been altered.



- Overview from the northeast corner of the survey area with access road, facing west.
- Photograph taken April 25, 2014, by Matt Cox.
- Image has not been altered.






- Overview from the northeast corner of the station, facing southwest.
- Photograph taken April 25, 2014, by Matt Cox.
- Image has not been altered.

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Divide County Pump Station

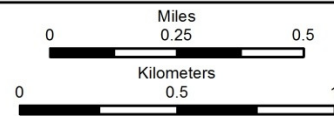
-  Existing Road
-  Survey Area
-  Township/Range Boundary



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Base Map: USGS 7.5' Topographic Map
 Source: esri ArcGIS service
 Quadrangle: Colgan SE (1984)
 T161N, R100W
 Divide County, North Dakota



Scale: 1:24,000 NAD 1983 UTM Zone 13N

Project location map at 1:24,000 scale showing survey area.
 (Colgan SE [1984] USGS 7.5-minute Quadrangle)

Appendix E

10-Year Plan

Refer to Application as originally filed.

Appendix F

Landowner Waivers



Meadowlark Midstream Company, LLC
999 18th Street, Suite 3400S
Denver, CO 80202

Phone: 720.452.6225
Fax: 720.452.6232
www.summitmidstream.com

April 12, 2014

Art Wheeler
P.O. Box 113
Epping, ND 58843

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T155N-R99W-1: 100x180 in S2L3

Mr. Wheeler,

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Art Wheeler

Date: 4/28/14



Meadowlark Midstream Company, LLC
999 18th Street, Suite 34005
Denver, CO 80202

Phone: 720.452.6225
Fax: 720.452.6232
www.summitmidstream.com

April 12, 2014

Vernon D. Lind and Joanne C. Lind
P.O. Box 42
Epping, ND 58843

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T155N-R99W-1: Tract 333x75 IN SWL2

Mr. and Mrs. Lind,

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Vernon D. Lind

Date: April 23, 2014

Joanne C. Lind

Date: April 23 - 2014



Meadowlark Midstream Company, LLC
999 18th Street, Suite 3400S
Denver, CO 80202

Phone: 720.452.6225
Fax: 720.452.6232
www.summitmidstream.com

April 12, 2014

Claus H. Paradies and Carol A. Paradies
7501 Brook Loop
Bismarck, ND 58503

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T161N-R100W-2: Lot 1 and T161N-R100W-11:SE4NE4

Mr. and Mrs. Paradies,

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Claus H. Paradies

Date: 4/24/14

Carol A. Paradies

Date: 4/24/14



Meadowlark Midstream Company, LLC
999 18th Street, Suite 3400S
Denver, CO 80202

Phone: 720.452.6225
Fax: 720.452.6232
www.summitmidstream.com

April 12, 2014

Robert L. Westlie and Kathryn Westlie
1211 Glacial Drive
Minot, ND 58703

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T161N-R100W-2: Lot 1 and T161N-R100W-11:SE4NE4

Mr. and Mrs. Westlie:

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Robert L. Westlie

Date: 4-22-14

Kathryn Westlie

Date: 4-22-14



Meadowlark Midstream Company, LLC
999 18th Street, Suite 3400S
Denver, CO 80202

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April 12, 2014

Walter Stewart Anderson Revocable Trust
Walter Stewart Anderson, Trustee *PO 115*
~~4419 Arden View Court~~ *PO 115 Epping, ND 58843*
~~Arden Hills, MN 55112~~

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T155N-R99W-1: 100x180 in S2L3

Mr. Anderson,

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business and therefore, we are providing you with notice of such project. However, no construction or changes are needed on your property as the Conversion Project only affects the operations of the existing pipeline. Please feel free to contact me if you would like more details on the Conversion Project.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Walter Stewart Anderson, Trustee

Date: 4/24/14



Meadowlark Midstream Company, LLC
999 18th Street, Suite 3400S
Denver, CO 80202

Phone: 720.452.6225
Fax: 720.452.6232
www.summitmidstream.com

April 12, 2014

Helen Olson
107 Lawrence Avenue
Epping, ND 58843

RE: Meadowlark Midstream Company, LLC – Divide Lateral Pipeline Conversion
T155N-R99W-1: Triangular Parcel in SE corner L3

Mrs. Olson,

Please review the attached site map noting the location of a pipeline (hereinafter referred to as “Facilities”) associated with the Divide Lateral Pipeline Conversion Project Application which Meadowlark Midstream Company, LLC (hereinafter referred to as “Meadowlark”) intends to file with the North Dakota Public Service Commission (“Conversion Project”). The Conversion Project involves installation of a pump station on the northern end of the existing pipeline. The attached site map indicates that the Facilities are located within 500 feet of your residence or business.

By signing below you are confirming that you have no objection to the Conversion Project, or the future operation and maintenance of the Facilities. Your cordial cooperation in this manner is greatly appreciated.

Respectfully,

Nathan Brady
Landman
Meadowlark Midstream Company, LLC

Helen Olson

Date: 4-2-14