DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

VIA HAND DELIVERY & ELECTRONIC MAIL

April 23, 2021

Mr. Steve Kahl, Executive Director
North Dakota Public Service Commission
600 E. Boulevard Avenue, Dept. 408
Bismarck, ND 58505-0480

Re: Consolidated Application for a Certificate of Corridor Compatibility and Route Permit for Dakota Gasification Company's Dakota Carbon Pipeline

Dear Mr. Kahl:

Enclosed please find an original and ten (10) copies of Dakota Gasification Company's Consolidated Application for a Certificate of Corridor Compatibility and Route Permit for the Dakota Carbon Pipeline carbon dioxide transmission facility. An Affidavit of Service by Mail, check for the application filing fee of $100,000.00, an 8.5 by 11 inch black and white map suitable for newspaper publication, and a USB flash drive containing the application in electronic format and corresponding GIS shapefiles are also enclosed.

No townships in Mercer County have retained zoning authority; the email addresses for the Mercer County auditor and the chairman of the board for the Mercer County commission are sbrost@nd.gov and genewolf.mcc@gmail.com, respectively.

For inquiries regarding the application, please contact Mr. Kevin Solie, Senior Environmental Compliance Administrator, at ksolie@bepc.com or at (701) 202-5096 with copy to Ms. Casey Jacobson, Senior Staff Counsel, at cjacobson@bepc.com or at (701) 557-5413. If preferable, correspondence can be sent to their physical business address of 1717 East Interstate Avenue, Bismarck, ND 58503.

Sincerely,

Paul M. Sukut
President & CEO

Enclosures
cc: Shana Brost, Mercer County Auditor
cc without enclosure: Kevin Solie, Tyler Schilke, Casey Jacobson

BEFORE THE PUBLIC SERVICE COMMISSON
OF THE STATE OF NORTH DAKOTA

DAKOTA GASIFICATION COMPANY'S CONSOLIDATED APPLICATION FOR A CERTIFICATE OF CORRIDOR COMPATIBILITY AND ROUTE PERMIT FOR THE DAKOTA CARBON PIPELINE TRANMISSION FACILITY	Case No. PU-21-__

AFFIDAVIT OF SERVICE BY MAIL

STATE OF NORTH DAKOTA)
)§
COUNTY OF BURLEIGH)

Cole Bossert, being first duly sworn on oath, deposes and says: That he is a citizen of the United State over the age of eighteen years and not a party to, nor interested in, the above entitled action.

That on the 23 day of April, 2021, this affidavit did deposit in the United States Post Office at Bismarck, North Dakota, a true and correct copy of the following document:

DAKOTA GASIFICATION'S COMPANY CONSOLIDATED APPLICATION FOR A CERTIFICATE OF CORRIDOR COMPATIBILITY AND ROUTE PERMIT FOR THE DAKOTA CARBON PIPELINE TRANSMISSION FACILITY

That the documents with postage prepaid were mailed, directed to the person to be serviced at their known post office address as follows:

Shana Brost
County Auditor
P.O. Box 39
Stanton, ND 58571-0039

To the best of affiant's knowledge the addresses above given were the actual post office addresses of the party intended to be serviced.

Lori A. Brown

Subscribed and sworn to me this 23 day of April 2021.

LORI A BROWN
Notary Public
State of North Dakota
My Commission Expires Nov 11, 2024

Notary Public
Burleigh County, North Dakota
My Commissions Expires:

DAKOTA GASIFICATION COMPANY

A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

Dakota Carbon Pipeline Project

Application to the North Dakota Public Service Commission for a Consolidated Certificate of Corridor Compatibility and Route Permit

Mercer County, North Dakota

Prepared by Basin Electric Power Cooperative

April 2021

Table of Contents

APPENDICES

TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BGEPA	Bald and Golden Eagle Protection Act
BMPs	best management practices
CFR	Code of Federal Regulations
CO_2	carbon dioxide
Commission	North Dakota Public Service Commission
DCP	Dakota Carbon Pipeline
DGC	Dakota Gasification Company
ESA	Endangered Species Act
EPA	Environmental Protection Agency
GHG	greenhouse gas
GIS	Geographic Information System
HDD	Horizontal Directional Drilling
MBTA	Migratory Bird Treaty Act
MMSCF	million standard cubic feet
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDEQ	North Dakota Department of Environmental Quality
NDDOT	North Dakota Department of Transportation
NDGS	North Dakota Geological Survey
NDIC	North Dakota Industrial Commission
NDPDES	North Dakota Pollution Discharge Elimination System
NDPRD	North Dakota Parks and Recreation Department
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
Metcalf or MAC	Metcalf Archaeological Consultants, Inc.
OSHA	Occupational Safety and Health Administration
PHMSA	Pipeline Hazardous Materials Safety Administration
PSC	Public Service Commission
Project	Dakota Carbon Pipeline
ROW	right-of-way
SHSND	State Historical Society of North Dakota
SWPPP	Storm Water Pollution Prevention Plan
UDP	Unanticipated Discovery Plan
US	United States
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WEST	Western EcoSystems Technology, Inc.

EXECUTIVE SUMMARY

Dakota Gasification Company (DGC) is proposing to construct an approximately 6.8-mile-long carbon dioxide (CO_2) gas pipeline from DGC's Great Plains Synfuels Plant (GPSP) to six (6) CO_2 geologic sequestration well locations in central Mercer County, North Dakota. Pursuant to North Dakota Century Code (NDCC) Section 49-22.1-08., DGC submits this consolidated application for a North Dakota Public Service Commission (Commission) Certificate of Corridor Compatibility (Certificate) and Transmission Facility Route Permit (Route Permit) to construct the Dakota Carbon Pipeline (DCP or Project).

At some point in the future a wholly-owned subsidiary of DGC may own the pipeline. In any case, DGC would remain responsible for the pipeline's operation and maintenance. The purpose of the DCP is to deliver CO_2 to a third-party tax-equity partner (Partner) with an ability to utilize CO_2 sequestration tax credits. DGC's Partner would also be responsible for preparing other required permit applications on DGC's behalf, including compliance with the North Dakota State Industrial Commission (NDIC) regulations relating to the injection and geologic storage of CO_2.

After nearly three years since enactment of the authorizing legislation, the Internal Revenue Service on January 15, 2021 issued final regulations to implement Section 45Q of the United States (US) tax code. Section 45Q provides a performance-based tax credit for carbon capture projects that can be claimed when a project has securely stored carbon dioxide in a geologic formation, such as an oil field or saline formation. The 45Q tax credit provides incentives for carbon capture projects in multiple industries, much like the role the federal production tax credit and investment tax credit has played in wind and solar projects. With the regulatory certainty provided by the final 45Q regulations, the Project would allow for additional options for CO_2 produced by DGC, including partnering with a third-party in order to utilize the recently enacted 45Q tax credits.

The NDIC's policy, as expressed in NDCC Chapter 38-22, is to promote the geologic storage or sequestration of CO_2, because it will benefit the state and the global environment by reducing greenhouse gas emissions. Geologic storage of CO_2 is also expected to help ensure the viability of the state's coal and power industries, resulting in economic benefit to North Dakota and its citizens. CO_2 may potentially be a valuable commodity, and geologic storage could allow for its ready availability if needed for commercial, industrial, or other uses, including enhanced recovery of oil, gas, and other minerals.

DGC has extensive experience in the operation and maintenance of CO_2 pipelines. DGC owns, operates, and maintains a 205-mile-long pipeline delivering CO_2 to the Weyburn and Midale oil fields in southern Saskatchewan, Canada, for enhanced oil recovery (EOR). The proposed pipeline would be buried at a minimum depth of four feet within a 50-foot right-of-way. The Project would include ancillary facilities such as pig launching and receiving stations, cathodic protection and communication systems, buildings, fencing, and miscellaneous minor structures. Pending permits and approvals, the Project would commence construction in late summer or early fall of 2021 and would be in service during the first or second quarter of 2022.

ENERGY CONVERSION AND TRANSMISSION FACILITY SITING ACT COMPLIANCE

In accordance with the North Dakota Energy Conversion and Transmission Facility Siting Act, the siting and design of the Project were made in an orderly manner compatible with environmental preservation and the efficient use of resources. DGC considered exclusion areas, avoidance areas, and selection criteria as well as policy criteria set forth in NDAC Section 69-06-08-02 in the siting and design of the Project. **Table 1 - Certificate of Corridor Compatibility and Route Permit checklist** outlines the information to fulfill the requirements to obtain a combined Corridor Certificate and Route Permit application and where these requirements are addressed in this application.

Table 1 - Certificate of Corridor Compatibility and Route Permit Checklist

AUTHORITY	DESCRIPTION	SECTION(S)
Chapter 49-22.1	**CENTURY CODE - TITLE 49** **ENERGY CONVERSION AND TRANSMISSION FACILITIES**	
49-22.1-06	Application for a Certificate for a Corridor	
▪ 1.a	Description of size and type of facility	2.1, 2.2, 2.4
▪ 1.b	Summary of any studies of environmental impacts	7.1, 7.3,7.4, 7.5
▪ 1.c	Need for the facility	1.1
▪ 1.d	Site for energy conversion facility	N/A
▪ 1.e	Preferred transmission (pipeline) corridor	4.1, 4.3
▪ 1.f	Analysis of merits and detriments of facility location	4.1, 4.3
▪ 1.g	Mitigating measures	8
▪ 1.h	Corridor evaluation pursuant to 49-22.1-09 and 49-22.1-03	8, 9, 5
▪ 1.i	Other relevant information (Compliance with 10-year Plan)	1.5
▪ 49-22.1.07	Application for Route Permit	
▪ 1.a	Description of size and type of facility	2.1, 2.4
▪ 1.b	Description of the location	4.1, 4.3
▪ 1.c	Route evaluation relative to 49-22.1-09 and 49-22.1-03	8, 9, 5
▪ 1.d	Mitigating measures	8
▪ 1.e	Right-of-way (ROW) preparation, construction, and reclamation	6.1
▪ 1.f	Statement identifying how: 1. Landowners informed of ROW application 2. How landowners will be compensated	4.2
▪ 1.g	Other relevant information (Project Cost)	1.6
▪ 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	9.1
▪ 2	Effects of transmission technology and design to minimize adverse effects	8.2, 9.2
▪ 3	Potential beneficial uses of waste energy from energy conversion facility	N/A
▪ 4	Unavoidable adverse direct and indirect environmental effects	9.4
▪ 5	Corridor or route alternatives developed during the hearing which minimize adverse effects	9.5
▪ 6	Irreversible and irretrievable commitments of natural resources if designated	9.6
▪ 7	Direct and indirect economic impacts of the facility	9.7
▪ 8	Existing plans for other developments at or in the vicinity	9.8
▪ 9	Effect of project on scenic areas, historic sites and structures, paleontological and archaeological sites	9.9
▪ 10	Effect of route on unique biological areas	9.10
▪ 11	Concerns raised by federal, state, or local entities	9.11

AUTHORITY	DESCRIPTION	SECTION(S)
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	1.3
▪ 2.a.(2)	Purpose of facility	1.1
▪ 2.a.(3)	Technology to be deployed	2.7
▪ 2.a.(4)	Type of product to be transmitted	1.3
▪ 2.a.(5)	Source of product being transmitted	1.4
▪ 2.a.(6)	Final destination of product being transmitted	1.4
▪ 2.a.(7)	Size and design detail and any alternative size and design	2.1, 2.4
▪ 2.a.(7)(a)	The width of ROW	2.3
▪ 2.a.(7)(b)	The approximate length of facility	2.2
▪ 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.	2.6, 6.3
▪ 2.a.(7)(g)	The estimated distance between pipeline surface structures	2.6
▪ 2.a.(7)(h)	The pipe size	2.4
▪ 2.a.(7)(i)	The maximum design for pipeline operating pressure and temperature	2.5
▪ 2.a.(7)(j)	The maximum design pipeline flow rate	2.5
▪ 2.a.(7)(k)	The number and general location of compressor or pumping stations	2.6
▪ 2.b.	Time schedule	3
▪ 2.b.(1)	Obtaining the certificate of corridor compatibility	3
▪ 2.b.(2)	Obtaining the route permit	3
▪ 2.b.(3)	Completing ROW acquisition	3
▪ 2.b.(4)	Starting construction	3
▪ 2.b.(5)	Completing construction	3
▪ 2.b.(6)	Testing operations	3
▪ 2.b.(7)	Commencing operations	3
▪ 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	Appendix C
▪ 2.d.	Need for the facility	1.1
▪ 2.e.	Description of alternatives	1.2
▪ 2.f.	Corridor width	4.1.2, 4.3
▪ 2.g.	Study area to enable the Commission to evaluate the factors in the Century Code section 49-22-09	4.1.1
▪ 2.h.	Discussion of factors in Century Code 49-22-09 to aid Commission's evaluation	9

AUTHORITY	DESCRIPTION	SECTION(S)
▪ 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	8.7
▪ 2.j.	Map of criteria that led to route location	Figures 3 and 4
▪ 2.k.	Discuss relative value of each criteria and how the location was selected; how operation will affect criteria	5.1, 5.2, 5.4
▪ 2.l.	Mitigating measures	8
▪ 2.m.	Qualifications of each person involved in location study	10
▪ 2.n.	Map identifying criteria that led to the route location and new facilities	Figures 3 and 4
▪ 2.o.	8 ½ x 11 black and white map suitable for newspaper publication	Attached to Application
▪ 2.p.	Discussion of present and future natural resource development in the area	4.1, 4.3
▪ 2.q.	Maps and geographic information system (GIS) data meeting North Dakota Public Service Commission requirements	USB Flash Drive Included w/Application
▪ **69-06-08-02**	**Transmission Facility Corridor and Route Criteria**	**69-06-08-02**
▪ 1	Exclusion areas	5.1
▪ 1.a.	Designated or registered national: parks, sites, landmarks, monuments, wilderness	5.1
▪ 1.b.	Designated or registered state: parks, sites, monuments, archeological sites, nature preserves	5.1
▪ 1.c.	County parks and recreational areas, municipal parks, parks owned or administered by other governmental subdivisions	5.1
▪ 1.d.	Areas of critical habitat	5.1
▪ 1.e.	Areas where unique or rare species would be irreversibly damaged	5.1
▪ 1.f.	Area within one thousand two hundred feet of Intercontinental Ballistic Missile (ICBM) facility	5.1
▪ 1.g.	Areas within thirty feet of direct line of ICBM launch facilities	5.1
▪ 2.	Avoidance areas	5.2
▪ 2.a.	Designated or registered national: historic districts, wildlife areas, wild, scenic, or recreational rivers, wildlife refuges, grasslands	5.2
▪ 2.b.	Designated or registered state: wild, scenic, recreational rivers, game refuges, game management areas, forest, management lands, grasslands	5.2
▪ 2.c.	Historical resources which are not specifically designated as exclusion or avoidance areas	5.2
▪ 2.d.	Areas which are geologically unstable	5.2
▪ 2.e.	Within five hundred feet of a residence, school, or place of business	5.2
▪ 2.f.	Reservoirs and municipal water supplies	5.2
▪ 2.g.	Water sources for organized rural water districts	5.2
▪ 2.h.	Irrigated land (does not apply to underground transmission facility)	5.2
▪ 2.i.	Area of recreational significance but not designated exclusion areas	5.2
▪ 3.	Selection criteria. Impact on:	5.3
▪ 3.a.(1)	Agricultural production	5.3
▪ 3.a.(2)	Family farms and ranches	5.3
▪ 3.a.(3)	Land economically suitable for irrigation	5.3
▪ 3.a.(4)	Surface drainage patterns and groundwater flow patterns	5.3
▪ 3.b.(1)	Sound sensitive land uses	5.3

AUTHORITY	DESCRIPTION	SECTION(S)
3.b.(2)	Visual effect on adjacent area	5.3
3.b.(3)	Extractive and storage resources	5.3
3.b.(4)	Wetlands, woodlands, and wooded areas	5.3
3.b.(5)	Radio and TV reception and other communication or electronic facilities	5.3
3.b.(6)	Human health and safety	5.3
3.b.(7)	Animal health and safety	5.3
3.b.(8)	Plant life	5.3
4.	Policy criteria	5.4
4.a.	Location and design	5.4
4.b.	Training and utilization of instate labor	5.4
4.c.	Economics of construction and operation	5.4
4.d.	Use of citizen coordinating committees	5.4
4.e.	Commitment of portion of transmitted product for use in state	5.4
4.f.	Labor relations	5.4
4.g.	Coordination of facilities	5.4
4.h.	Monitoring of impacts	5.4
4.i.	Using existing and proposed ROWs and corridors	5.4
4.j.	Other existing or proposed transmission facilities	5.4

SECTION 1: DESCRIPTION

1.1 Purpose and Need for Project

The purpose of the Dakota Carbon Pipeline (DCP or Project) is to provide carbon dioxide (CO_2) to a third-party entity in order to facilitate the geologic storage or sequestration of CO_2. The Project would allow Dakota Gasification Company (DGC) or its Partner to utilize the 45Q tax credits for CO_2 captured by DGC infrastructure while securely storing CO_2 in a geologic (Broom Creek) formation. The geologic storage or sequestration of CO_2 could benefit the state and the global environment by reducing greenhouse gas emissions. Geologic storage of CO_2 is also expected to help ensure the viability of the state's coal and power industries and to the economic benefit of North Dakota and its citizens.

1.2 Project Alternatives

Surface transportation by rail or tanker truck is neither practical nor cost-effective. The only other reasonable alternative would be to construct an aboveground pipeline; however, that approach was determined to be less economical and more intrusive to landowners. Given the Project's unique and highly specific purpose and need, an underground pipeline from the CO_2 source at DGC's Great Plains Synfuels Plant (GPSP) to the injection well sites was the only alternative given serious consideration. The size, layout, and location of the mainline and laterals were optimized to limit cost and minimize environmental impacts to the extent practicable. The alternative of not constructing the pipeline would result in no geologic sequestration of CO_2 and no potential for climate change benefits.

1.3 Type of Product

The DCP is a gas transmission pipeline designed to carry compressed CO_2.

1.4 Product Source and Destination

The DCP originates at DGC's GPSP and terminates at six (6) individual CO_2 injection well locations (Figure 2).

1.5 Compliance with 10-Year Plan

DGC's most recent 10-Year Plan (June 2020) mentions the evaluation of opportunities that could be available through Section 45Q of the Internal Revenue Code (Section 45Q), with respect to the balance of CO_2 produced by the DGC that is not being sold to the Canadian oil fields. The DCP, however, is not specifically included in DGC's 10-year plan, because the Project purpose and need is uniquely tied to the final rule implementing the tax credit for carbon capture and sequestration under Section 45Q published on January 15, 2021. Section 45Q provides guidance on, among other things, how projects can obtain tax credits for CO_2 captured using equipment originally placed into service on or after February 9, 2018. Please refer to Appendix F for a copy of DGC's 10-year plan.

1.6 Project Cost

The total cost of the Project is estimated to be approximately $25 million.

SECTION 2: SIZE AND DESIGN OF PIPELINE

2.1 General

The DCP is a CO_2 gas transmission pipeline. The pipeline and associated facilities will meet U.S. Department of Transportation (USDOT) regulations, including the design, installation, pressure testing, operations, and maintenance requirements as outlined in 49 Code of Federal Regulations (CFR) Part 195, Transportation of Hazardous Liquids by Pipeline, as well as other applicable codes, regulations, and standards. The Design Data Report is included in Appendix A.

2.2 Approximate Length of Facility

Including the mainline and laterals, the proposed DCP is approximately 6.8 miles in length, comprised of a mainline approximately 2.9 miles in length and constructed of 12-inch nominal diameter pipe and five (5) lateral pipelines, totaling an additional 3.9 miles of 6-inch nominal diameter pipeline, each of which originate at the mainline and end at a sequestration well site.

2.3 Right-of-Way Width

DGC is proposing a temporary construction right-of-way (ROW) width of 75 feet and a permanent ROW width of 50 feet.

2.4 Pipe Size

The DCP will be constructed of steel pipe, which shall, at a minimum, meet the following standards.

Mainline:

- 12-inch outside diameter
- API 5L X70.

Laterals:

- 6-inch outside diameter
- API 5L X65.

2.5 Maximum Operating Pressure, Temperature and Flow Rate

The pipeline has been designed with the maximum allowable operating pressure and flow rate:

- Maximum Allowable Operating Pressure (MAOP): 2,700 pounds per square inch gauge (psig);
- Maximum operating temperature: 120 degrees Fahrenheit; and
- Maximum design flow rate: 200 million standard cubic feet (MMSCF)/day.

2.6 Aboveground Facilities

Current plans include eight (8) aboveground facilities associated with the project. One (1) aboveground location is on DGC property and is associated with flow control, metering, and pig launching for the 12-inch mainline. One (1) aboveground location is adjacent to Well Site 3 and is associated with pig receiving for the

12-inch mainline and for metering and communications equipment at the CO_2 custody transfer point to Well Site 3. Five (5) of the aboveground facilities are for metering and communications equipment at the CO_2 custody transfer point at each of the five other injection well sites. One additional aboveground site is necessary to accommodate the lateral line from the mainline to Well Site 1. All components installed aboveground simplify maintenance, operations, and inspections. A chain link fence and a building to house the control and communications equipment would also be installed at each site. Additional detail regarding aboveground facilities is provided below.

The 12-inch mainline will originate on the DGC GPSP site where it will be connected to an existing 12-inch compressed CO_2 header. The primary aboveground Project components at the GPSP site, listed in the order of flow direction, include a flow meter, a flow control valve, a motor operated block valve, and a pig launcher. In addition to the block valve, additional manual isolation valves will be installed to facilitate operations and maintenance activities. The pipeline would transition to below ground installation prior to exiting the plant site. A station would be constructed along the mainline approximately 1.6 miles north of the plant site to provide an aboveground location to begin the 6-inch lateral line to Well Site 1.

A pig receiver station would be constructed at the end of the 12-inch mainline and adjacent to one of the six sequestration well sites (Well Site 3) located approximately 2.7 miles north of the plant site. The primary aboveground Project components at the pig receiver station, in the order of flow direction, would be a pig receiver, a header with five 6-inch motor operated block valves (one for each 6-inch branch line supplying CO_2 to each of the five well sites), and a flow meter for the adjacent well site. In addition to the block valve, additional manual isolation valves will be installed to facilitate operations and maintenance activities.

Aboveground facilities would also be constructed at the end of each 6-inch lateral line and adjacent to the associated sequestration well site. The primary piping component at each well site station is a 6-inch motor-operated block valve. In addition to the flow meter, manual isolation valves will be installed to facilitate operations and maintenance activities.

2.6.1 Valve Specifications

DGC will utilize valves, which shall, at a minimum, meet the following standards:

- API Standard 6D
- ANSI 1500.

2.6.2 Estimated Distance Between Surface Structures

Given the relatively short distance from the CO_2 source to the geologic sequestration well sites, aboveground facilities are closely spaced, ranging from about 0.5 to 2 miles. No new compression stations are required for the operation of the Project.

2.7 Technologies to be Deployed

The Project will be designed, constructed, maintained, inspected, and operated to meet or exceed the USDOT Pipeline Hazardous Materials Safety Administration (PHMSA) regulations, and in accordance with

industry standards and company policies. Technologies used to satisfy these requirements and standards include the following.

- Use of an external protective coating and cathodic protection to prevent external pipeline corrosion.
- Routine internal pipeline inspections using in-line inspection tools to detect internal anomalies, including corrosion or denting.
- Routine aerial and foot patrols of the permanent ROW.
- Installation of a monitoring and alarm system that continuously monitors the flow and pressure of the system via DGC's Pipeline Control Center and triggers alarms for anything outside normal operating conditions.

Construction and installation of the pipeline will use boring or horizontal directional drilling (HDD) to avoid impacts to wetlands and certain road and ditch crossings. This technique is discussed further in Section 8.

SECTION 3: PROJECT SCHEDULE

It is anticipated that construction of the proposed pipeline project would commence in September 2021, with pre-mobilization of equipment and materials in August 2021, subject to receipt of necessary permits and regulatory approvals. Construction of the pipeline and aboveground facilities would be completed by July 2022. DGC anticipates commissioning of the pipeline and associated facilities in July 2022, with a commercial operation date of August 1, 2022.

Key scheduling milestones include:

- **Obtain Corridor Certificate and Route Permit:** DGC seeks Commission approval by August 15, 2021
- **Complete ROW Acquisition:** August 1, 2021
- **Start Construction:** September 1, 2021
- **Complete Construction:** July 1, 2022
- **Complete Testing Operations:** July 31, 2022
- **Commercial Operation Date:** August 1, 2022

SECTION 4: PROJECT LOCATION

4.1 Location

The total length of the proposed DCP is approximately 6.8 miles and is located entirely within Mercer County, North Dakota. Land use in the Study Area (defined in Section 4.1.1 below) and along the DCP was historically agricultural, consisting of both cropland and rangeland. Given the existing development including the Basin Electric Antelope Valley Station (AVS) and DGC's GPSP, along with the extensive lignite surface mining associated with AVS and DGC, the Study Area now is dominated by intensely developed, heavy industrial uses. Please refer to Figures 1 and 2 of Appendix B for location details.

4.1.1 Project Study Area

After selecting a preliminary route for the pipeline, DGC defined the Study Area as a 1.0-mile-wide buffer (0.5 mile on either side of the proposed centerline of the mainline and laterals) between the source and terminations of the pipeline at each injection well location. The Study Area includes the proposed Corridor and Route, and is of sufficient width to enable the evaluation of the factors enumerated by NDCC 49-22.1-09.

4.1.2 Preferred Location of Project Corridor and Route

DGC is seeking approval of a Corridor that will align with the survey corridor used for conducting environmental field surveys. The survey corridor is 200 feet wide, approximately centered on the proposed Route. The proposed Corridor and Route are shown on Figures 2 and 3.

4.2 Easement Acquisition

DGC will secure easements as required along the pipeline route by offering compensation deemed fair by the parties. Parties involved include DGC, Basin Electric Power Cooperative (BEPC; DGC's parent company), and Coteau Properties. DGC has notified the parties affected by the proposed Project, allows the parties to participate and provide input on the Project, and anticipates easements will be granted without issue. DGC will also follow up with any crop loss compensation and/or other damage mitigation at the completion of the Project.

4.3 Corridor/Route Description and Land Requirements

The proposed Route is generally centered within the 200-foot wide Corridor. The Corridor is located in Sections 1, 2, 11, 12, 13, 14, 23, and 24 of Township 145N, Range 88W (see Figure 3). The proposed 200-foot-wide Corridor is sufficient for the Commission to evaluate the factors addressed in NDAC 49-22.1-09.

Several factors were taken into consideration to select the Corridor/Route. Section 5, Transmission Facility Corridor/Route Criteria, describes the selection criteria in further detail. The Corridor/Route was selected on the following basis:

- The Route is relatively direct, minimizing costs of the transmission facility and minimizing potential impacts to landowners and the environment.
- The Route utilizes properties owned and controlled by DGC or DGC's parent company, BEPC, and its partners and subsidiaries.
- The potential for wetlands and other environmental impacts are minimized to the extent practicable.
- The Route will provide for potential future development of additional energy resources and not prohibit surrounding land utilization.

Construction of the proposed Project would affect approximately 62.5 acres of land, including the pipeline construction ROW, additional temporary workspace (ATWS), staging areas, and aboveground facilities. Following construction, approximately 20.8 acres would be restored to pre-construction conditions and uses. The remaining approximately 41.7 acres, including the permanent pipeline easement, permanent aboveground facilities, and permanent access roads, would be retained for operation of the pipeline system.

Special construction methods would be implemented (e.g., the HDD method and bores) along the propose pipeline route in the event of wetland, road, and railroad crossings. A summarized list of land requirements is summarized in **Table 2 - Land Requirements**.

Table 2 - Land Requirements

Facility	Land Affected During Construction (acres)	Land Affected During Operation (acres)
Pipeline Right-of-Way[2]	57.1	38.2
Additional Temporary Workspace Areas[3]	1.9	0.0
12-inch Pig Launcher (at GPSP)[4]	0.5	0.5
12-inch Pig Receiver	0.5	0.5
6-inch Lateral Line Above-ground Facilities	0.8	0.8
Staging Areas[5]	0.0	0.0
Temporary Access Roads[6]	0.0	0.0
Permanent Access Roads[6]	1.7	1.7
Project Total	**62.5**	**41.7**

1. The numbers in this table have been rounded for presentation purposes. As a result, the totals may not reflect the sum of the addends.
2. Based on a 75-foot-wide construction right-of-way and a 50-foot-wide permanent easement.
3. This includes additional area for pig launcher and receiver site construction and boring site area.
4. Pig launching site is located on GPSP plant site. Area usage included for reference.
5. Staging area for proposed pipeline and appurtenant facilities is anticipated to be on the GPSP plant site. No additional land area will be affected beyond the existing staging area utilized on the plant site.
6. Temporary access roads will not be required. Existing accesses will provide sufficient access to all areas of the propose pipeline route and facility locations.

SECTION 5: TRANSMISSION FACILITY CORRIDOR/ROUTE CRITERIA

The Project Corridor/Route selection included an inventory and suitability analysis of criteria listed in NDAC Section 69-06-08-02, including exclusion and avoidance area criteria, selection criteria that relate to minimizing potential land use and environmental impacts, policy criteria that relate to maximizing public benefits, and design and construction limitations. DGC has also included economic considerations as part of the analysis.

There are no exclusion areas within the Corridor/Route. None of the avoidance criteria encompass greater than 50 percent of the Corridor/Route width. The Corridor/Route is not expected to cause adverse effects to avoidance or selection criteria. The Project will incorporate many of the benefits outlined in the policy criteria.

5.1 Exclusion Areas

Per NDAC Section 69-06-08-02, the following geographical areas (**Table 3** - **Exclusion Areas**) shall not encompass more than 50 percent of the Corridor width unless there is no reasonable alternative. NDAC Section 69-06-08-02-1 states that exclusion areas shall be excluded in the consideration of a route for a transmission facility. A buffer zone of a reasonable width to protect the integrity of the area shall be included. Natural screening may be considered in determining the width of the buffer zone.

Table 3 - Exclusion Areas

Exclusion Area	Present within Corridor or Route?	Potential Impacts
a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; wilderness areas.	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
b. Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
c. County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions.	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
d. Areas critical to the life stages of threatened or endangered animal or plant species	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
e. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
f. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.
g. Areas within thirty feet on either side of a direct line between an intercontinental ballistic missile (ICBM) launch facility and a missile alert or launch control facility to avoid microwave interference.	Not present within Corridor or Route.	No impacts are anticipated and no buffer is proposed.

5.2 Avoidance Areas

Per NDAC Section 69-06-08-02-2, the geographical areas listed in **Table 4 – Avoidance Areas** shall not be considered in the routing of a transmission facility, unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the PSC may consider, among other things, proposed management of adverse impacts, orderly siting of facilities, system reliability and integrity, efficient use of resources, and alternative routes. Economic considerations alone shall not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area shall be included unless a distance is specified in the criteria. Natural screening may be considered in determining the width of the buffer zone.

Table 4 - Avoidance Areas

Avoidance Area	Present within Corridor or Route?	Potential Impacts
a. Designated or registered national; historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.	Not present.	No impacts are anticipated and no buffer is proposed.
b. Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	Not present.	No impacts are anticipated and no buffer is proposed.
c. Historical resources which are not designated as exclusion or avoidance areas	Recorded site 32ME220 is located within and adjacent to the Corridor.	32ME220 was mitigated in 1989 as part of the surface mine development. No avoidance was recommended by Metcalf Archaeological Consultants (MAC). North Dakota State Historic Preservation Office is expected to concur with MAC's Recommendation.
d. Area which are geologically unstable	Not present.	No impacts are anticipated and no buffer is proposed.
e. Within five hundred feet [152.4 meters] of a residence, school, or place of business. This criterion shall not apply to a water pipeline facility.	DGC plant site and Coteau Properties Office are within 500 feet of the Route.	No impacts are anticipated to these industrial facilities and no buffer is proposed.
f. Reservoirs and municipal water supplies.	Not present.	No impacts are anticipated and no buffer is proposed.
g. Water sources for organized rural water districts.	Not present.	No impacts are anticipated and no buffer is proposed.
h. Irrigated land. This criterion shall not apply to an underground transmission facility.	Not present and not applicable.	No impacts are anticipated and no buffer is proposed.
i. Areas of recreational significance which are not designated as exclusion areas	Not present.	No impacts are anticipated and no buffer is proposed.

5.3 Selection Criteria

Per NDAC Section 69-06-08-02-3, a corridor or route shall be designated (**Table 5 – Selection Criteria**) only when it is demonstrated to the PSC by the applicant that any significant adverse effects resulting from the location, construction, and maintenance of the facility, as they relate to the following selection criteria, will be at an acceptable minimum or that those effects will be managed and maintained at an acceptable minimum.

Table 5 - Selection Criteria

Selection Criteria	Potential Adverse Effects
1) Agricultural production.	Negligible/minimal effects anticipated during construction.
2) Family farms and ranches.	No family farms will be displaced due to construction in the corridor/route.
3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	No irrigated land occurs within or adjacent to the corridor/route.
4) Surface drainage patterns and ground water flow patterns.	No impacts to surface drainage patterns or groundwater flow patterns are anticipated.
1) Noise-sensitive land uses.	The pipeline is to be located in a heavily developed, industrial location. No noise-sensitive land uses are present.
2) The visual effect on the adjacent area.	The pipeline will be buried adjacent to developed, industrial land uses. Visual impacts will be minimal.
3) Extractive and storage resources.	DGC has closely coordinated with the Coteau Properties in the routing of the DCP. No impacts are anticipated to extractive and storage resources
4) Wetlands, woodlands, and wooded areas.	No adverse impacts are anticipated to wetlands or woodlands within the corridor/route.
5) Radio and television reception, and other communication or electronic control facilities.	No impacts to radio and television reception, and other communication or electronic control facilities are expected.
6) Human health and safety.	No impacts to human health and safety are anticipated. The pipeline would be maintained and operated in accordance with all applicable safety rules and laws.
7) Animal health and safety.	No impacts to livestock are anticipated. Impacts to wildlife populations are expected to be minimal. Ground dwelling species may be injured or displaced during construction.
8) Plant life.	Land is generally seeded to non-native road ROW. Areas of temporary construction impacts will be restored using appropriate seed mixes.

5.4 Policy Criteria

Per NDAC Section 69-06-08-02-4, the PSC may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and (**Table 6 – Policy Criteria**). The PSC may also give preference to an applicant that would maximize interstate benefits.

Table 6 - Policy Criteria

Policy Criteria	Suitable Policy or Practice of Applicant
a. Location and design.	DGC's policy is to locate and design projects to minimize environmental impacts.
b. Training and utilization of available labor in this state for the general and specialized skills required.	DGC is utilizing North Dakota staff for project management and technical support. DGC would use local labor to the extent practicable.
c. Economies of construction and operation.	This Project creates economies of operation by colocation of facilities in developed areas.
d. Use of citizen coordinating committees.	The use of citizen coordinating committees is not expected for this Project.
e. A commitment of a portion of the transmitted product for use in this state.	DGC's Partner will use the CO_2 for sequestration solely within Mercer County.
f. Labor relations.	Installation of the pipeline will be performed by companies subcontracted for the Project. DGC requires that these companies comply with all appropriate federal, state, and local laws. No labor relations will be negatively affected by the Project.
g. The coordination of facilities.	DGC coordinated with Basin Electric and Coteau Properties regarding pipeline route and aboveground facilities.
h. Monitoring of impacts.	DGC and its construction contractor will employ Best Management Practices (BMPs) during construction to monitor ground disturbing activities. Surface water impacts will be monitored according to the SWPPP.
i. Utilization of existing and proposed rights-of-way and corridors.	The proposed Corridor and Route parallels existing underground infrastructure and Mercer County Road 26 ROW.
j. Other existing or proposed transmission facilities.	Not applicable to this Project.

SECTION 6: CONSTRUCTION, OPERATION AND MAINTENANCE

The proposed DCP would be designed, constructed, operated, and maintained in accordance with applicable requirements defined by USDOT regulations in Title 49 CFR Part 195, Transportation of Hazardous Liquids by Pipeline: Minimum Federal Safety Standards; by 18 CFR 380.15, Siting and Maintenance Requirements; and by other applicable federal and state safety regulations. Additionally, DGC would construct, operate, and maintain the proposed pipeline and other facilities in accordance with the requirements of permits issued to the Project.

6.1 General Pipeline Construction Procedures

Construction of the proposed pipeline would follow industry-standard practices and procedures, which involve a series of discrete activities conducted in a linear sequence. Prior to construction, a survey crew would stake the pipeline centerline and the limits of the construction ROW and ATWS areas. Wetland boundaries and other environmentally sensitive areas also would be marked at this time. DGC's construction contractor may need to cut and brace fences along the ROW if necessary for the pre-construction survey.

Prior to ground-disturbing activities, DGC's construction contractor would coordinate with the North Dakota One-Call system to have existing underground utilities identified and flagged. A clearing crew then would clear the work area of vegetation and other obstacles, including trees (as necessary), stumps, logs, brush, and rocks. To the extent feasible, DGC would minimize tree removal during construction. Cleared vegetation and stumps would be transported offsite to a permitted disposal facility.

Following clearing, the construction ROW and ATWS areas would be graded where necessary to provide a level work surface. Topsoil would be segregated for use in reclamation, as appropriate. If the ground is relatively flat and does not require grading, rootstock may be left in the ground to facilitate revegetation of the ROW. In areas disturbed by grading, temporary erosion and sediment controls would be installed within the ROW to minimize erosion. These erosion and sediment controls would be inspected and maintained throughout the construction and restoration phases of the Project.

Individual sections of pipe would be trucked to the construction ROW and strung along the trenchline in a single, continuous line. The pipe would be bent, where necessary, to allow for a uniform fit with the contours at the bottom of the trench. Typically, a track-mounted, hydraulic pipe-bending machine would tailor the shape of the pipe to conform to the contours of the terrain. After the pipe sections are bent, they would be welded together into long sections and placed on temporary supports. Welding would be conducted in compliance with Title 49 CFR Part 195 and American Petroleum Institute Standard 1104 Welding of Pipelines and Related Facilities. Completed welds would be visually and non-destructively inspected, and all pipe welds would be coated in accordance with required specifications. The coating would be inspected for defects, and repaired, if necessary, prior to lowering the pipe into the trench.

Trenching would be conducted with rotary trenching machines, track-mounted backhoes, or other similar equipment as illustrated in the DCP Construction ROW drawings as depicted in Appendix A. Crossings of any roads, railroads, wetlands, or waterbodies would be accomplished using the HDD method, which allows for trenchless construction across an otherwise sensitive area. The HDD method is described in greater detail in Section 8, Mitigation Measures.

Trench spoil would be deposited adjacent to the trench within the construction ROW and adjacent to the topsoil pile. In areas where the trenchline only topsoil segregation method is proposed, DGC's contractor would stockpile excavated topsoil and subsoil in separate piles directly on a sod mat to prevent stockpiled subsoil from mixing with underlying topsoil. In open lands, the sod mat would provide an adequate buffer between the stockpiled spoil and underlying topsoil.

The trench would be excavated to a depth that provides sufficient cover over the pipeline after backfilling, and would also meet the requirements of USDOT's PHMSA as specified in CFR Part 195. Typically, the trench would be excavated to a depth of about 5 feet to allow for a minimum of 4 feet of cover over the pipeline, or any associated appurtenances, after construction. Additional cover would be provided at road crossings, railroad crossings, and waterbody crossings.

Prior to lowering-in, the trench would be inspected to ensure it is free of rocks and other debris that could damage the pipe or its protective coating. The pipe would then be lifted from the temporary supports and lowered into the trench using side-boom tractors. After lowering-in, the trench would be backfilled with previously excavated materials using bladed equipment or backhoes. If the excavated material is rocky, the pipeline would be protected with a rock shield or covered with more suitable fill. Clean fill would be obtained by removing rock from the excavated spoil. Topsoil would not be used to pad the pipe. Previously graded areas would be returned to original contours as near as practicable, with the exception of areas requiring access for remaining construction activities (e.g., for restoration in the spring or summer of 2022).

After backfilling, the entire pipeline would be hydrostatically tested in sections to ensure that the system is free from leaks and would provide the required margin of safety at operating pressures. The testing medium would be a filtered water supply and would be obtained from local suppliers and trucked to the ROW in accordance with state regulations and any required transportation permits. Internal test pressures and durations would be in accordance with Title 49 CFR Part 195 and applicable permit conditions. If leaks are found, the pipe will be repaired, and the section of pipe will be retested until all required specifications are met. After testing, the hydrostatic test water would be discharged in accordance with applicable requirements.

After hydrostatic testing, the pipeline would be dried and filled with low pressure nitrogen to protect it from corrosion until commissioning, which is scheduled to occur in winter or spring 2022. Commissioning would involve activities to verify that equipment is properly installed and working, controls and communications systems are functional, and the pipeline is ready for service. The pipelines would be cleaned and dried, and the 12-inch diameter mainline would be inspected to detect anomalies in the pipe that may have been introduced during construction, and prepared for service by purging the line of air and loading the line with CO_2.

Final cleanup would begin after backfilling and as weather and site conditions permit. During clean-up, construction debris would be collected and taken to a permitted disposal facility. Pre-construction contours along the ROW would be restored to pre-existing conditions as closely as possible. Segregated topsoil would be returned to the stripped areas, and as necessary, permanent erosion controls would be installed. Seeding would be seasonally timed to ensure adequate growth.

Markers showing the location of the pipeline would be installed at fence and road crossings to identify the owner of the pipeline, and to convey emergency information in accordance with applicable government regulations, including USDOT safety requirements.

6.1.1 Aboveground Facility Construction Procedures

Construction of the proposed aboveground facilities would include a standard sequence of events. Construction would begin with clearing and grading of the sites to establish suitable grades for the facilities. Subsequent activities would include preparing foundations, installing underground piping, erecting and installing buildings, installing aboveground piping and equipment, testing the piping, testing the control equipment, cleaning up the work area, and graveling access roads and areas within the fenced perimeter. Each station site would be fenced for security. Safety and control devices would be installed and tested prior to operation.

6.2 Operations and Maintenance

DGC has extensive experience in the operation and maintenance of CO_2 pipelines, and would operate and maintain the new pipeline and aboveground facilities in accordance with all applicable federal and state requirements, including the minimum federal safety standards identified in Transportation of Hazardous Liquids by Pipeline, Title 49 CFR Part 195. A copy of DGC's Emergency Response Plan (without attachments) is included in Appendix G.

DGC would periodically inspect the pipeline as required by applicable regulatory requirements to identify potential concerns that may affect the safety and operation of the pipeline. Pipeline markers and signs would be inspected and maintained or replaced, as necessary, to ensure that pipeline locations are clearly identified. Field personnel would advise the appropriate operations personnel of new construction along or near the pipeline system. Line patrol of highway and railroad crossings would be completed as required by the USDOT. Block valves also would be inspected on an annual basis. If pipeline patrols or vegetation maintenance identify areas on the ROW where erosion is occurring, DGC would repair existing erosion control devices or install additional devices as necessary to stabilize the area and prevent future erosion. This would occur throughout the life of the Project.

To maintain accessibility to the ROW and accommodate pipeline integrity surveys, vegetation along the pipeline ROW would be periodically maintained, using mechanical mowing or cutting where necessary. Vegetation maintenance could not be conducted more frequently than every three years, with the exception of a 10-foot-wide corridor centered on the pipeline that may be maintained annually. In no case would routine vegetation maintenance clearing occur between April 15 and August 1 of any year. This restriction is designed to minimize potential impacts on migratory birds during operation of the pipeline.

In non-cultivated uplands, the entire 50-foot-wide permanent easement would be maintained in an herbaceous state. In wetlands, a 10-foot-wide corridor centered over the pipeline would be maintained in an herbaceous state, and trees greater than 15 feet in height within 15 feet of the pipeline may be selectively cut and removed from the ROW. Because the majority of the Route has low growing vegetation, DGC expects that the need for routine vegetation maintenance would be infrequent and limited to specific locations, such as areas around pipeline markers and road crossings.

DGC personnel also would perform regular operation and maintenance activities on equipment at each of the proposed aboveground stations. These activities would include calibration, inspection, and scheduled routine maintenance. Operational testing would be performed on safety equipment to ensure proper functioning, and

problems would be corrected. Operation and maintenance of block valves would be performed in accordance with information provided by the valve manufacturers.

6.3 Electrical Facilities

Electric power to DGC's proposed pig launcher station would be provided through existing GPSP plant site electrical services. Electric power to the remainder of the sites would be provided by Roughrider Electric via connections to existing distributions lines located near the sites. Roughrider Electric would construct and operate approximately 2.3 miles of electric distribution line between the existing distribution line and transformers to be located within the permanent footprint of the sites.

6.4 Expansion or Abandonment

DGC has no plans for future expansion or abandonment of the pipeline or aboveground facilities. Should the facility need to be decommissioned at a future date, DGC would comply with the decommissioning and reclamation rules in effect at that time.

SECTION 7: ENVIRONMENTAL ANALYSIS

7.1 General

Land use throughout the Corridor and along the Route was historically agricultural, consisting of both cropland and rangeland. As a result of the construction of Antelope Valley Station and GPSP, along with the associated lignite surface mining, the Corridor/Route and immediate vicinity are dominated by intensely developed, heavy industrial uses. As depicted in Figure 4, a large portion of the Corridor/Route has been previously disturbed by the mining operation. Western EcoSystems Technology, Inc. (WEST) was retained to conduct baseline biological resource surveys in support of this Corridor/Route application, and the WEST Biological Resources report is included as Appendix D. Metcalf Archaeological Consultants, Inc. (Metcalf or MAC) was retained to complete Class I and Class III cultural resource surveys to support this application. A Metcalf memo summarizing cultural resource surveys and avoidance recommendations is included as Appendix E.

On behalf of DGC, BEPC contacted various federal, state, and county agencies in Project-specific consultations to identify potential issues and concerns, as well as to determine occurrences of sensitive species or their critical habitat(s). Please see Appendix C for complete record of agency consultations.

The consultations were augmented with a comprehensive desktop analysis of the Corridor/Route as well as a Class III Cultural Resource Inventory. Because the surrounding areas are previously disturbed, there are no environmentally sensitive areas present except for the potential of seasonal wetlands along and within the corridor. The inventory of Exclusion and Avoidance Areas, as presented in Section 5, indicates that there are few constraints in the Study Area.

7.2 Agency Consultations

On January 27, 2021, Basin Electric sent letters requesting review and comment on the Project to the designated state agencies and officers listed in NDAC 69-06-01-05, as well as to various federal and county agencies and officials. The following agencies responded to Basin Electric's request for comments:

- U.S. Fish and Wildlife Service (USFWS)
- North Dakota Game and Fish Department (NDGFD)
- North Dakota Parks and Recreation-Natural Heritage Program (NDPRD)
- North Dakota State Water Commission (NDSWC)
- North Dakota State Historical Preservation Office (SHPO)
- North Dakota Department of Environmental Quality (NDDEQ)
- U.S. Army Corps of Engineers (COE)
- North Dakota Department of Transportation (NDDOT)
- Job Service North Dakota (JSND)

DGC has designed and will construct and operate the DCP in general accordance with the recommendations and requirements of the consulting agencies. Project specific impact minimization measures are discussed in Section 6 and Section 8 of this application. After the agency consultation requests were submitted, DGC made several adjustments to the proposed Corridor/Route to address agency concerns. The adjustments, however, were relatively minor, and were well within the 1-mile Study Area depicted in the agency

consultation letters. A brief summary of the agency responses received to date are summarized below. Records of consultations with the agencies listed below are provided in Appendix C.

7.2.1 U.S. Fish and Wildlife Service

The USFWS administers several programs designed to identify and protect special status plant and animal species and critical habitats. USFWS responded on February 9, 2021, offering general information regarding Section 7 of the Endangered Species Act, the Bald and Golden Eagle Protection Act (BGEPA), and the Migratory Bird Treaty Act (MBTA). The USFWS letter also suggested using the Information for Planning and Consultation (IPaC) database and contacting the Audubon Wetland Management District for information on locations of USFWS interest lands. See Appendix C for a copy of the correspondence.

7.2.2 North Dakota Game and Fish Department

The NDGFD exercises oversight and management of the state's game species and certain state-managed lands (e.g., PLOTS Program). NDGFD responded on February 24, 2021 providing general recommendations relating to the avoidance of areas of native prairie and stressing the protection of wetlands and existing drainage patterns. NDGFD concluded they do not foresee significant adverse effects on wildlife or wildlife habitat if recommendations to minimize impacts are followed. See Appendix C for a copy of the correspondence.

7.2.3 North Dakota Parks and Recreation Department

The NDPRD Natural Resource Division's scope of authority and expertise covers recreation and biological resources (in particular rare species and ecological communities). The NDPRD also maintains a database comprised of the location 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 Fund recreation projects. On March 3, 2021 the NDPRD confirmed the absence of managed lands, ecological resources, rare species and their critical habitats. See Appendix C for a copy of the correspondence.

7.2.4 North Dakota State Water Commission

The NDSWC is in charge of managing surface and groundwater resources with North Dakota. NDSWC responded on February 24, 2021 indicating they had reviewed the proposed project, and provided the following comments:

- There are no Federal Emergency Management Agency (FEMA) regulatory floodplains identified and/or mapped where the proposed project is to take place, and no permits relative to the National Flood Insurance Program (NFIP) are required.
- Office of the State Engineer (OSE) requests to be notified if the Project impacts water resources, because impacts may require a drainage or construction permit from the OSE. Existing permits in the vicinity of the Project associated with mining operations include drainage permit numbers 2655, 2682, 2695, and 4646 and construction permit 2089. Any modifications to the existing permitted structures may require a permit from OSE.

- Initial review indicates the Project does not require a conditional or temporary permit for water appropriation.
- NDSWC maintains a network of observation wells across the state that are often installed in road and highway ROWs. If an observation well is encountered during Project activities that must be removed, DGC should contact the Water Appropriations Division.

Appendix C contains a copy of the original NDSWC correspondence.

7.2.5 North Dakota State Historic Preservation Office

The SHPO is responsible for managing the historic and archaeological resources of the state; as such, the SHPO maintains records of all previously recorded cultural resources within the state. SHPO responded on February 8, 2021 recommending a Class III cultural resource survey of the Corridor be conducted.

DGC commissioned MAC to conduct a Class I Cultural Resource Inventory of the Corridor to determine whether any historic properties inside the Corridor would be impacted by the Project. Many of the areas in and adjacent to the Corridor have been disturbed by previous mining activities. Based on inspection of historic and aerial maps, MAC recommended a Class III inventory of approximately 2.33 miles of the Corridor that have not been previously disturbed. MAC also recommended that a site that had been mitigated in 1989 be revisited to verify its status. SHPO responded on March 24, 2021 concurring with the MAC survey boundary recommendation and the recommended status assessment of the previously mitigated site.

The research and fieldwork conducted by MAC identified no new cultural resources; however, one (1) previously recorded cultural resource site (32ME220) is located adjacent to the Corridor. Site 32ME220 was confirmed to be previously mitigated and had been destroyed by mining; no avoidance of the site and no further work were deemed necessary. MAC made a recommendation to the SHPO for a *No Significant Sites* determination for the undertaking as inventoried, mapped, and documented on April 16, 2021. DGC anticipates SHPO concurrence by mid-May, 2021. Please refer to Appendix C for a copies of SHPO correspondence.

7.2.6 North Dakota Department of Environmental Quality

The NDDEQ administers air quality, water quality, and waste management regulatory programs in the State of North Dakota. NDDEQ responded on February 12, 2021 indicating the proposed construction was minor and environmental impacts could be controlled by using proper construction methods. The NDDEQ offered specific comments relating to protecting waters of the state, requirements for stormwater permits, the Project's proximity to the Antelope Creek surficial aquifer, management of solid wastes, and a recommendation that DGC should develop spill response plans and should monitor the pipeline for early detection of leaks. Finally, the NDDEQ indicated it owns no land in or adjacent to the proposed Project and the proposed activities are consistent with the State Implementation Plan (SIP) for the Control of Air Pollution for the State of North Dakota. Additional NDDEQ permits or authorizations that may be required for the Project are discussed below.

7.2.6.1 NDDEQ Pollution Discharge Elimination System

The NDDEQ administers the North Dakota Pollution Discharge Elimination System (NDPDES), a program that regulates and issues permits for water discharges, including construction stormwater, site dewatering, and hydrostatic test water. DGC or its contractor will obtain the following NDPDES permits from the NDDEQ:

Construction Stormwater: DGC or its contractor will seek coverage under the NDPDES general permit for construction sites as required when disturbing an area greater than one (1) acre. A project-specific erosion control plan referred to as Storm Water Pollution Prevention Plan (SWPPP) will be prepared and maintained on-site for the duration of the Project.

Hydrostatic test water discharges: DGC or its contractor will seek coverage under the NDPDES general permit for various temporary discharges, including both construction site dewatering and hydrostatic test water discharges. This permit may not be necessary if onsite ponds at AVS or DGC are used to manage this water.

7.2.7 U.S. Army Corps of Engineers

The COE administers regulatory programs governing certain activities involving Waters of the United States. The COE has been delegated authority under the Clean Water Act by the U.S. Environmental Protection Agency to regulate activities that may result in discharges to these waters. The COE has developed the Nationwide Permit (NWP) program which it uses to regulate various activities including utility pipeline activities.

COE responded on February 17, 2021 providing information about Section 404 of the Clean Water Act and indicating a NWP-12 for utility line activities may be applicable if Waters of the United Sates are to be impacted. If the impacts are anticipated to be larger, and do not meet the criteria of the NWP, a Standard or Individual Permit may be required. If any Project activities require a Section 404 Permit, DGC is to complete and submit the required Department of the Army Permit Application. DGC will comply with the COE's requirements and will seek coverage under a Nationwide or Individual Permit if necessary. Appendix C contains a copy of the original COE correspondence and attachments.

7.2.8 North Dakota Department of Transportation

The NDDOT responded on February 16, 2021 indicating they had reviewed the proposed Project do not anticipate adverse effects on NDDOT highways. If any work needs to be done on highway ROWs, however, appropriate permits and risk management documents should be obtained from the NDDOT District Engineer. Appendix C contains a copy of the original NDDOT correspondence.

7.2.10 Job Service North Dakota

Job Service North Dakota (JSND) responded via email on February 3, 2021 requesting a "Construction Project Registration Form" be completed for the Project. The JSND form is used to track the estimated construction costs for large projects; DGC will complete and submit the form as requested. Appendix C contains a copy of the JSND email.

7.3 Biological Resources

As previously indicated, the WEST Biological Resources Report is included as Appendix D of the Application and provides detailed information on species of concern that may occur in or adjacent to the Study Area. Below are short discussions for federally listed species, bald and golden eagles, and Level I State Species of Conservation Priority that may occur within Mercer County. Species accounts providing much greater detail are provided in the WEST Biological Resources Report.

Whooping Crane

Whooping cranes (*Grus americana*) are currently listed as endangered under the Endangered Species Act, except where nonessential experimental populations exist. Whooping cranes typically migrate between their breeding grounds in Wood Buffalo National Park, Canada and wintering areas in Aransas National Wildlife Refuge, Texas, with the majority of the birds passing through North Dakota on each trip. While migrating through North Dakota, whooping cranes will use a variety of habitats including shallow, open wetlands, cropland, and to a lesser extent, open, grazed pasture land.

Limited wetlands exist within the Study Area. The cultivated agricultural fields in the area could serve as potential foraging habitat if whooping cranes are roosting nearby. Given the previously impacted nature of the Study Area and ongoing mining and industrial activities, whooping cranes are highly unlikely to use the local area, and no impacts to whooping cranes are anticipated from the Project.

Piping Plover

The U.S. Northern Great Plains population of piping plovers (*Charadrius melodus*) was listed as threatened in 1986. On September 11, 2002, the USFWS designated critical habitat for the breeding portion of the Northern Great Plains piping plover population, including 11 different critical habitat units in North Dakota, with the nearest being along Lake Sakakawea, approximately 4 miles north of the Project.

In North Dakota, piping plovers utilize barren shores of inland alkali lakes, as well as barren sand bars and shorelines of the Missouri River and associated reservoirs. Feeding areas are usually within wetlands or along the shores or sandbars where nests are located. No habitat for piping plovers exist within the Study Area and no impacts are anticipated to the species.

Rufa Red Knot

The rufa red knot (*Calidris canutus rufa*) is a long-distance migrant which breeds in the Canadian Artic and winters as far south as coastal Argentina. Nonbreeding red knots (probably one-year olds) remain south of the breeding grounds and may be observed in small numbers in the Northern Plains (possibly North Dakota). No habitat for red knots exist within the planned Project construction area and no impacts are anticipated to the species.

Northern Long-eared Bat

The northern long-eared bat (*Myotis septentrionalis*) was listed as threatened in April 2015. There are no known northern long-eared bat hibernacula in North Dakota. During the summer months, this species relies less on caves and more on old growth and late successional forests for roosts and reproduction. During the summer, they roost under the bark of dead and dying trees. Old and mature forests provide habitat (decaying trees,

loose bark, tree snags, and stumps) for roosting, feeding, and maternity colonies of northern long-eared bats. No critical habitat for the species has been identified. Construction and operation of the Project will not impact caves, mature trees, or old buildings. No impacts to northern long-eared bats are anticipated from the Project.

Pallid Sturgeon

The pallid sturgeon (*Scaphirhynchus albus*) was listed as endangered on September 6, 1990 (USFWS 1993). The pallid sturgeon was considered uncommon, and historic population estimates on the upper Missouri River are unknown. Stocking efforts are ongoing through various reaches of the Missouri River, including above Lake Sakakawea. While Mercer County borders Lake Sakakawea, there is no habitat for the species within the Study Area, and no impacts are anticipated to pallid sturgeon.

Dakota Skipper

The Dakota skipper (*Hesperia dacotae*) was not listed in Mercer County until recently (2021) and no critical habitat for the species occurs within Mercer County. The Dakota skipper requires high quality, unbroken prairie habitat containing areas dominated by warm season native grasses and flowering forbs such as prairie cone flower. Broken grasslands or native grasslands with high levels of disturbance are typically unsuitable for Dakota skipper. Grasslands within the Study Area are predominately replanted coal mine land or otherwise broken and other habitats are disturbed due to industrial use. Accordingly, impacts to the Dakota skipper from the Project are unlikely.

Bald and Golden Eagles

Both bald and golden eagles are protected by the MBTA (1918) and the BGEPA (1940). Based on review of aerial and topographic maps and general site reconnaissance, no mature trees or large water bodies were located within the Study Area. While it is possible that both bald and golden eagles could fly through the area, impacts to either eagle species are unlikely given the Study Area is dominated by an active surface mine and ongoing nearby industrial operations.

State Unique or Rare Species

To address the NDPSC Exclusion Area Criterion, "*Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged,"* the WEST Biological Resources Report evaluated NDGFD Level 1 Species of Conservation Priority. The report concluded that most Level 1 species are unlikely to occur within the Study Area or Corridor, because the majority of the Study Area is reclaimed mine land, developed, or cultivated cropland, and the areas adjacent to the Corridor are highly industrialized and have ongoing operations. Accordingly, habitat for animal or plant species that are unique or rare to the state would not be irreversibly damaged.

General Wildlife

Because the majority of the Study Area and Corridor has been disturbed through mining and/or cropland and development, the potential for extensive wildlife use is limited. Avian wildlife is likely restricted to species common to agricultural and reclaimed landscapes in the central portion of North Dakota, such as red-winged blackbird (*Agelaius phoeniceus*), ring-necked pheasant (*Phasianus colchicus*), western meadowlark (*Sturnella neglecta*), horned lark *(Eremophila alpestris*), and possibly various waterfowl species using wetlands for roosting

and grain fields for foraging. Raptors such as red-tailed hawks (*Buteo jamaicensis*) and Swainson's hawks (*Buteo swainsoni*) may forage in the area.

Similar to avian species, extensive use by mammalian wildlife is also likely limited. Small mammals such as various species of voles and mice may occupy the landscape. Medium-sized mammals such as badger (*Taxidea taxus*), coyote (*Canis latrans*), and striped skunk (*Mephitis mephitis*) may also forage within, traverse through, or burrow in the Corridor periodically. Moose (*Alces alces*) were seen within the Study Area during the first site visit, but not along the Corridor. Other potential large mammals could utilize the Study Area, such as white-tailed deer (*Odocoileus virginianus*) and pronghorn (*Antilocapra americana*). Significant impacts on general wildlife are not anticipated from the Project.

7.4 Wetland and Waterbodies Analysis

A desktop analysis of aerial photography, National Wetland Inventory (NWI) maps, and National Hydrography Dataset (NHD) data were used to evaluate the location and extent of mapped wetlands and waterbody features within the Corridor (see Appendix D: WEST Biological Resources Report). While NWI wetlands and NHD waterbodies were identified along the proposed Route and within the Corridor, analysis of aerial photography shows these areas as appearing to be previously disturbed by surface mining activities. Prior to construction, WEST, on behalf of DGC, will field-validate all wetland and waterbody boundaries along the proposed Corridor to ensure avoidance of these features.

7.5 Cultural Resource Inventory

DGC commissioned MAC to conduct a Cultural Resource Inventory of the Corridor to determine whether any historic properties inside the Corridor would be impacted by the Project. Many of the areas in and adjacent to the Corridor have been disturbed by previous mining activities. The results of the Class I and Class III cultural resource surveys are summarized in a MAC memorandum included as Appendix E.

In January 2021, MAC conducted a search of the site and manuscript files at the State Historical Society of North Dakota to determine if any cultural resources had been recorded or if any cultural resource inventories had been conducted within the Corridor and the surrounding one-mile search area.

The file search revealed that 319 cultural resources are recorded in the search area. These resources consist of five multicomponent resources, 55 architectural resources, 42 historic resources, 158 archaeological resources, 58 archaeological isolated finds, and one archaeological site lead. Thirty-eight sites have been recommended as eligible or are listed in the National Register of Historic Places. Three cultural resources overlap with the Corridor, 32ME198, 32ME220, and 32ME733. Sites 32ME198 and 32ME733 are recommended not eligible. Precontact site 32ME220 was recorded in 1977 and last updated in 1980. It contains seven stone circles and an artifact scatter. This cultural resource was recommended eligible and was mitigated in 1989.

The manuscript files search revealed that 65 cultural resource projects have been conducted in the search area. These projects consist of 24 inventories related to mining, nine site mitigations, seven evaluative testing projects, four road development projects, four natural gas pipeline projects, three projects related to the construction of the gasification plant, three historic research projects, two electric transmission line projects,

two river study projects, two projects for water lines, one prehistoric burial recovery project, one project for a commercial building, one Historic American Buildings Survey, one telecommunications project, and one wind farm project. Ten previous inventories overlap with the current project corridor, including MS numbers 225, 3551, 7343, 7562, 7610, 12254, 13885, 14112, 15543, and 16889.

Based on a review of historic and aerial maps, MAC recommended a Class III inventory of 2.33 miles of the Corridor that have not been previously disturbed by mining or other industrial activities. MAC also recommended that site 32ME220, reportedly mitigated in 1989, be revisited to verify its status. SHPO responded on March 24, 2021 concurring with the MAC survey boundary and the recommendation to assess the status of the previously mitigated site. DGC anticipates the Class III survey and SHPO concurrence will be completed by late April 2021.

7.6 Tree/Sapling/Shrub Analysis

Desktop analysis of aerial photography was used to evaluate the location and extent of woody vegetation within the Corridor; woody cover appears to be extremely sparse to non-existent. Prior to construction, DGC will conduct field surveys of the Corridor/Route to inventory woody vegetation in order to comply with the Commission's tree and shrub mitigation policy.

7.7 Other Permits and Approvals

DGC has committed to obtaining applicable permits and regulatory approvals relating to construction and operation of the proposed facilities. The following permits are required or may be required for the Project:

- Mercer County Zoning
- NDPDES General Permit for Construction Stormwater Discharge
- NDPDES General Permit for Temporary (hydrostatic test water) Discharge
- COE Department of the Army Permit (if there are planned impacts to wetlands)
- Mercer County Road Crossing Permits

SECTION 8: MITIGATIVE MEASURES

8.1 Special Pipeline Construction Procedures

DGC would use special construction techniques, such as boring or HDD, when constructing across water bodies, wetlands, roads and railroads.

8.2 Horizontal Directional Drill (HDD) Method

Crossings of any wetlands or waterbodies would be accomplished using the HDD method, which allows for trenchless construction across an area by drilling a hole below the depth of a conventional lay, and then pulling a prefabricated section of pipe through the hole. The method is sometimes used to avoid direct impacts on sensitive environmental features or areas that otherwise present difficulties for standard construction methods.

To begin each crossing, a drill rig would be placed on the entry side of the HDD and a small pilot hole would be drilled along a predetermined path beneath the waterbody or roadway. The pilot hole would be progressively enlarged through a process called reaming. A reaming tool would be installed at the end of the drill string on the exit side of the pilot hole, and then drawn back to the drill rig to enlarge the hole. Several passes with progressively larger reaming tools could be needed to enlarge the hole to a sufficient diameter to accommodate the pipeline. During this process, drilling fluid, or mud, consisting of in-situ material and water would be circulated through the hole to remove drill cuttings and maintain the integrity of the hole. Once the reaming process is complete, a prefabricated segment of pipe would be attached to the drill string on the exit side of the crossing and pulled back through the hole toward the drill rig.

8.3 Wetlands

Wetland crossings using the open trench construction method would be prohibited for the Project. In the event of an unanticipated, future discovery of a wetland, wetland boundaries would be delineated and marked in the field prior to construction activities. As mentioned previously, wetlands would be crossed using the HDD method.

8.4 Road and Railroad Crossings

Construction across paved roads, highways, and railroads would be conducted in accordance with the requirements identified in road and railroad crossing permits or approvals. Most paved roads, highways, and railroads would be crossed by conventional subsurface boring beneath the roadbed or railroad. Boring would consist of excavating a pit on each side of the road or railroad, placing boring equipment within the pits, boring a hole under the roadbed or railroad, and pulling a section of pipe through the hole. For long crossings, sections would be welded into a pipe string before being pulled through the borehole. Typically, there would be little or no disruption to traffic at road, highway, or railroad crossings during boring operations.

Unpaved roads, two-tracks, trails, and driveways, as well as roads in areas with a high water table, would be crossed using the conventional method and then restored to preconstruction condition. Most road crossings would be completed, including road restoration, in a few days.

8.5 Environmental Compliance Inspection and Monitoring

DGC would minimize environmental impacts by complying with applicable permits and approvals and adhering to construction, restoration, or mitigation measures described in this Application. DGC would familiarize its contractors with the applicable environmental requirements and would monitor compliance during construction.

DGC would conduct post-construction monitoring to document restoration and revegetation of the ROW and other disturbed areas. DGC would monitor disturbed areas for a period of three years or until vegetation is reestablished in accordance with the SWPPP.

8.6 Unanticipated Discovery Plan

DGC has developed an Unanticipated Discovery Plan (UDP) that details steps to take if previously unknown archaeological or paleontological resources or human remains are encountered during construction. Appropriate authorities would be notified in accordance with local and state rules, laws, and guidelines in the event that human remains are discovered. The UDP may be found in Appendix H.

8.7 DGC Policies and Commitments to Limit Environmental Impacts

DGC has a long history of working to protect the quality of the natural and human environment. Through the American Chemistry Council's Responsible Care initiative, DGC has made a commitment to improve their environmental, health, safety, and security performance. Among others, DGC believes and subscribes to the following principles:

- To work with customers, carriers, suppliers, distributors, and contractors to foster the safe and secure use, transport, and disposal of chemicals, and provide hazard and risk information that can be accessed and applied in their operations and products.
- To design and operate our facilities in a safe, secure, and environmentally sound manner.
- To instill a culture throughout all levels of our organizations to continually identify, reduce, and manage process safety risks.
- To promote pollution prevention, minimization of waste and conservation of energy, and other critical resources at every stage of the life cycle of our products.

DGC's Responsible Care Policy and Responsible Care Guiding Principles are included in Appendix I.

SECTION 9: FACTORS CONSIDERED

NDCC 49-22.1-09 of the North Dakota Energy Conversion and Transmission Facility Siting Act lists 11 factors to guide the PSC in the evaluation of Sites, Corridors, and Routes. The following sections address these factors where applicable to the Corridor and Route.

9.1 Public Health and Welfare, Natural Resources, and the Environment

Sections 5 and 7 discuss the effects of the proposed facility on public health and welfare, natural resources, and the environment. Section 8 sets forth proposed mitigation methods to be used for construction in sensitive areas. Section 6 discusses construction, operation, and maintenance techniques relating to pipeline safety. The Project would provide environmental and economic benefits. The geologic storage of CO_2 will benefit the state and the global environment by reducing greenhouse gas emissions. Geologic storage of CO_2 is also expected to help ensure the viability of the state's coal and power industries, resulting in economic benefit to North Dakota and its citizens. All impacts evaluated in the Corridor/Route are expected to be minor.

9.2 Technologies to Minimize Adverse Environmental Effects

DGC would utilize recent pipeline construction technologies, such as HDD, in order to minimize impacts to the environment. Sections 2 and 6 discuss the engineering and operational design of the Project, including proposed pipeline construction techniques.

9.3 Potential for Beneficial Uses of Waste Energy

This factor is not applicable to this project.

9.4 Unavoidable Adverse Environmental Effects of the Corridor/Route

Sections 5, 7, and 8 detail the expected environmental impacts and mitigation in relation to the proposed Corridor/Route. The environmental effects of the Project are minor, given the short length of the pipeline and the heavily developed, industrial setting in the vicinity of Project.

Unavoidable adverse environmental effects include minor visual and physical impacts to the land associated with construction. DGC would implement the mitigation discussed in this Application and as identified by regulatory agencies in order to minimize these unavoidable adverse environmental effects.

9.5 Alternatives to Corridor/Route Identified During the Hearing Process

Alternatives may be identified at the hearing; however, DGC believes its analysis of alternatives was appropriate for the Project size and scope.

9.6 Irreversible and Irretrievable Commitment of Natural Resources

There are few commitments of resources associated with this Project that are irreversible and irretrievable, but include those resources related to construction, such as steel, concrete, aggregate, and hydrocarbon fuel. None of these resources, however, are in short supply, and their use for the Project would not have an adverse effect on the availability of these resources.

9.7 Direct and Indirect Economic Impacts of the Proposed Facility

Direct and indirect economic impacts are primarily positive. To the extent that local contractors are used for portions of the construction, total wages and salaries paid to contractors and workers would contribute to the total personal income of the region. Expenditures made for equipment, energy, fuel, operating supplies, and other products and services also benefit businesses in the county and the state. Most importantly, the successful geologic storage of CO_2 is expected to help ensure the viability of the state's coal and power industries, resulting in economic benefit to North Dakota and its citizens.

9.8 Existing Development Plans of the State, Local Government and Private Entities at or in the Vicinity of the Corridor and Route

There are no known development plans that conflict with the Project. DGC would comply with applicable county zoning ordinances; as such, no conflicts are anticipated.

9.9 Effect of Route on Cultural and Paleontological Resources

DGC commissioned MAC to conduct a Cultural Resource Inventory of the Corridor. The research and fieldwork conducted by MAC identified no new cultural resources; however, one (1) previously recorded cultural resource site (32ME220) partially overlaps the Corridor. The site was previously mitigated and was subsequently destroyed by mining; no avoidance of the site and no further work were recommended. MAC made a recommendation to the SHPO for a *No Significant Sites* determination for the undertaking as inventoried, mapped, and documented on April 16, 2021. DGC anticipates SHPO concurrence by mid-May, 2021.

The Corridor is located in an area affected by Pleistocene glaciation; as such, paleontological resources would be extremely rare since the bedrock is covered by glacial sediments.

DGC developed and UDP details steps to take if previously unknown archaeological resources or human remains are encountered during construction. Appropriate authorities would be notified in accordance with local and state rules, laws, and guidelines in the event that human remains are discovered.

9.10 Effect of Route on Sensitive Species and Habitats

Sections 5 and 7 discuss potential impacts to biological resources such as wetlands, vegetation, wildlife, and rare and unique species. Based on consultations with various state and federal agencies, the short length of the pipeline and DGC's commitment to utilize HDD techniques to cross sensitive areas (wetlands), impacts of the Project on biological resources are expected to be minimal.

Federally-listed species such as the whooping crane and piping plover may occur within Mercer County. Given the heavily developed, industrial landscape in the vicinity of the Project, it is more likely these species would utilize suitable habitat elsewhere. No critical or sensitive habitat was identified in the vicinity of the Project. No effects on rare or sensitive species and habitats are expected.

9.11 Concerns Raised by Agencies

DGC sought review and comment on the Project from state and federal agencies as part of the scoping process used in the preparation of this Application. Agency comments varied according to agency function and jurisdiction, but agency comments generally emphasized a desire to minimize impacts to environmental resources such as wetlands, wildlife, and cultural resources. Agency comment letters regarding the Project are included in Appendix C.

SECTION 10: LIST OF PREPARERS

Table 7 - List of Preparers

Name Project Role	Education And Professional Experience
Kevin Solie, P.E. Environmental Studies, NDPSC Application	B.S. Geology B.S. Geological Engineering M.S. Geology 29 Years of Experience
Tyler Schilke, P.E. Project Manager	B.S. Mechanical Engineering 17 Years of Experience
Mike Murray Right-of-Way	A.A. Business Administration B.S. Management SR/WA (Senior ROW designation) 26 Years of Experience
Jason Brekke GIS Analyst	B.S. Geography 18 Years of Experience

APPENDIX A

ENGINEERING DOCUMENTS

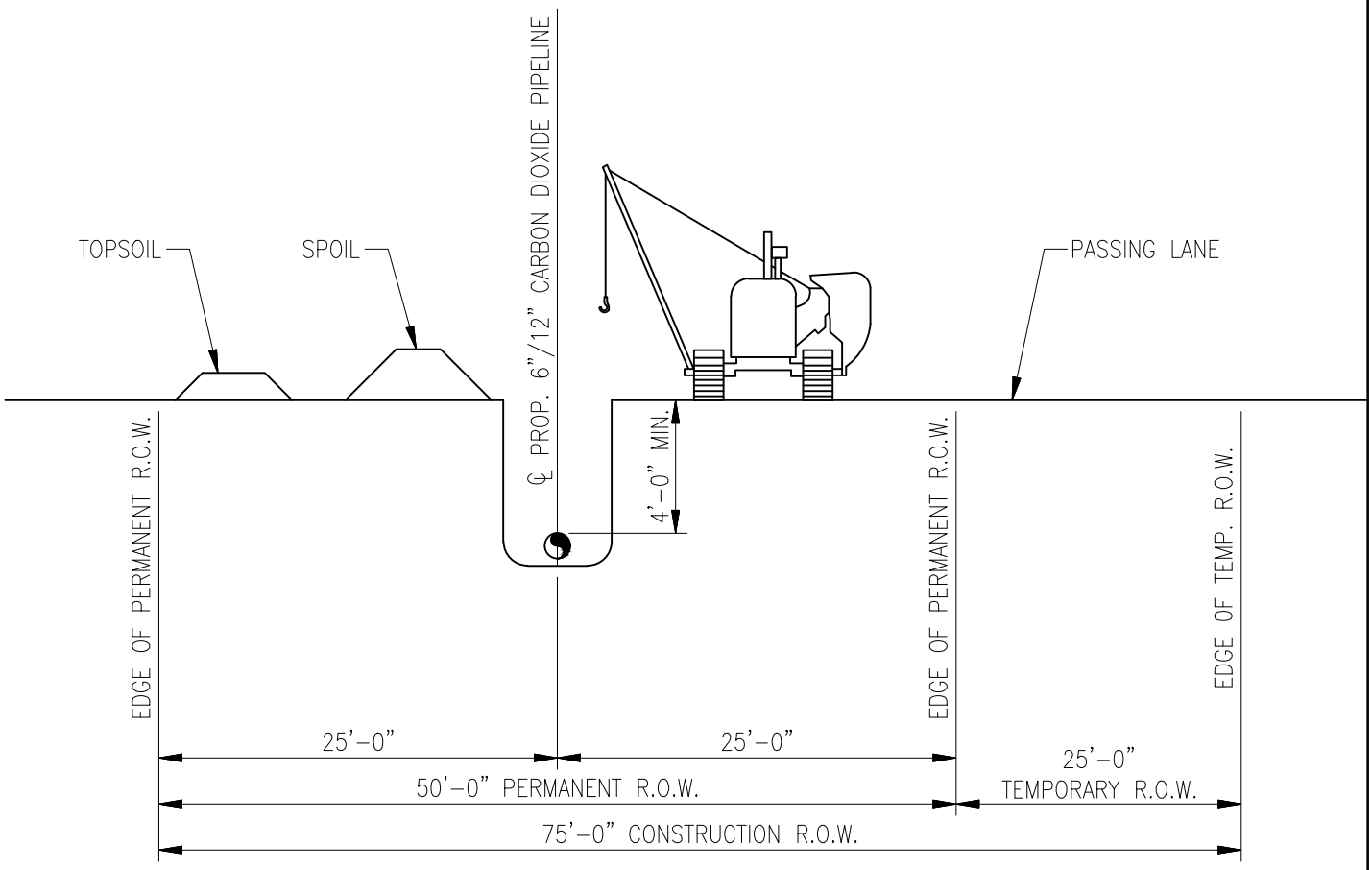
DESIGN DATA REPORT

Dakota Gasification Company

Dakota Carbon Pipeline Project

April 2021

Pipeline Design Component	**Value**
Type	Carbon Dioxide
Material	Steel
Maximum Allowable Operating Pressure (MAOP)	2700 psig
Maximum Operating Temperature	120° F
Stages of Pressure Reduction	0
Number of Block Valves	7
Number of Metering Stations	6
Minimum Burial Depth	4 feet
Permanent ROW Width	50 feet
Temporary ROW Width	75 feet
Mainline	
Size	12 inch Nominal Diameter
Wall thickness	0.375-0.625 inches
Length	2.9 miles
Laterals	
Size	6 in Nominal Diameter
Wall thickness	0.280-0.432 inches
Length	3.9 miles



NOTES:

1.) PASSING LANE LOCATION STATION DEPENDENT
2.) CORRESPONDING STATIONS TO BE ADDED POST DESIGN PHASE.

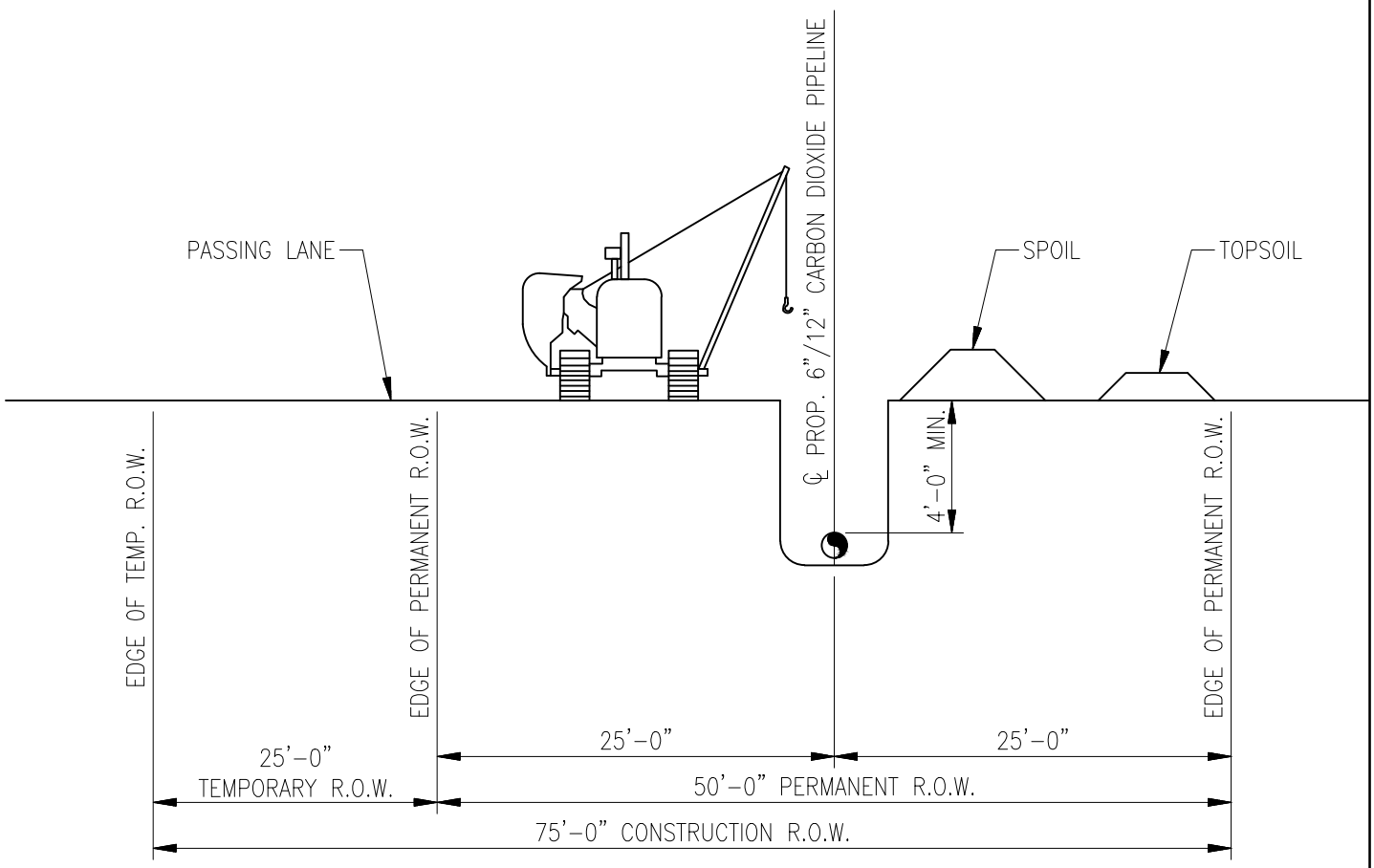
DAKOTA GASIFICATION COMPANY
420 COUNTY ROAD 26
BEULAH, ND 58523-9400

PROPOSED 6"/12" CARBON DIOXIDE CONSTRUCTION RIGHT OF WAY (VIEWED IN DIRECTION OF FLOW)

REV	ISSUE DATE	DESCRIPTION	DWN	CHK	APP	APP	APP
0	4/8	DAKOTA CARBON PIPELINE EXHIBIT	JB	TS			

DWG. NO: A7600-001C
REV. NO. 0
LOC. NO: A00039745

A00039745



NOTES:

1.) PASSING LANE LOCATION STATION DEPENDENT
2.) CORRESPONDING STATIONS TO BE ADDED POST DESIGN PHASE.

DAKOTA GASIFICATION COMPANY
420 COUNTY ROAD 26
BEULAH, ND 58523-9400

PROPOSED 6"/12" CARBON DIOXIDE CONSTRUCTION RIGHT OF WAY (VIEWED IN DIRECTION OF FLOW)

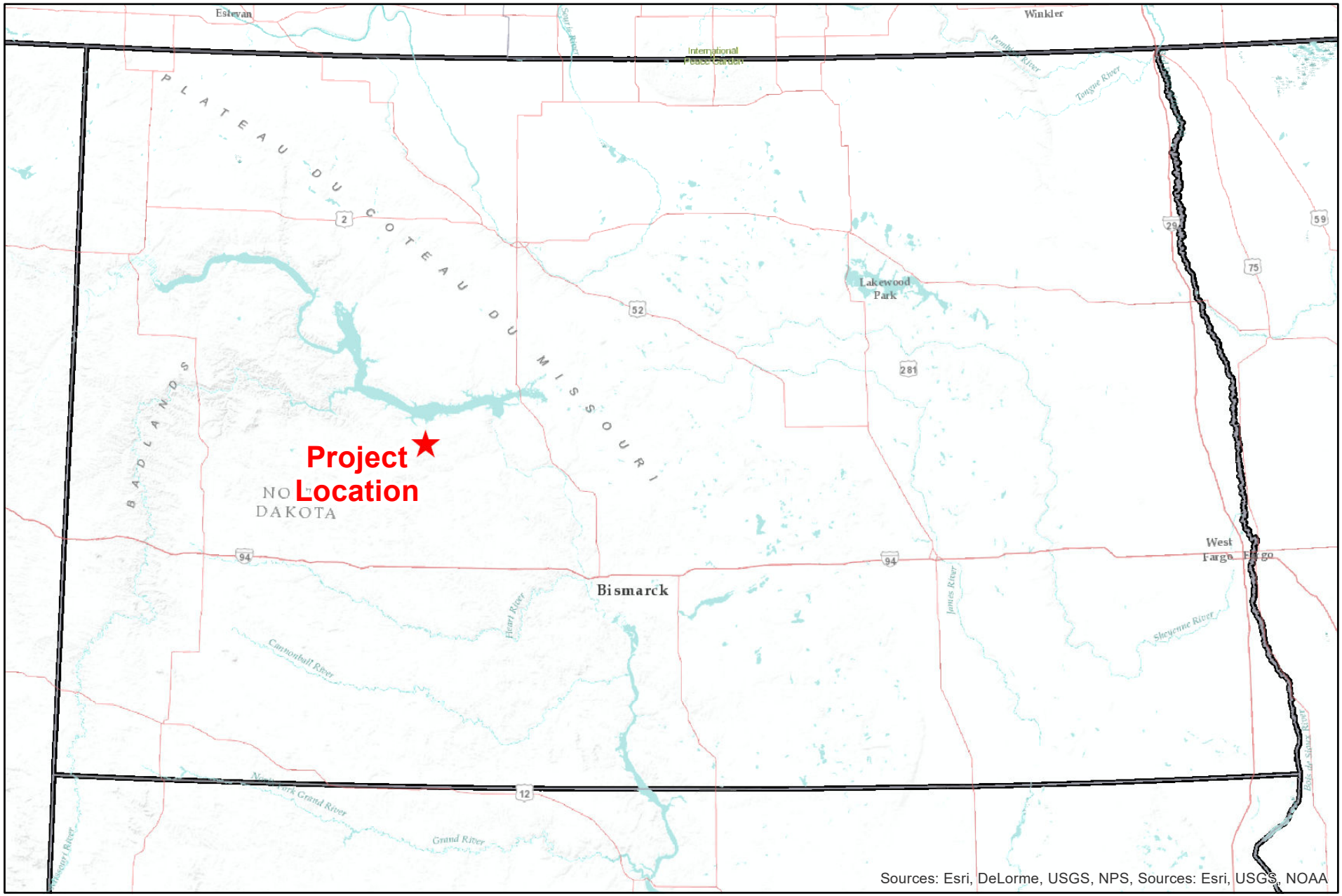
REV	ISSUE DATE	DESCRIPTION	DWN	CHK	APP	APP	APP
0	4/8	DAKOTA CARBON PIPELINE EXHIBIT	JB	TS			

DWG. NO: A7600-002C
REV. NO. 0
LOC. NO: A00039746

A00039746

APPENDIX B

PROJECT MAPS

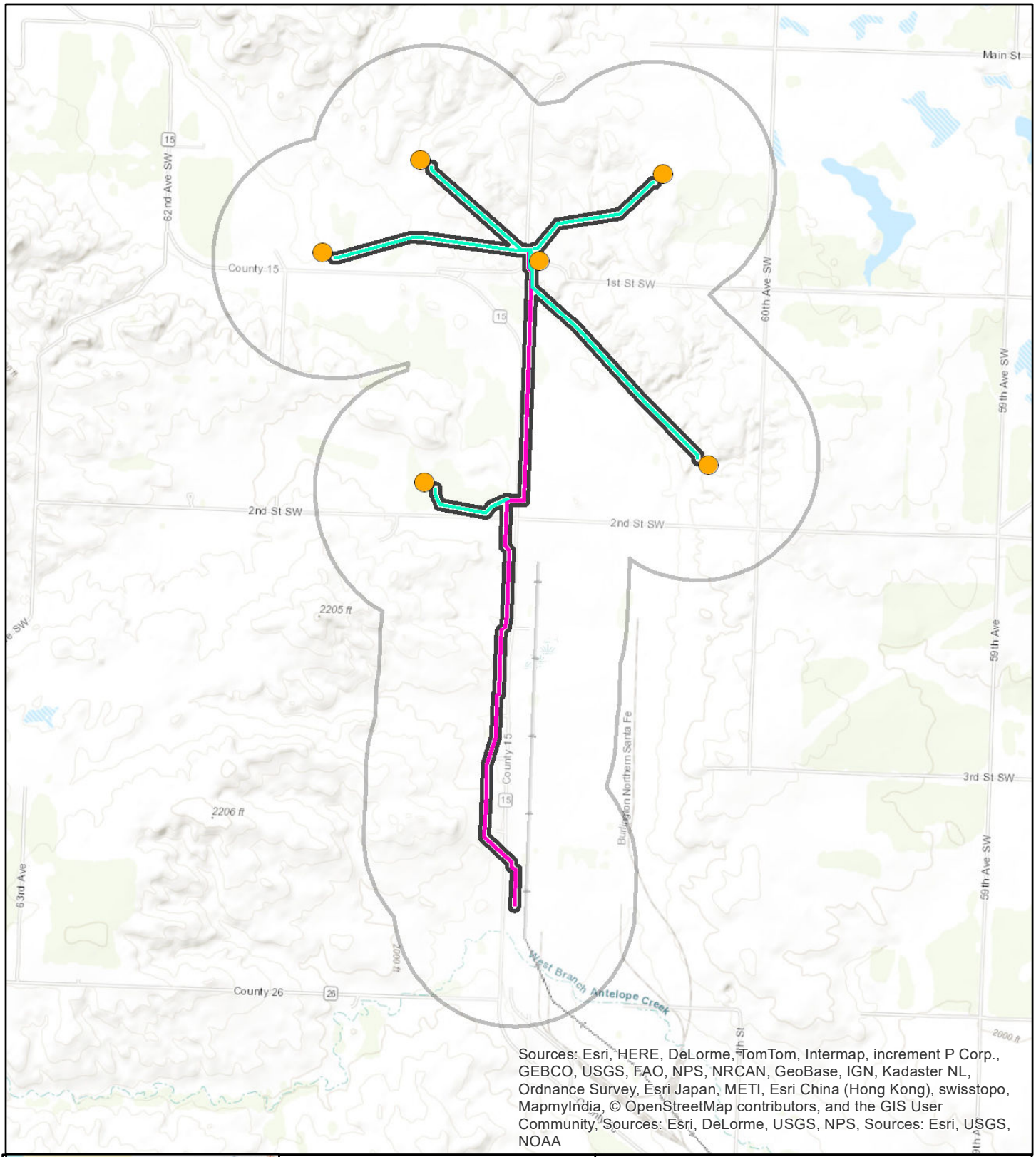


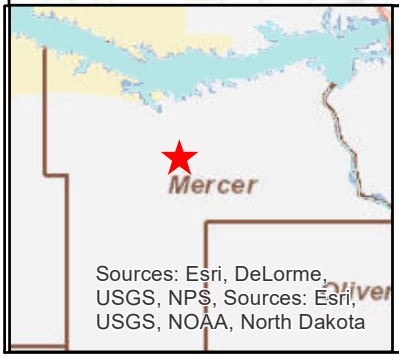
DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

N W E S

0 25 50 100 Miles

Figure 1
Project Location Overview
Dakota Carbon Pipeline Project





Map Features

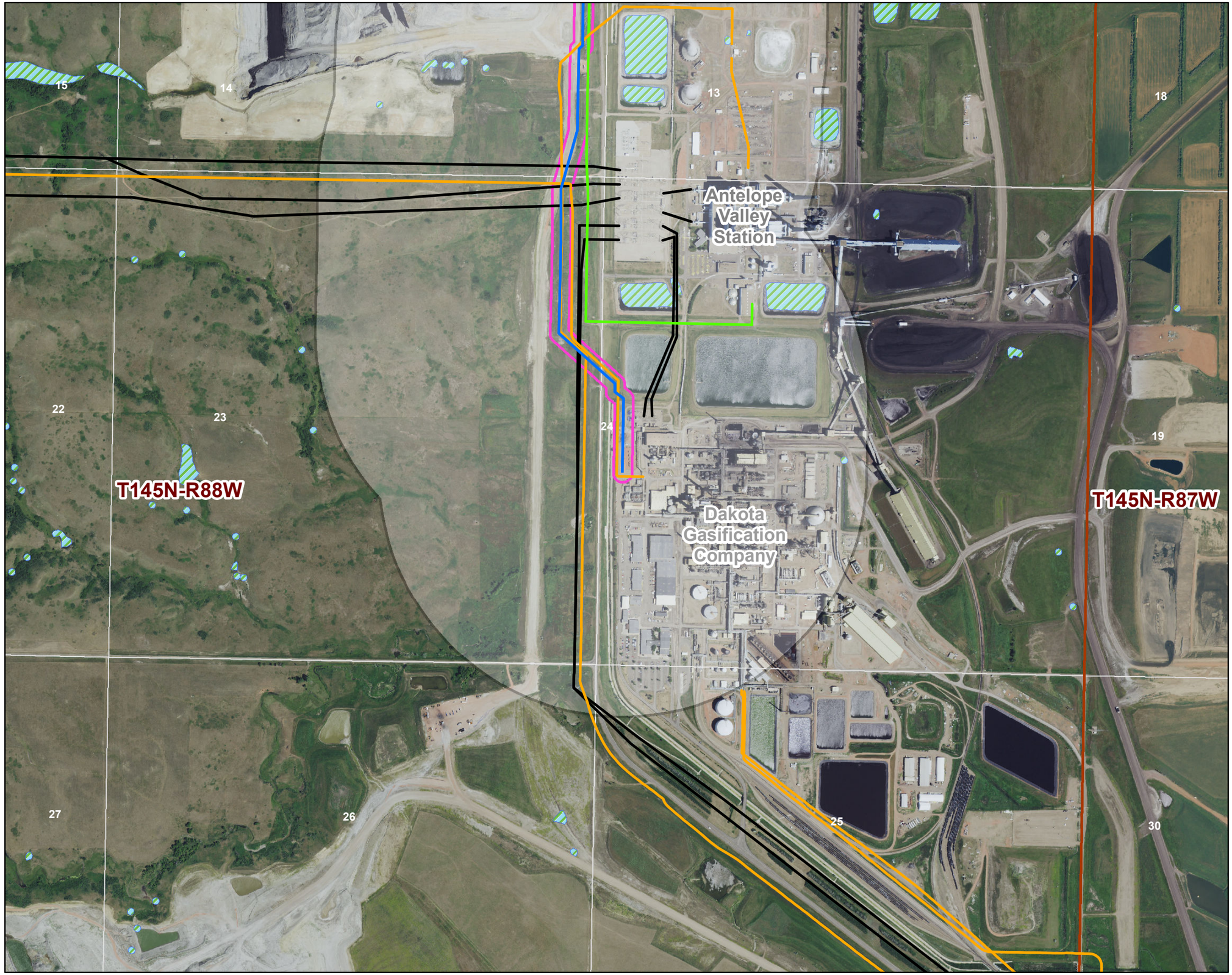
- CO2 Injection Well Locations
- Preferred Route - Main Line
- Preferred Route - Branch Line
- Study Area
- 200' Siting Corridor

Date: 04/20/2021

Figure 2
Dakota Carbon Pipeline Project Site Plan

N
W E
S

0 1 Miles



Vicinity Map

Legend

- Proposed Well Locations
- Proposed Pipeline Route
- DGC Pipelines
- AVS Raw Water Pipeline
- Electric Transmission Lines
- Proposed Well Sites
- Study Area
- 200' Siting Corridor
- NWI Wetlands
- Avoidance Areas
- Exclusion Areas
- Townships
- Sections

N
W E
S

0 500 1,000 2,000 Feet

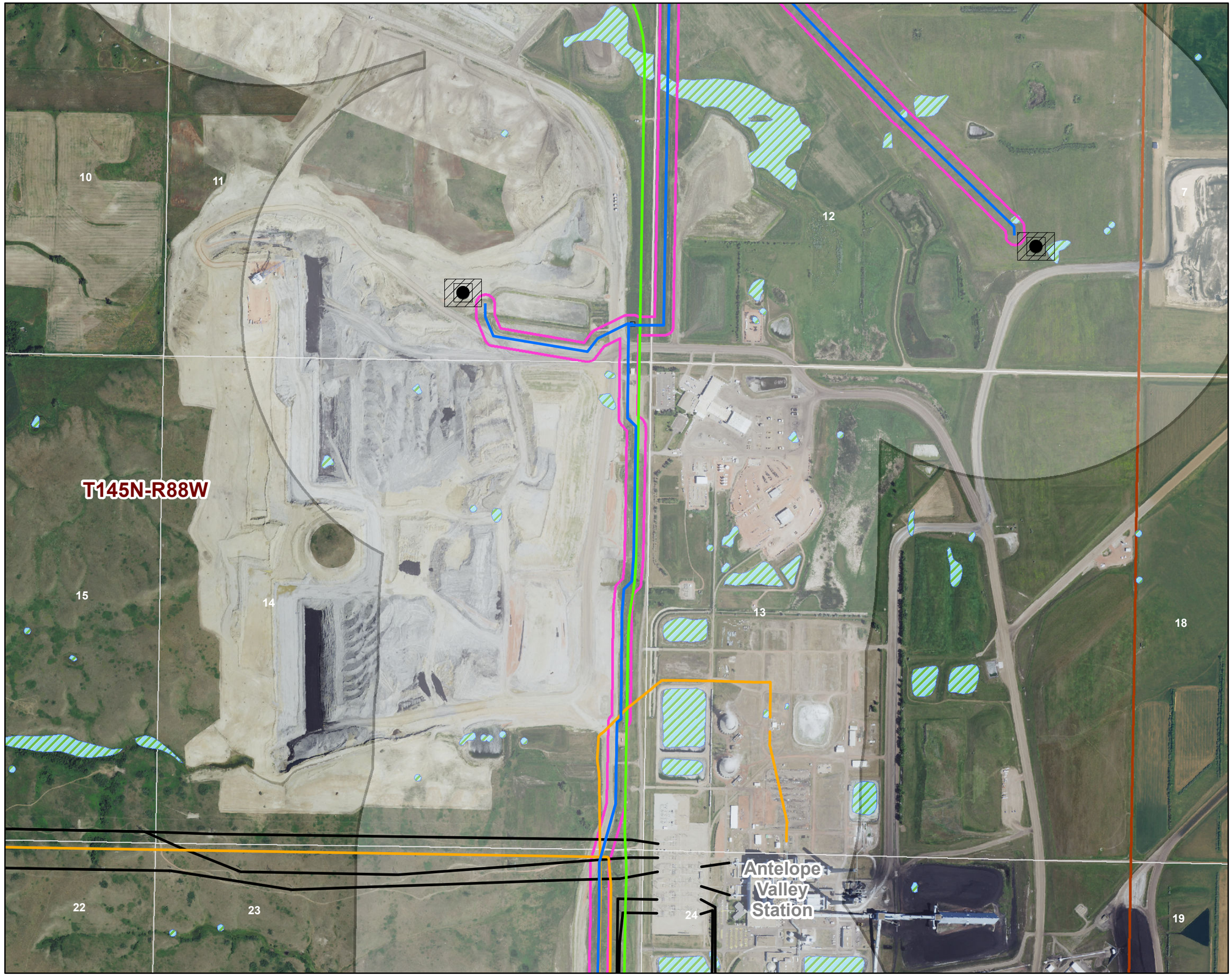
Figure 3
Exclusion/Avoidance Areas

Dakota Carbon Pipeline Project

Mercer County, ND

Date: 04/20/2021

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY



Vicinity Map

Legend

- Proposed Well Locations
- Proposed Pipeline Route
- DGC Pipelines
- AVS Raw Water Pipeline
- Electric Transmission Lines
- Proposed Well Sites
- Study Area
- 200' Siting Corridor
- NWI Wetlands
- Avoidance Areas
- Exclusion Areas
- Townships
- Sections

N W E S

0 500 1,000 2,000 Feet

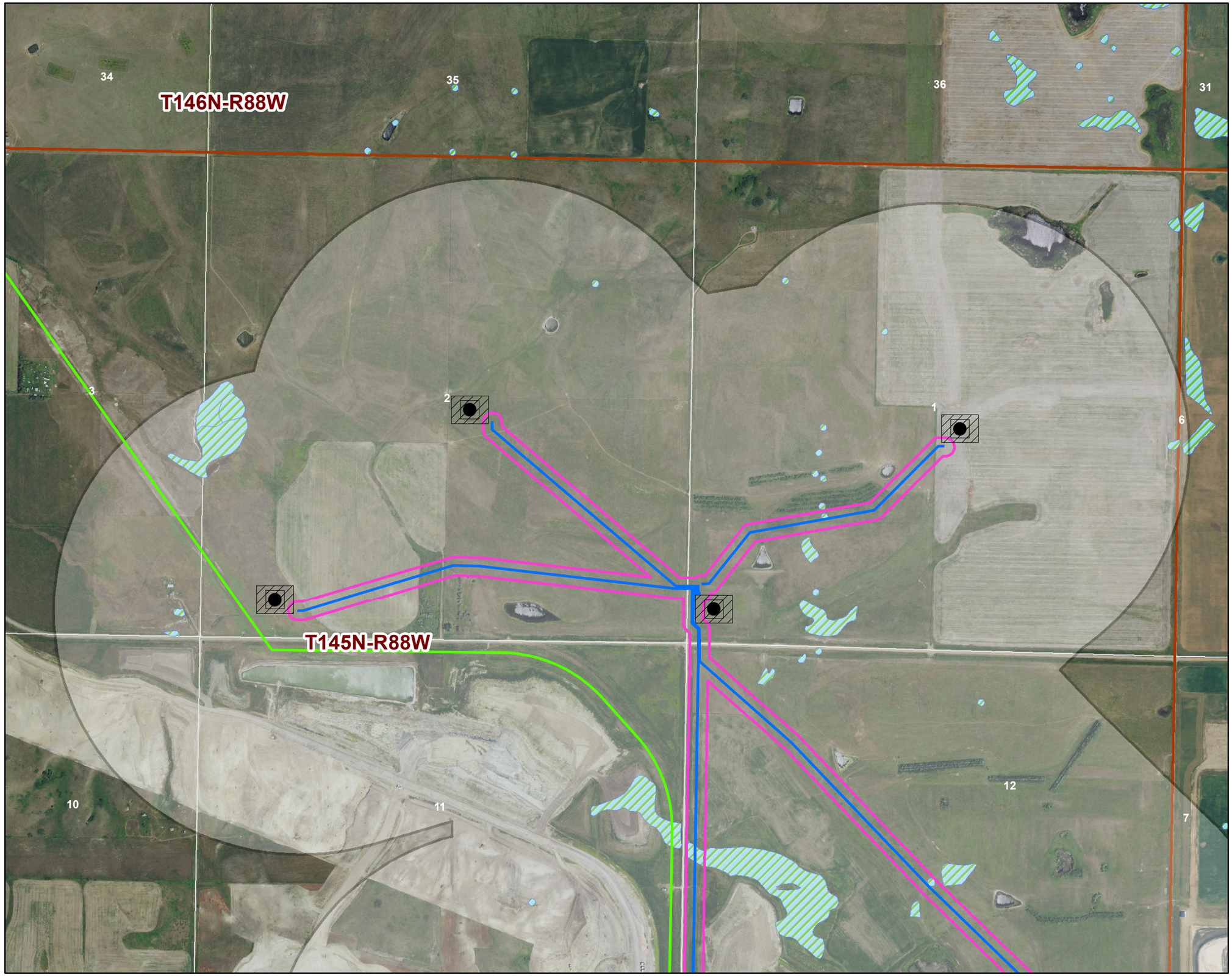
Figure 3
Exclusion/Avoidance Areas

Dakota Carbon Pipeline Project

Mercer County, ND

Date: 04/20/2021

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY



Vicinity Map

Legend

- Proposed Well Locations
- Proposed Pipeline Route
- DGC Pipelines
- AVS Raw Water Pipeline
- Electric Transmission Lines
- Proposed Well Sites
- Study Area
- 200' Siting Corridor
- NWI Wetlands
- Avoidance Areas
- Exclusion Areas
- Townships
- Sections

N W E S

0 500 1,000 2,000 Feet

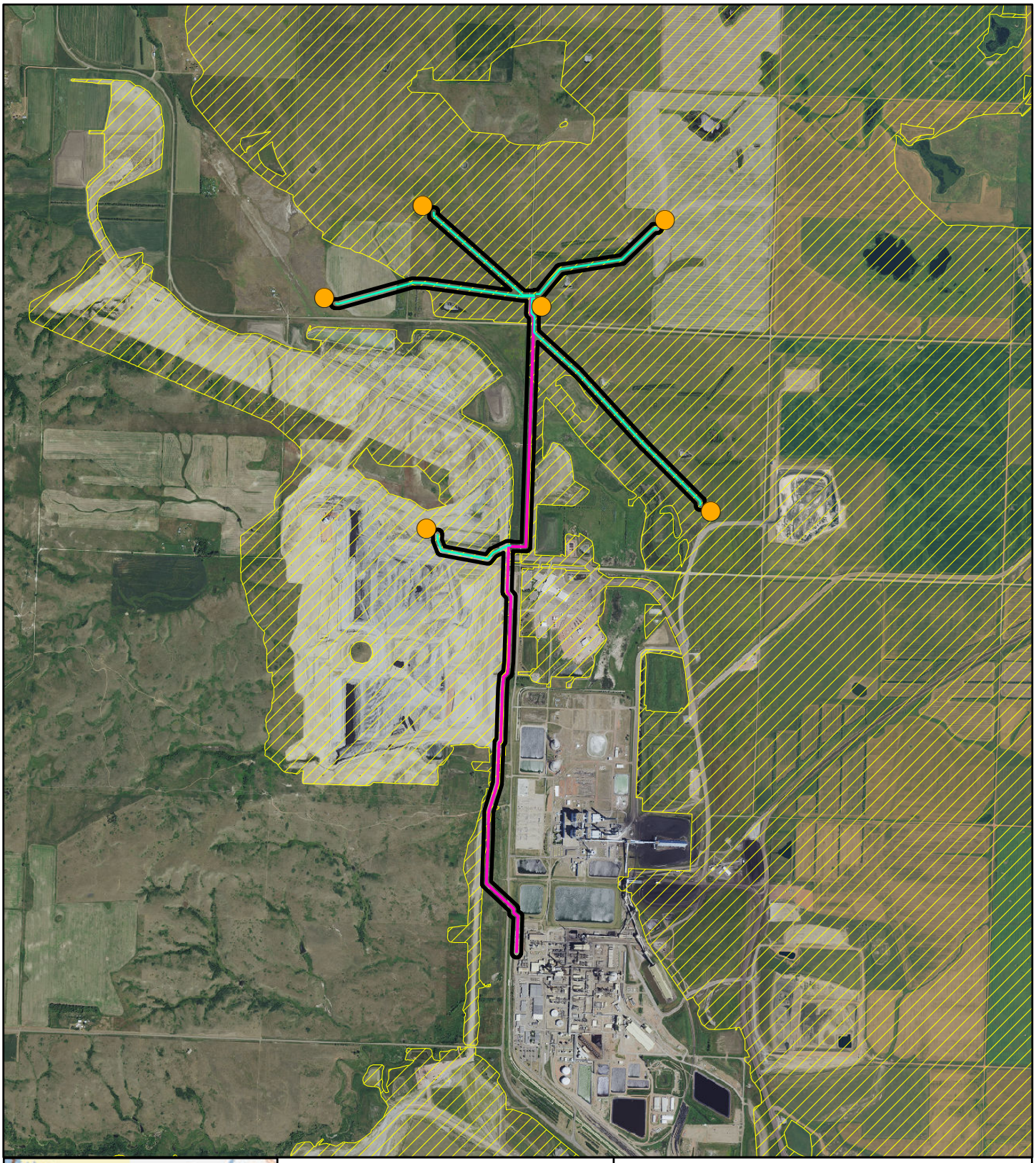
Figure 3
Exclusion/Avoidance Areas

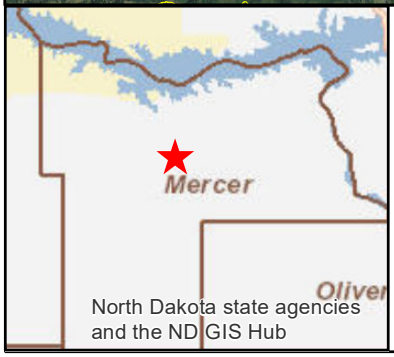
Dakota Carbon Pipeline Project

Mercer County, ND

Date: 04/20/2021

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY





Map Features

- CO2 Injection Well Locations
- Preferred Route - Main Line
- Preferred Route - Branch Line
- 200' Siting Corridor
- Coteau Topsoil Stripping Limits

Date: 04/20/2021

Figure 4
Dakota Carbon Pipeline Project
Areas Disturbed by Mining

N
W E
S

0 0.5 1 Miles

APPENDIX C

CONSULTATIONS

BASIN ELECTRIC POWER COOPERATIVE

1717 EAST INTERSTATE AVENUE
BISMARCK, NORTH DAKOTA 58503-0564
PHONE: 701-223-0441
FAX: 701-557-5336

January 27, 2021

Re: Proposed Dakota Carbon Pipeline - Request for Comments

Dear:

Dakota Gasification Company (DGC) is proposing to construct an approximately 6.7 mile long 14-inch diameter carbon dioxide (CO2) pipeline from DGC's Great Plains Synfuels Plant to six (6) CO2 geologic sequestration well locations in central Mercer County, North Dakota. A yet-to-be formed subsidiary of DGC would own the pipeline; DGC would be responsible for pipeline operation and maintenance. The purpose of the Dakota Carbon Pipeline (Project) is to provide CO2 to a third-party (not DGC or a subsidiary of DGC) who would be responsible for geologic sequestration of the CO2. The third-party would also be responsible for other permits and approvals, including compliance with the North Dakota State Industrial Commission (NDIC) regulations relating to the injection and geologic storage of CO2.

The pipeline would be buried at a minimum depth of four feet within a 50 foot right-of-way. The Project would include ancillary facilities such as pig launching and receiving stations, cathodic protection and communication systems, buildings, fencing and miscellaneous minor structures. The proposed pipeline would commence construction in late summer or early fall of 2021 and would be in service during the first or second quarter of 2022.

DGC plans to submit a consolidated application for a Certificate of Corridor Compatibility and Transmission Facility Route Permit for the Project to the North Dakota Public Service Commission (NDPSC) in late-March 2021. The purpose of this letter is to provide notification of the Project and to seek your comments. Copies of all correspondence received in response to this letter will be included with the application to the NDPSC. We request your consideration of a one-mile-wide Study Area for a proposed pipeline line route as shown on the attached map. The Study Area encompasses all or part of the following legal locations:

County	Township	Range	Sections
Proposed Route Study Area			
Mercer	145 N	87 W	6, 7, 18
	145 N	88 W	1, 2, 3, 10, 11, 12, 13, 14, 23, 24, 25, 26

We would appreciate receiving your comments by March 3, 2021. If no reply is received, it will be assumed that you have no comment on the Project. If you require further information or have questions regarding this matter, please do not hesitate to contact me at 701.577.5495 or ksolie@bepc.com.

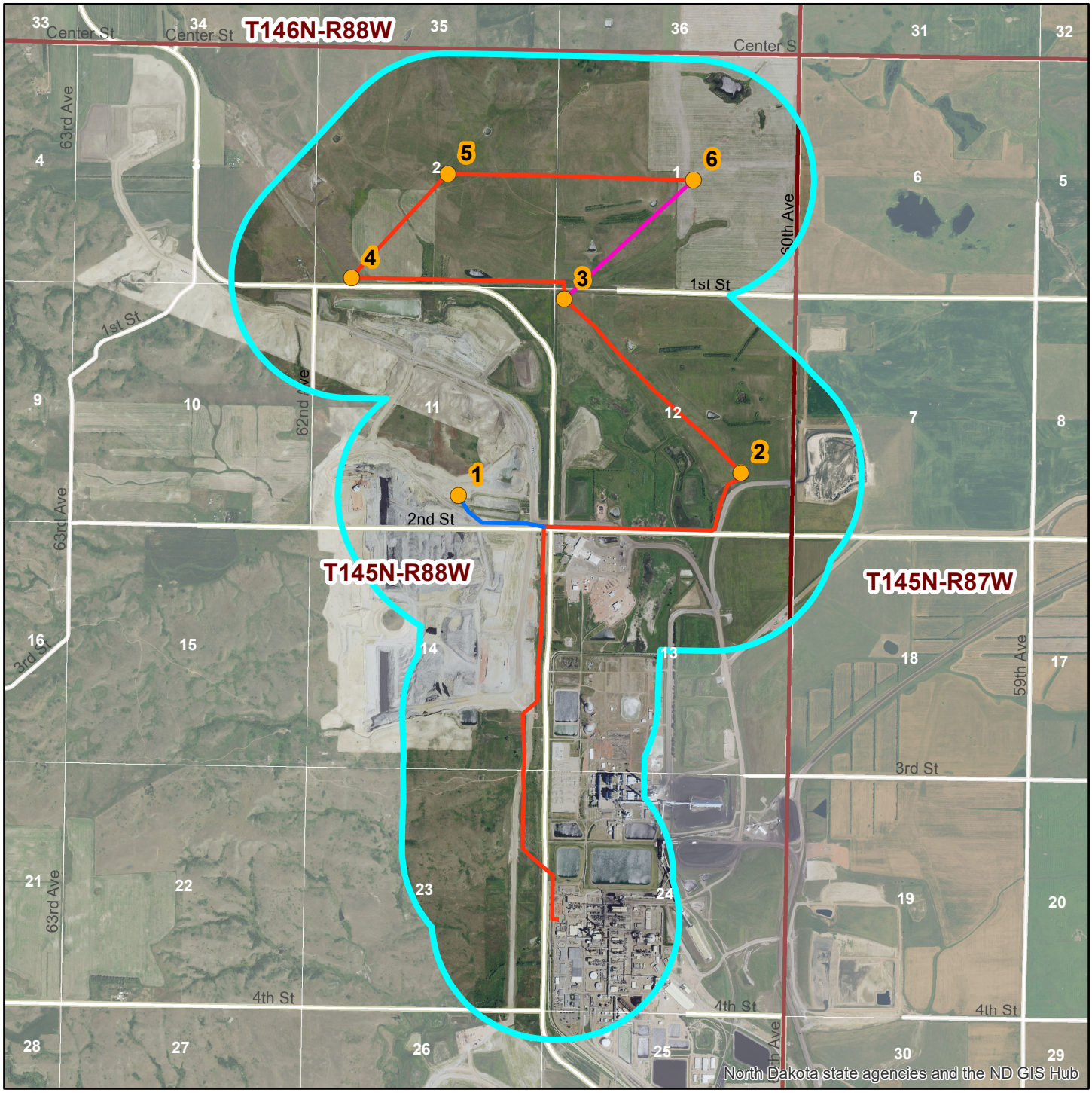
Sincerely,

Kevin L. Solie, P.E.
Senior Environmental Compliance Administrator

Attachment

Dakota Carbon Pipeline Project

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY



Map Features

- CO2 Injection Well Locations
- Preferred Route - Main Line
- Reduced Diameter Branch Route
- Alternate Route
- Study Area
- Townships
- Sections

N
W E
S

0 0.5 1 Miles

Date: 01/27/2021

Aerial Imagery Acquisition Date/Source:
June 27, 2020 / USDA NAIP Imagery

Kyle C. Wanner, Director
ND State Aeronautics Commission
PO Box 5020
Bismarck ND 58502-5020

Wayne Stenehjem, Attorney General
Office of the Attorney General
600 E Boulevard Avenue, Dept. 125
Bismarck ND 58505

Doug Goehring, Agriculture Commissioner
ND Department of Agriculture
600 E Boulevard Avenue, Dept. 602
Bismarck ND 58505

Dirk Wilke, Interim State Health Officer
ND Department of Health
600 E Boulevard Avenue, Dept. 301
Bismarck ND 58505

Christopher D. Jones, Executive Director
ND Department of Human Services
600 E. Boulevard Avenue, Dept. 325
Bismarck ND 58505

Erica Thunder, Commissioner of Labor
ND Department of Labor and Human Rights
600 E. Boulevard Avenue, Dept. 406
Bismarck ND 58505

Wayde Sick, Director and Executive Officer
ND Department of Career and Technical Education
600 E. Boulevard Avenue, Dept. 270
Bismarck ND 58505

Michelle Kommer, Commissioner
ND Department of Commerce
1600 E. Century Avenue, Suite 2
Bismarck ND 58503

Rick Owings, Director
Energy Infrastructure and Impact Office
1707 N. 9th Street
Bismarck ND 58501

Terry Steinwand, Director
ND Game and Fish Department
100 N. Bismarck Expressway
Bismarck ND 58501

Karlene Fine
ND Industrial Commission
600 E. Boulevard Avenue, Dept. 405
Bismarck ND 58505

Governor Doug Burgum
Office of the Governor, State of North Dakota
600 E. Boulevard Avenue, Dept. 101
Bismarck ND 58505

William Panos, Director
ND Department of Transportation
608 E. Boulevard Avenue
Bismarck ND 58505

Claudia Berg, Director
State Historical Society of North Dakota
612 E. Boulevard Avenue
Bismarck ND 58505

Scott Davis, Executive Director
ND Indian Affairs Commission
600 E. Boulevard Avenue, Room #117
Bismarck ND 58505

Bryan Klipfel, Executive Director
Job Service of North Dakota
PO Box 5507
Bismarck ND 58506

Jodi A. Smith, Land Commissioner
ND Department of Trust Lands
1707 N 9th Street
Bismarck ND 58501

Andrea Travnicek, Director
ND Parks and Recreation Department
1600 E. Century Avenue, Suite 3
Bismarck ND 58506

Barton Schott, Chair
ND State Soil Conservation Committee
2718 Gateway Avenue, Suite 304
Bismarck ND 58503

John Paczkowski, State Engineer
ND State Water Commission
900 E. Boulevard
Bismarck ND 58505

US Department of Defense
1400 Defense Pentagon
Washington DC 20301

Drew Becker, Deputy Field Supervisor
US Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck ND 58501

U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck ND 58504

Rebecca MacPherson, Regional Administrator
Federal Aviation Administration
Great Lakes Region
O'Hare Lake Office Center
2300 East Devon Avenue
Des Plaines IL 60018

Gene Wolf, Chairman
Mercer County Commission
PO Box 39
Stanton ND 58571

John Weeda
North Dakota Transmission Authority
1016 E. Owens
Bismarck ND 58502

Justin Kringstad, Director
North Dakota Pipeline Authority
600 E. Boulevard Avenue, Dept. 405
Bismarck ND 58505

David Glatt, Director
North Department of Environmental Quality
918 E. Divide Avenue
Bismarck ND 58501

External Email - Use caution clicking links or opening attachments

Kevin, as we discussed today, complete this form when you get the estimate/bid in for the CO2 pipeline. Any questions please call.

Micheal Skachenko

Field Representative Supervisor

Respectful | Loyal | Collaborative | Purposeful

701.328.5017 • 701.328.5050 (f) • mskachenko@nd.gov

NORTH Dakota | Job Service

Be Legendary.

701.328.2825 • jsinfo@nd.gov • jobsnd.com • 1601 E Century Ave. • Bismarck, ND 58503

CONSTRUCTION PROJECT REGISTRATION

UNEMPLOYMENT INSURANCE/TAX & FIELD SERVICES

SFN 52990 (R.6-08)

Job Service North Dakota
PO Box 5507
Bismarck ND 58506-5507
701-328-2414
Fax 701-328-1882
TTY 1-800-366-6888

Date: _____ Project Name: _____ Project #: _____

Owner/Contractor: _____ NDSUI Acct. #: _____

Project Start Date: _____

Estimated Project Completion Date: _____

Bid Letting Date: _____

Number of Employees (of all contractors on the project): _____

CALCULATION OF TOTAL CONSTRUCTION COSTS:

(excluding pre-construction design & engineering costs)

Labor	_____
Equipment	_____
Materials	_____
Field Engineering (occurring after project is bid)	_____
Inspection (occurring after project is bid)	_____
Other - Specify _____	_____
Other - Specify _____	_____
TOTAL CONSTRUCTION COSTS:	_____

CONTACT PERSON | TITLE | TELEPHONE # | DATE

SIGNATURE OF AUTHORZED REPRESENTATIVE | TITLE | TELEPHONE # | DATE

NORTH Dakota | Parks & Recreation
Be Legendary.

March 3, 2021

Kevin L. Solie
Basin Electric Power Cooperative
1717 East interstate Avenue
Bismarck, ND 58503

Re: Proposed Dakota Carbon Pipeline- Dakota Gasification Company

Dear Mr. Solie,

The North Dakota Parks and Recreation Department (NDPRD) has reviewed the above-referenced proposed Dakota Carbon Pipeline project in Mercer County, North Dakota.

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

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

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

The North Dakota Natural Heritage biological conservation database has reviewed the project 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, we have no known rare species or significant ecological communities documented within or immediately adjacent to the project site. Because the Natural Heritage 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 absence of data may indicate that the project area has not been surveyed, rather than confirm that it lacks natural heritage resources.

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

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

Kathy Duttenhefner

Kathy Duttenhefner
Coordinator/Biologist II, Natural Resources Division

1600 East Century Ave. Ste. 3 | Bismarck, ND 58503
PHONE: 701-328-5357 | FAX: 701-328-5363 | EMAIL: parkrec@nd.gov | WEBSITE: www.parkrec.nd.gov

February 8, 2021

Mr. Kevin Solie
Basin Electric Power Cooperative
1717 E Interstate Ave
Bismarck, ND 58503

ND SHPO Ref.:21-5426 Proposed Dakota Carbon Pipeline in portions of [T145N R87W Sections 6, 7, &18] & [T145N R88W Sections 1-3, 10-14, & 23-26], Mercer County, North Dakota

Dear Mr. Solie,

We reviewed ND SHPO Ref.:21-5426 Proposed Dakota Carbon Pipeline in portions of [T145N R87W Sections 6, 7, &18] & [T145N R88W Sections 1-3, 10-14, & 23-26], Mercer County, North Dakota and we concur with the Concur with the proposed study area. There is a high density of sites within and near study area, therefore we would need for a Class III Cultural Resource Inventory of for all portions of project, including previously surveyed portions, and look forward to reading the report.

Thank you for the opportunity to review this project. If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577, e-mail lsteckler@nd.gov

Sincerely,

for William D. Peterson PhD
State Historic Preservation Officer
(North Dakota)

21-5426

March 24, 2021

Mr. Kevin Solie
Basin Electric Power Cooperative
1717 E Interstate Ave
Bismarck, ND 58503

ND SHPO Ref.: 21-5426 "Dakota Gasification Company: A Class I Inventory for the CO2 Injection Pipeline in Mercer County, North Dakota"

Dear Mr. Solie,

We reviewed ND SHPO Ref.: 21-5426 "Dakota Gasification Company: A Class I Inventory for the CO2 Injection Pipeline in Mercer County, North Dakota" and we concur with the Class III Survey boundary recommendation and look forward to seeing results of the survey including an assessment of 32ME220.

Thank you for the opportunity to review this project. If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577, e-mail lsteckler@nd.gov

Sincerely,

for William D. Peterson PhD
State Historic Preservation Officer
(North Dakota)

21-5426

February 12, 2021

Kevin Solie P.E.
Senior Environmental Compliance Administrator
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, ND 58503

Re: Proposed Dakota Carbon Pipeline from DGC to Mercer County in Mercer County

Dear Mr. Solie:

The North Dakota Department of Environmental Quality has reviewed the information concerning the above-referenced project received at the department on February 1, 2021 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. A new facility also may be required to obtain a permit to discharge storm water runoff from industrial activity. Further information on the storm water permits may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Cities or counties 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. Parts of the proposed construction project overly the Antelope Creek surficial aquifer. 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. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the department's Division of Waste Management at (701) 328-5166.

5. 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.

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.

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.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Director
North Dakota Department of Environmental Quality

LDG:csc
Attach.

Construction and Environmental Disturbance Requirements

The following are the minimum requirements of the North Dakota Department of Environmental Quality for projects that involve construction or environmental disturbance in or near waters of the State of North Dakota. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect waters of the state. All projects must be constructed to minimize the loss of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of soil and sediment loss using erosion and sediment controls. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, and land resources must be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction must be managed to minimize impacts to aquatic systems. Follow safe storage and handling procedures to prevent the contamination of water from fuel spills, lubricants, and chemicals. Stream bank and stream bed disturbances must be controlled to minimize slit movement, nutrient upsurges, plant dislocations, and any physical, chemicals, or biological disruption. The use of pesticides or herbicides in or near surface waters is allowed under the department's pesticide application permit with notification to the department.

Fill Material

Any fill material placed below the ordinary high-water mark must be free of topsoil, decomposable materials, and persistent synthetic organic compounds; including, but not limited to, asphalt, tires, treated lumber, and construction debris. The department may require testing of fill materials. All temporary fill must be removed. Debris and solid wastes must be properly disposed or recycled. Impacted areas must be restored to near original condition.

NORTH Dakota | Transportation
Be Legendary.™

February 16, 2021

Kevin L. Solie, P.E.
Senior Environmental Compliance Administrator
Basin Electric Cooperative
1717 East Interstate Avenue
Bismarck ND 58503

CONSTRUCT DAKOTA CARBON PIPELINE, MERCER COUNTY, NORTH DAKOTA

We have reviewed your January 27, 2021, letter.

This project should have no adverse effect on the North Dakota Department of Transportation highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer, Rob Rayhorn at 701-227-6510.

CHAD M. ORN, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/cmo/js
c: Rob Rayhorn, Dickinson District Engineer

"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

February 24, 2021

Kevin L. Solie, P.E.
Senior Environmental Compliance Administrator
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, ND 58503

Dear Mr. Solie:

RE: Proposed Dakota Carbon Pipeline Project

Dakota Gasification Company (DGC) is proposing to construct an approximately 6.7-mile long 14-inch diameter carbon dioxide (CO2) pipeline from DGC's Great Plains Synfuels Plant to six CO2 geologic sequestration well locations in central Mercer County, North Dakota. The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

A primary concern with pipeline projects is the possible disturbance of native prairie associated with construction of the pipeline and access roads. Avoidance of native prairie areas reduces impacts to several grassland species including many of the species of conservation priority. We ask that work within these areas be avoided to the extent possible, and disturbed areas be reclaimed to pre-project conditions.

The National Wetland Inventory indicates various wetlands within the proposed project area. 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.

We do not believe this project will have significant adverse effects on wildlife or wildlife habitat provided these recommendations are implemented where appropriate during project construction.

Sincerely,

Greg Link
Chief
Conservation & Communication Division

js

NORTH Dakota | Water Commission
Be Legendary.™

February 24, 2021

Kevin L. Solie
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, ND 58503

Dear Mr. Solie:

This is in response to your request for a review of the environmental impacts associated with the Dakota Carbon Pipeline project.

The proposed project has been reviewed by State Water Commission staff, and the following comments are provided:

- There are no FEMA regulatory floodplains identified and/or mapped where this proposed project is to take place. No permits relative to the NFIP are required based on the current effective FIRM and State minimum standards.

- The Office of the State Engineer (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, and wetlands (i.e. ponds, sloughs, lakes, or any series thereof), and dikes, levees, and other water control devices, as any alterations, modifications, improvements, or impacts to those may require a drainage permit(s) or a construction permit(s) from the OSE. Specifically, the project route appears to be near several drains permitted under drainage permit numbers 2655, 2682, 2695, 2995, and 4646 (see attached) and a diversion permitted under construction permit number 2089 (see attached). Any modifications to a permitted structure may require a drainage permit(s) or construction permit(s) from the OSE. Please contact the OSE Engineering and Permitting Section at 701-328-4288 if you have any questions.

- 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 § 61-04-02. Please consult with the Water Appropriations Division of the Office of the State Engineer if you have any questions at (701) 328-2754 or appropinfo@nd.gov.

- The State Water Commission 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. State Water Commission 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 State Water Commission hopes to keep all observation wells, but otherwise will ensure the well is properly abandoned.

Thank you for the opportunity to provide review comments. Should you have further questions, please contact me at 701-328-4970 or stevebest@nd.gov.

Sincerely,

Steven Best
Planner III

SB:dm/1570

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504-7565

February 17, 2021

NWO-2021-00303-BIS

Basin Electric Power Cooperative
Attn: Mr. Kevin Solie
1717 East Interstate Avenue
Bismarck, North Dakota 58503-0564

Dear Mr. Solie:

This is in response to your solicitation letter received on February 4, 2021 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments on the proposed Dakota Gasification Company, Dakota Carbon Pipeline. The project is located in Sections 6, 7, and 18, Township 145 North, Range 87 West and Sections 1, 2, 3, 10, 11, 12, 13, 14, 23, 24, 25, and 26, Township 145 North, Range 88 West, Mercer County, North Dakota.

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 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 on page 2 of the fact sheet. If a project involves any one of the seven notification requirements, the project proponent must submit a DA application. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 18 thru 21 of the fact sheet.

In the event your project(s) requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely

reviewed and will require the issuance of a public notice. A Standard or Individual Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend well beyond 120 days.

This correspondence letter does not approve the proposed construction work or does not verify the proposed project complies with the Nationwide Permit(s).

If any of these projects require a Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 6082) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 3319 University Drive, 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.

Due to precautions taken in response to the COVID-19 pandemic, The North Dakota Regulatory office prefers that all submissions are sent electronically to the following email address: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed.

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter of phone at (701) 255-0015.

Sincerely,

Toni R. Erhardt
Senior Project Manager
North Dakota

Enclosure
ENG Form 6082
Fact Sheet NWP 12

U.S. Army Corps of Engineers (USACE)

NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

33 CFR 330. The proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-0003
Expires: 02-28-2022

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority	Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.
Principal Purpose	Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.
Routine Uses	This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.
Disclosure	Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (*see sample drawings and/or instructions*) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
Company Title -	E-mail Address -
E-mail Address -	
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. with AREA CODE	**10. AGENT'S PHONE NOs. with AREA CODE**
a. Residence b. Business c. Fax d. Mobile	a. Residence b. Business c. Fax d. Mobile

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

_____ _____
SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)
Latitude °N Longitude °W

City: State: Zip:

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

State Tax Parcel ID Municipality

Section Township Range

17. DIRECTIONS TO THE SITE.

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE:

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by Proposed Nationwide Permit Activity (*see instructions*)

Acres Linear Feet Cubic Yards Dredged or Discharged

Each 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.

23. List 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 on any related activity (*see instructions*)

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

25. Is Any Portion of the Nationwide Permit Activity Already Complete? ☐ Yes ☐ No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

28. For a proposed NWP 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, identify the Wild and Scenic River or the "study river":

29. If the proposed 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 federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☐ No

If "yes", please provide the date your request was submitted to the Corps District:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that this information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The Pre-Construction Notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a

Department of the Army

Nationwide Permit (NWP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity,including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity 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. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g.,a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20. Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of 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 additional mitigation measures.

Block 21. Purpose of Nationwide Permit Activity. Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity. For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distance crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 21.

Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List 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. For linear projects, list other separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10-Acre of Wetlands When Pre-Construction Notification is Required. Paragraph (c) of NWP general condition 23 requires compensatory mitigation at a minimum one-for-one replacement 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 is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity-specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre, or provide an explanation of why the district engineer should not require wetland compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete? Describe any work that has already been completed for the NWP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River. If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov/

Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408. If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.

Block 30. Other Information Required For Nationwide Permit Pre-Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

* NWP 3, Maintenance –information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
* NWP 31, Maintenance of Existing Flood Control Facilities –a description of the maintenance baseline and the dredged material disposal site.
* NWP 33, Temporary Construction, Access, and Dewatering –a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.
* NWP 44, Mining Activities –if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre-construction notification.
* NWP 45, Repair of Uplands Damaged by Discrete Events –documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
* NWP 48, Commercial Shellfish Aquaculture Activities –(1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).
* NWP 49, Coal Remining Activities –a document describing how the overall mining plan will result in a net increase in aquatic resource functions to the district engineer and receive written authorization prior to commencing the activity.
* NWP 50, Underground Coal Mining Activities –if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre-construction notification.

If more space is needed, attach an extra sheet of paper marked Block 29.

Blocks 31 and 32. For bank stabilization activities, we are collecting information on the use of living shorelines in coastal waters and lakes to inform future NWP rulemaking efforts. If the PCN is for a proposed NWP 13 activity, and it is located in coastal waters or a lake, please check the appropriate box in block 31 to indicate whether you considered the use of a living shoreline to protect your property from erosion. If the PCN is for a proposed NWP 13 activity, and it is located in coastal waters or a lake, please check the appropriate box in block 32 to indicate whether there are contractors in your area that construct living shorelines.

Block 33. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each 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 wetland delineation manual and regional supplement published 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. The 45 day PCN review period will not start until the delineation is submitted or has been completed by the Corps.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings should also be included. Please submit one original, or good quality copy, of all drawings on 8½x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.

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. <u>Safety of Impoundment Structures.</u>

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. <u>Water Quality.</u>

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.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

IN REPLY PLEASE REFER TO:
Proposed Dakota Carbon Pipeline
CPA-0031

February 9, 2021

Kevin Solie
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, North Dakota 58503

Dear Mr. Solie:

Thank you for your letter of January 27, 2020, requesting comments on Dakota Gasification Company's proposed 6.7 mile long carbon dioxide pipeline located in Mercer County, North Dakota. The U.S. Fish and Wildlife Service (FWS) has the following comments.

Section 7 of the Endangered Species Act

Section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*) requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the FWS *if they determine their project and associated actions "may affect" listed species or critical habitat*. If Federal agencies or their non-federal representatives determine their project and associated actions will have "no effect" on listed species, their habitats, or designated critical habitat, consultation is not required. However, if a "no effect" is determined, we recommend that you maintain a written record in support of your conclusion.

Consultations on IPaC

We invite you to use a new tool the FWS has designed to help with the consultation process – the Information for Planning and Consultation (IPaC) database (http://ecos.fws.gov/ipac). The database provides guidance to help you determine what your action area is, whether endangered species may be found within the action area, and if your project and associated actions may affect listed species. Additionally, the Section 7(a)(2) Technical Assistance webpage (https://www.fws.gov/midwest/endangered/section7/s7process/index.html) contains step-by-step guidance for the Section 7(a)(2) consultation process as well as informal consultation letter examples templates for documenting your findings related to threatened and endangered species.

Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act

Additionally, while not all are listed as threatened or endangered, eagles and migratory birds have protections under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty

Act (MBTA). The BGEPA prohibits take which is defined as, "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (50 CFR 22.3). Disturb is defined in regulations as, "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." The MBTA makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds, including eagles. The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs, and nests.

Service Property Interests

As part of the National Wildlife Refuge System, the FWS administers fee title Refuge and Waterfowl Production Areas, as well as wetland and grassland easements, throughout North Dakota. For exact locations of FWS interest lands, please contact the appropriate Wetland Management Districts (WMD) for guidance regarding FWS easements.
Dunn, Hettinger, McLean, Mercer, Sheridan, Ward Counties: Audubon Complex, Todd Frerichs, (701) 442-5474

Conclusion

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, do not fulfill the requirements under the Endangered Species Act, the Bald and Golden Eagle Protection Act, or the Migratory Bird Treaty Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement. Thank you for the opportunity to provide comments early in the planning process. If you have any additional questions or comments, please contact Lauren Toivonen of my staff at (701) 355-8573 or via email at Lauren_Toivonen@fws.gov, or contact me at (701) 355-8512 or Drew_Becker@fws.gov.

Sincerely,

Drew Becker
ND Ecological Services Supervisor

APPENDIX D

WEST BIOLOGICAL REPORT

Dakota Carbon Pipeline
Biological Report

Date: April 14, 2021

Prepared for:
Basin Electric Power Cooperative
1717 E. Interstate Ave.
Bismarck, ND 58503

This report was prepared by:

Western EcoSystems Technology, Inc.
4007 State St., Suite 109
Bismarck, ND 58503

Clayton Derby, Principle Ecologist
Terri Thorn, GIS Specialist
Caleb Arellano, Field Biologist
Alex Brazeal, Field Biologist

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 Introduction

Dakota Gasification Company (DGC) is proposing to construct a carbon dioxide (CO2) pipeline facility from DGC's Great Plains Synfuels Plant to six (6) CO2 geologic sequestration well locations in central Mercer County, North Dakota (Project, Figure 1). The Project consists of a main line that is approximately 2.9 miles in length which originates at DGC and terminates at one of the six sequestration well locations. The mainline will be constructed of 12" diameter steel pipe. The facility also includes five (5) lateral pipelines which will be constructed of 6" diameter steel pipe totaling approximately 3.9 miles in length. Each lateral line serves as a dedicated CO2 supply line to each of the five remaining wells locations. Each line originates at the mainline with four of the laterals extending radially from the end of the mainline and the other lateral is a branch from the mainline. The Project also includes ancillary components such as above ground stations, instrumentation, cathodic protection, and communication systems.

Since the Project would likely require a permit from the North Dakota Public Service Commission (PSC), Western EcoSystems Technology, Inc. (WEST), was retained to conduct baseline biological resource surveys for the proposed site. This Biological Resources Report is intended to support the development of a potential application to the PSC.

2.0 Study Purpose

The proposed Project is a pipeline to six CO2 injection wells that will interconnect with the DGC existing infrastructure. This report outlines the field and desktop survey efforts undertaken to provide biological survey and technical support for BEPC to develop and permit the Project through the PSC.

3.0 Land Cover

For purposes of the desktop analysis a half mile buffer around the Project survey area was considered and is defined here as the Study area. The Study area contains 4,283.6 acres (ac) of land. Based on the desktop analysis, land cover within the Study area is predominately herbaceous (37.9%), shrubs (20.0%), and cultivated croplands (19.3%; Figure 2, Table 1). Developed areas make up 15.9% of the Study area. Slightly more than 65% of the total Study area (2,788.0 ac) is within previously disturbed areas (e.g. areas stripped of topsoil for mining purposes; Figure 3; see reference photographs in Appendix A).

Additionally, we evaluated the proposed Project development corridor that includes a 100-foot buffer either side of the pipeline route plus well drill and site pads (Project corridor) with a total area of 166.8 ac (Figure 4, Table 1). The predominant land cover types were herbaceous (55.5%), cultivated cropland (16.7%), and shrub (12.1%). Developed areas make up 12.7% of the Project corridor area.

Figure 1. Dakota Carbon Pipeline Project location.

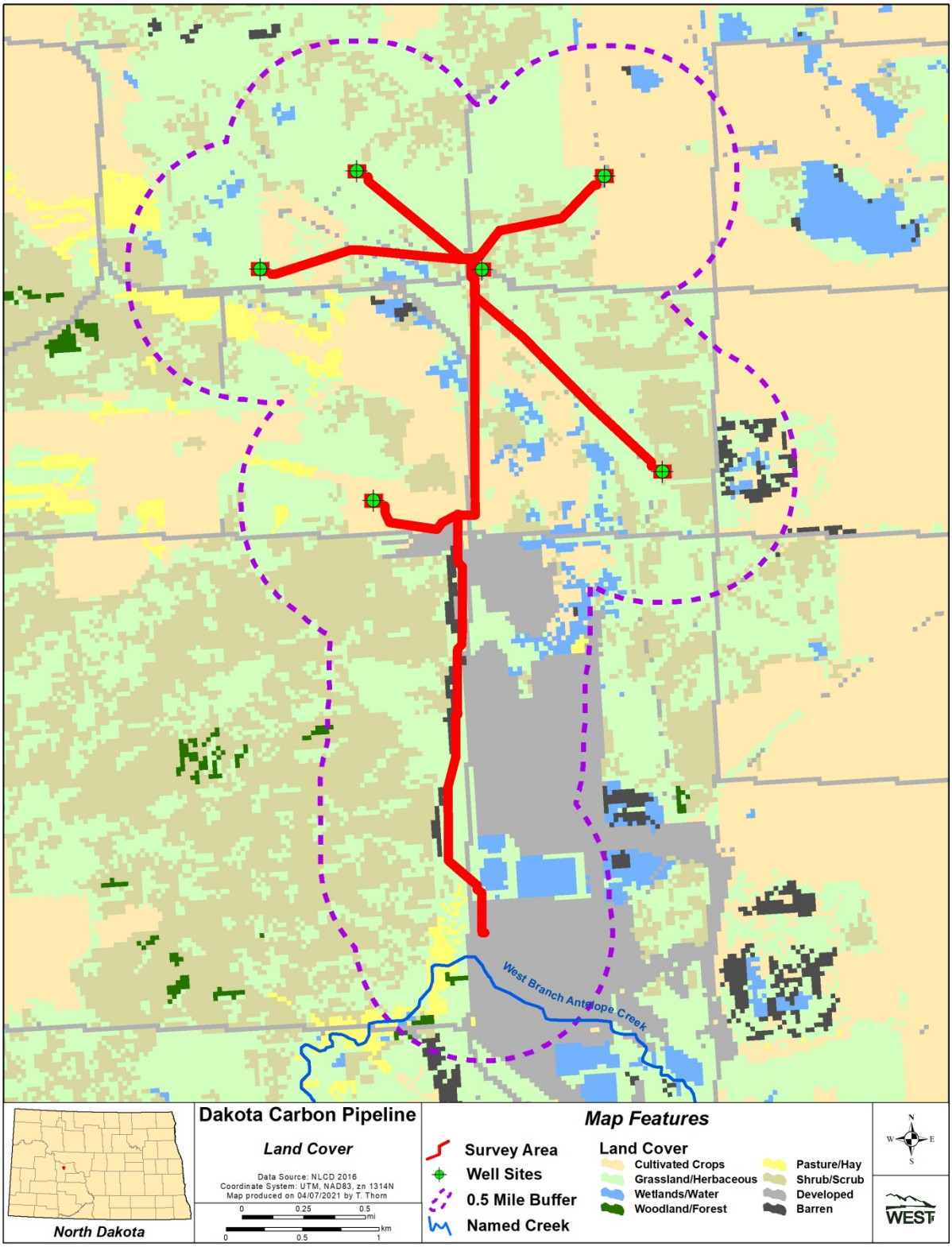


Figure 2: Land cover types within the Project and 0.5-mile boundary Study area used for desktop analysis.

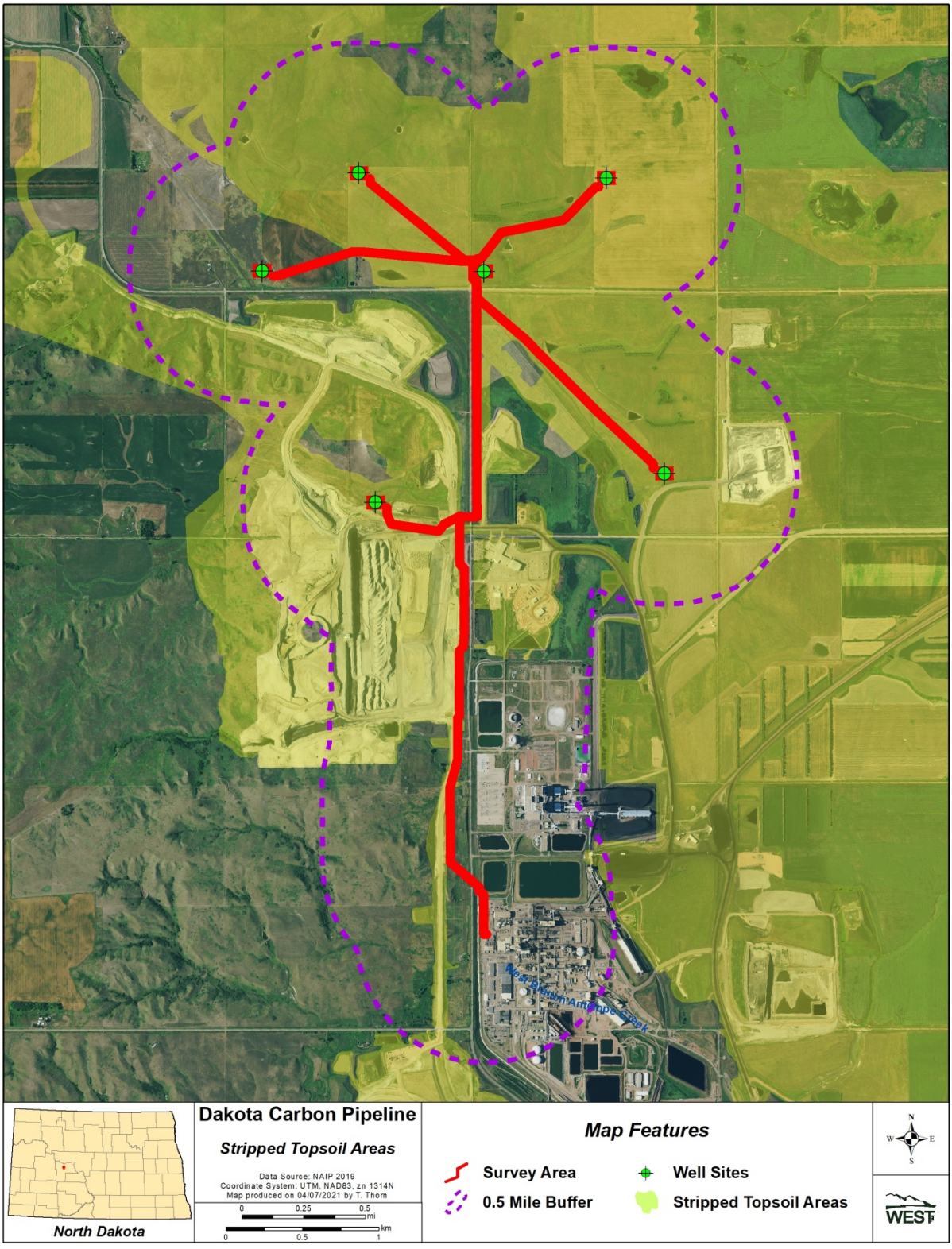


Figure 3: Project with 0.5-mile boundary Study area highlighting areas of stripped topsoil.

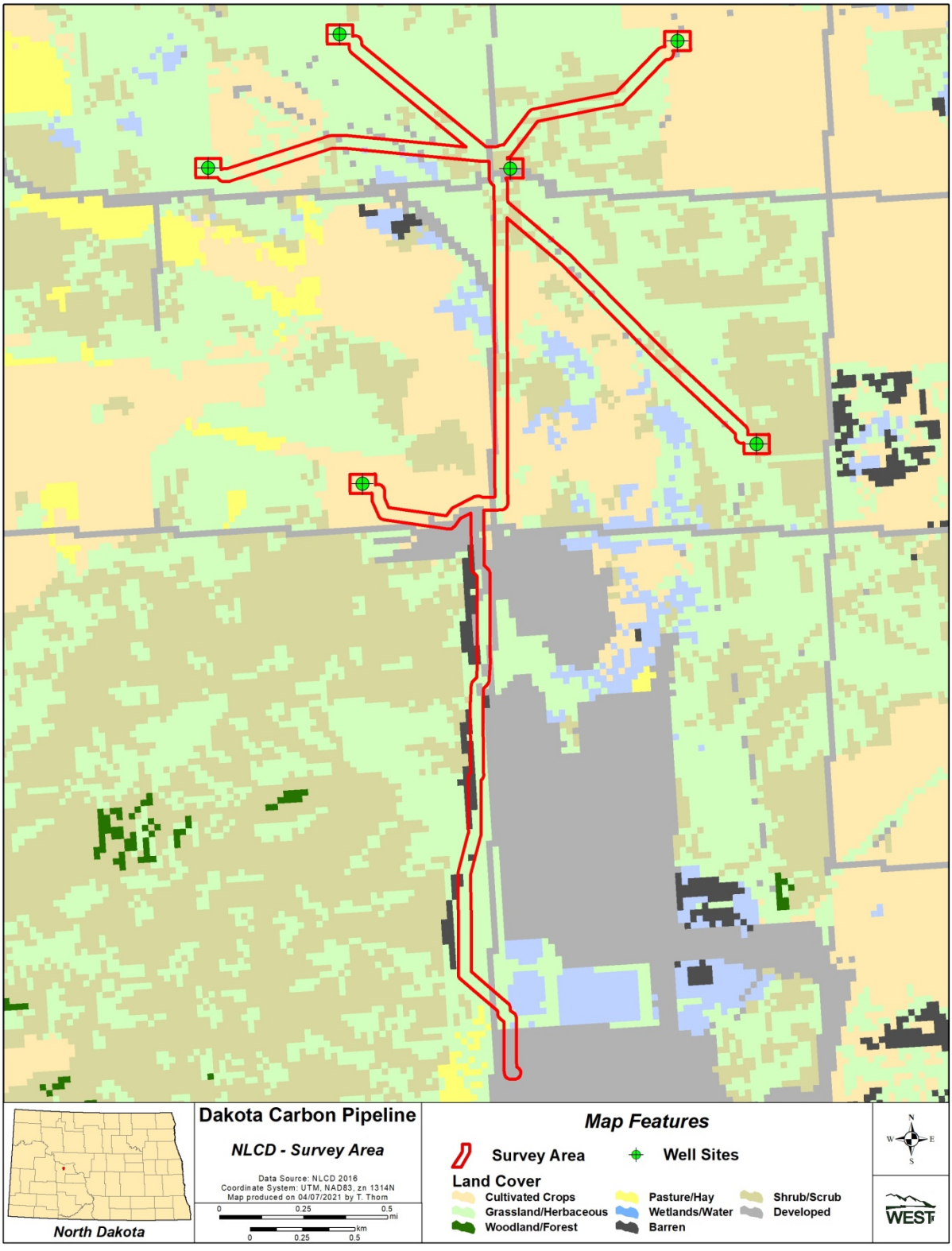


Figure 4: Land cover types within the Dakota Carbon Pipeline Project survey area.

Table 1. Land cover types and total acreage found within 0.5-mile Study area and within Project survey area of proposed Dakota Carbon Pipeline Project.

Land Cover/Use	Acreage within Study Area	Acreage within Project Corridor
Barren Land	50.3	4.7
Cultivated Crops	825.1	27.8
Deciduous Forest	2.7	0.0
Developed, High Intensity	94.1	0.3
Developed, Low Intensity	204.4	8.8
Developed, Medium Intensity	163.1	1.8
Developed, Open Space	218.7	10.1
Emergent Herbaceous Wetlands	42.7	0.00
Evergreen Forest	1.6	0.00
Hay/Pasture	97.6	0.00
Herbaceous	1,622.6	92.5
Open Water	68.9	0.4
Shrub/Scrub	856.8	20.2
Woody Wetlands	35.0	0.00
Total[1]	**4,283.6**	**166.8**

[1.] Totals may not add up precisely due to rounding of numbers

4.0 Species of Concern Review

Information from the PCS requirements outlined in Century Code language regarding avoidance and exclusion areas (69-06-08-02) was reviewed. The specific Century Code language states:

> *Exclusion areas. The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.*
>
> *f. Areas critical to the life stages of threatened or endangered animal or plant species.*
>
> *g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.*

To help inform compliance with the exclusion areas provision, a desktop review and analysis of threatened and endangered species, as identified through of the USFWS Information for Planning and Consultation (IPaC) online system (USFWS 2020a) as well as state species of concern and likelihood of occurrence within the Study area was conducted (Table 1). The review was done using the most recent aerial photographs to identify current vegetation types (e.g., grassland, cropland; Figure 2). Historic aerial photographs and other existing data (e.g., land use/land cover datasets*) were reviewed to confirm that the area was previously impacted through surface coal mining activities (i.e., reclaimed coal mine; Figure 3). The desktop review was augmented by a field survey to verify landscape conditions and any potential habitat for the species of concern. A second visit is planned during early growing season.

Below are short species accounts for federally listed species, bald and golden eagles, and Level I State Species of Conservation Priority that may occur within the county.

4.1 Whooping Crane

Whooping cranes (*Grus americana*) are currently listed as endangered under the Endangered Species Act (32 FR 4001, 1967 March 11) except where nonessential experimental populations exist (66 FR 33903-33917, 2001 June 26; 62 FR 38932-38939, 1997 July 21; and 58 FR 5647-5658, 1993 January 22). In the US, the whooping crane was listed as threatened with extinction in 1967 and endangered in 1970 – both listings were "grandfathered" into the Endangered Species Act of 1973 (ESA 1973). The 2019-2020 winter population within the primary wintering grounds was estimated to be 506 individuals (95% CI = 342.6–678.0; CV = 0.168) with an additional 29 individuals outside of the primary wintering grounds (USFWS 2020b). Whooping cranes typically migrate between their breeding grounds in Wood Buffalo National Park, Canada and wintering areas in Aransas National Wildlife Refuge, Texas twice a year. The bulk of the birds pass through North Dakota on each trip. There is no critical habitat designated for whooping cranes in North Dakota. While migrating through North Dakota, whooping cranes will use a variety of habitats including shallow, open wetlands, cropland, and to a lesser extent, open, grazed pasture land.

Limited wetlands exist within the Study area (Figure 2; Figure 5). The cultivated agricultural fields in the area could serve as potential foraging habitat if whooping cranes are roosting nearby. However, given the previously impacted nature of the Study area and ongoing mining activities and industrial activities associated with DGC and the adjacent Antelope Valley Station power plant, whooping cranes are highly unlikely to use the Study area and no impacts to whooping cranes are anticipated from the Project.

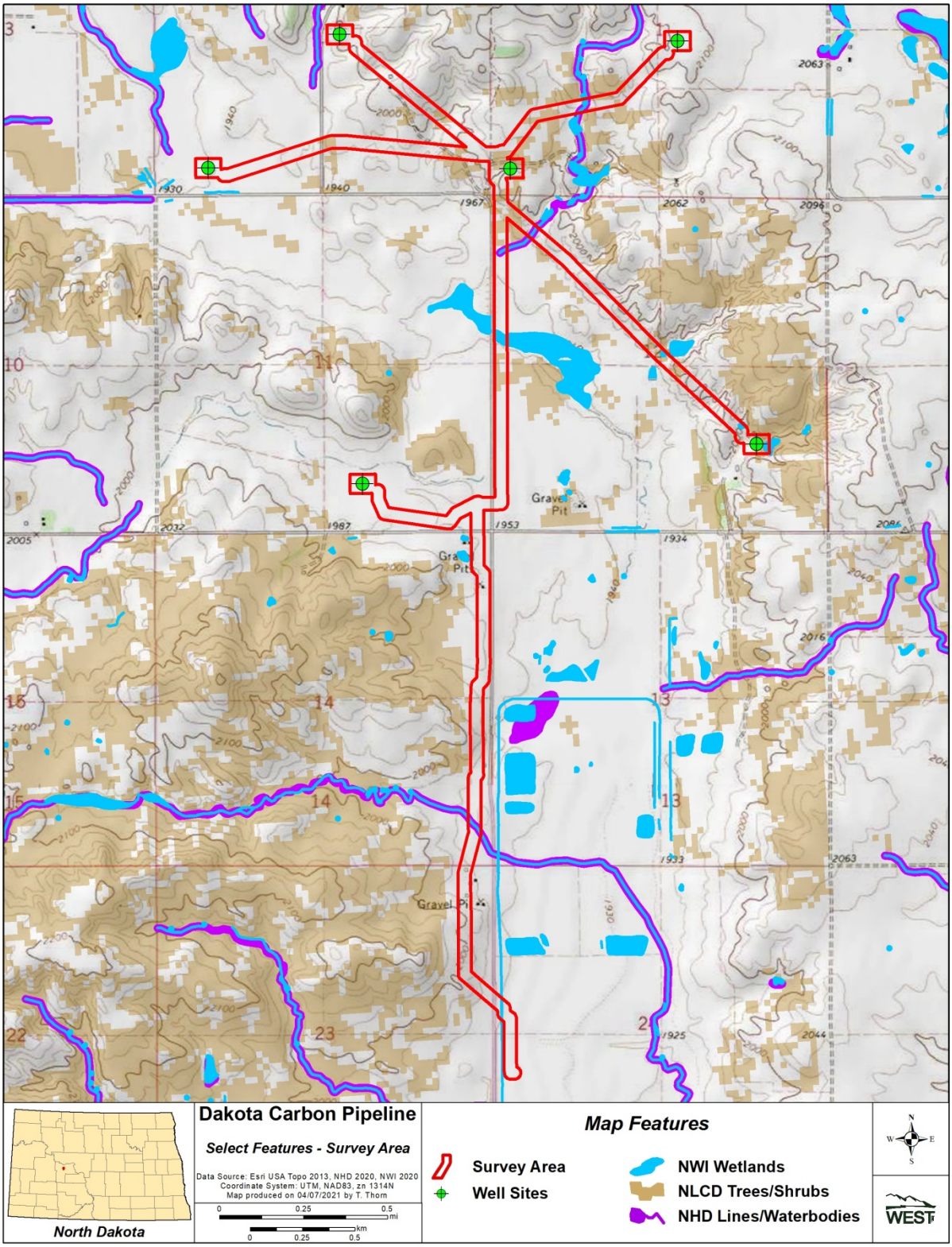


Figure 5. Water and tree or shrub features within the Dakota Carbon Pipeline Project survey area.

4.2 Piping Plover

The US Northern Great Plains population (Montana, North Dakota, South Dakota, Minnesota, Iowa, and Nebraska) of piping plovers (*Charadrius melodus*) was listed as threatened in 1986 (USFWS 2020d). The US portion of this population was estimated at 682 pairs in 1987 with about one half of those breeding in North Dakota (USFWS 1988a). In 2006, this same area had a population estimate of 1,213 pairs and again, a little over half (646 pairs) where recorded in North Dakota (Elliott-Smith et al. 2009). The total number in this population (including Canada) was recently estimated to be 1,398 breeding pairs (USFWS 2020d). On September 11, 2002, the USFWS designated critical habitat for the breeding portion of the Northern Great Plains piping plover population (50 Code of Federal Regulations [CFR] Part 17; 2002). There are 11 different critical habitat units designated in North Dakota (USFWS 2013b). The nearest being along Lake Sakakawea, approximately 4 miles north of the Project.

In North Dakota, piping plovers utilize barren shores of inland alkali lakes as well as barren sand bars and shorelines of the Missouri River and its' associated reservoirs (USFWS 2012a, 2013b). Approximately 75% of the breeding population utilizes inland lakes while the remaining population nests in and along the Missouri River system (USFWS 2012a, 2013b). Feeding areas are usually within the wetland or along the shore or sandbar the nest is located on (USFWS 1988b).

No habitat for piping plovers exist within the Project corridor and no impacts are anticipated to the species from Project development.

4.3 Rufa Red Knot

Primary threats to the continued existence of this species include climate change as it relates to sea rise, weather patterns, and prey abundance as well as coastal development and shoreline stabilization. In North Dakota, the main threat would be loss of migratory stopover wetlands.

The rufa red knot (*Calidris canutus rufa*) is a long-distance migrant which breeds in the Canadian Artic and winters as far south as coastal Argentina. They can also be found wintering along the northwest Gulf of Mexico, coastal areas from North Carolina to Florida, the Caribbean, and coastal northern South America. Red knots occur mainly along ocean coasts during migration but have been documented in most U.S. states. Little if any information is available on these non-coastal migratory stopover habitats (USFWS 2013c). Based on energy requirements of long-distance migratory bird species, likely red knot stopover areas often contain abundant food resources. Nonbreeding red knots (probably one year olds) remain south of the breeding grounds and may be observed in small numbers in the Northern Plains (possibly North Dakota).

No habitat for red knots exist within the Project corridor and no impacts are anticipated to the species from Project development.

4.4 Northern Long-eared Bat

The northern long-eared bat (*Myotis septentrionalis*) was listed as threatened in April 2015 (USFWS 2020e). The northern long-eared bat ranges from the southeast corner of the Northwest Territory, east across each Canadian province, and covers 38 states in the central and eastern part of the United States including all of North Dakota. This medium-sized bat (3 to 3.7 inch long) is insectivorous and utilizes different roost sites at different seasons. In winter, the northern long-eared bat typically hibernates in caves and mines. Preferred hibernation sites have large passages and entrances, constant temperatures, and high humidity with no air currents. It is common for this species to overwinter in sites with other *Myotis* species. There are no known northern long-eared bat hibernacula in North Dakota. During the summer months, this species relies less on caves and more on old growth and late successional forests for roosts and reproduction. During the summer, they roost under the bark of dead and dying trees. Old and mature forests provide habitat (decaying trees, loose bark, tree snags, and stumps) for roosting, feeding, and maternity colonies of northern long-eared bats. In addition, the northern long-eared bat is also known to roost in buildings (USFWS 2020e). No critical habitat for the species has been identified.

Primary threats to the continued existence of the northern long-eared bat include commercialization of caves leading to an increase in disturbance, pesticides and other contaminants, the loss or degradation of hibernacula, destruction of summer habitat such as the loss of forest cover and degradation of forested habitats, and the impacts of disease (rabies, white-nose syndrome, etc.). Of particular recent concern is the impact of white nose syndrome (WNS) which has had pronounced effects on some bat population (USFWS 2020e).

Construction and operation of the Project will not impact caves, mature trees, or old buildings. No impacts to northern long-eared bats are anticipated from the Project.

4.5 Pallid Sturgeon

The pallid sturgeon (*Scaphirhynchus albus*) was listed as endangered on September 6, 1990 (USFWS 1993). Historically the pallid sturgeon was considered uncommon and historic population estimates on the upper Missouri River are unknown (USFWS 1993). In 2004, there was estimated to be 158 wild adult pallid sturgeon in the Fork Peck and Yellowstone reaches of its range (Klungle and Baxter 2005). Stocking efforts are ongoing through various reaches of the Missouri River, including above Lake Sakakawea.

Adult pallid sturgeon historically utilized the bottom of large, turbid, fast flowing rivers. However, their life-cycle requires a wide array of aquatic habitats from floodplain backwaters to main river channels (USFWS 1993). Pallid sturgeons are long-lived species (up to 40 years). It is estimated that the specie reaches sexual maturity at seven to nine years for males and 15 to 20 years for females (USFWS 1993). Females may spawn only every three to 10 years (USFWS 1993). Spawning is thought to occur between June and August and historically in the upper reaches of the range and coincided with an increase in river flow from mountain runoff. Other environmental factors may influence spawning behavior and timing (USFWS 1993). Feeding ecology of pallid sturgeon is not well understood. It is thought that the diet of young fish is

mainly aquatic invertebrates with an increase in small fish consumption as pallid sturgeon age (USFWS 1993). Overall, the life history of pallid sturgeon is not well understood.

While Mercer County borders Lake Sakakawea, there is no habitat for the species within the Study area and no impacts are anticipated to pallid sturgeon.

4.6 Bald and Golden Eagles

Both bald and golden eagles are protected by the Migratory Bird Treaty Act (1918) and the Bald and Golden Eagle Protection Act (1940). Bald eagles prefer to use mature trees near permanent bodies of water with an abundant prey source for their nesting, roosting, and foraging activities (Dyke et al. 2015). Golden eagles can be found in association with open grasslands, mature tree stands, and large bodies of water close to prairie dog colonies or other abundant prey source (Dyke et al. 2015). They typically nest on cliffs or mature trees. Lake Sakakawea, approximately 4 miles north of the northern edge of the Project survey corridor, provides key habitat for both bald and golden eagles.

Based on review of aerial and topographic maps and general site reconnaissance, no mature trees or large water bodies were located within the Survey area. While it is possible that both bald and golden eagles could fly through the Project corridor, given that the Project corridor and Study area have a high proportion of disturbance areas with ongoing nearby operations, impacts to either eagle species are unlikely.

4.7 Dakota Skipper

The Dakota skipper requires high quality, unbroken prairie habitat containing areas dominated by warm season native grasses such as bluestem grass species and flowering forbs for nectar sources such as prairie cone flower (USFWS 2020f, NDGFD 2019). Broken grasslands or native grasslands with high levels of disturbance (e.g. over grazing) are typically unsuitable for Dakota skipper. Because this species does not move great distances, isolated populations are vulnerable to habitat fragmentation.

Dakota skipper was not listed in Mercer County until recently (USFWS 2021b) and no critical habitat for the species occurs within Mercer County. Grasslands within the Study area are predominately replanted coal mine land or is otherwise broken and other habitats are disturbed due to industrial use. Impacts to Dakota skipper from the Project are unlikely for these reasons.

4.8 State Unique or Rare Species

The report evaluates North Dakota Game and Fish Department (NDGFD; Dyke et al. 2015) Level 1 Species of Conservation Priority (see Table 2) to address "*Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged*". According to the NDGFD website, "*these Level 1 species are species which are in decline and receive little or no monetary support or conservation efforts. North Dakota Game and Fish Department has a clear obligation to use State Wildlife Grant (SWG) funding to implement conservation actions that directly benefit these species. Level I species are those having a:*

- *High level of conservation priority because of declining status either here or across their range, or*
- *High rate of occurrence in North Dakota constituting the core of the species breeding range (i.e., responsibility species) but are at-risk range wide."*
- *Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged"*

Most Level 1 species are unlikely to occur within the Study area or Project corridor (Table 2). The majority of the Study area is reclaimed coal mine land, developed, or cultivated cropland, and the areas adjacent to the Project are highly industrialized and have ongoing operations. Habitat for animal or plant species that are unique/rare to the state will not be irreversibly damaged.

Table 2. Evaluated species of concern for the Dakota Carbon Pipeline Project		
Evaluated Species	**Habitat Requirements**	**Potential Occurrence at the Project[1]**
Birds		
American bittern *Botaurus lentiginosus*	Wetlands with tall emergent vegetation adjacent to grasslands	Unlikely
Baird's sparrow *Ammodramus bairdii*	Large tracts of un-grazed or lightly grazed tall- and mixed-grass prairie	Unlikely
Bald eagle *Haliaeetus leucoephalus*	Permanent water bodies with mature tree stands.	Possible
Black tern *Chlidonias niger*	Shallow wetland complexes with emergent vegetation and open water adjacent to grasslands	Unlikely
Black-billed cuckoo *Coccyzus erythropthalmus*	Brushy margins or openings in woodlands and thickets, riparian areas, shelterbelts, and other wooded areas	Unlikely
Chestnut-collared longspur *Calcarius ornatus*	Mixed- and short-grass prairie with few shrubs and low litter accumulation	Possible
Ferruginous hawk *Buteo regalis*	Large tracts of open native grasslands and pastures	Possible
Franklin's gull *Leucophaeus pipixcan*	Large wetlands with cattail, bulrush, and other emergent vegetation, can forage in agricultural fields	Unlikely
Golden eagle *Aquila chrysaetos*	Open grasslands, large bodies of water and prairie dog colonies.	Possible
Grasshopper sparrow *Ammodramus savannarum*	Large tracts of tall- and mixed-grass prairie, Conservation Reserve Program lands, or pasture lands with low litter depth and low density of shrubs	Unlikely
Greater sage-grouse *Centrocercus urophasianus*	Expansive areas dominated by big sagebrush (*Artemisia tridentata*)	Unlikely
Horned grebe *Podiceps auritus*	Ponds/wetlands with emergent vegetation and large areas of open water	Unlikely
Lark bunting *Calamospiza melanocorys*	Grasslands with a shrub component, such as sagebrush, weedy cropland, Conservation Reserve Program lands, hayland, or pastures	Unlikely
Long-billed curlew *Numenius americanus*	Rolling mixed-or short-grass prairies as well as level, fallow grounds; often near wetlands	Unlikely
Least tern-Interior *Sterna antillarum*	Sparsely vegetated sandbars or shorelines	Unlikely
Marbled godwit *Limosa fedoa*	Forage in a variety of types of wetlands and nests in grazed native prairie	Unlikely
Nelson's sparrow *Ammodramus neslsoni*	Wetlands with dense emergent vegetation, fens, wet meadows, lake margins, Conservation Reserve Program lands, or native prairies	Unlikely
Piping plover[2,] *Charadrius melodus*	River/reservoir systems and inland wetlands containing barren gravel/sand/alkali areas	Unlikely
Rufa red knot[2] *Calidris canutus rufa*	Little information on inland stopover habitat; possibly shallow wetlands with abundant invertebrates, including snails and small crustaceans	Unlikely
Red-headed woodpecker *Melanerpes erythrocephalus*	Mature deciduous trees along river bottoms, shelterbelts, and wooded areas	Unlikely

Sprague's pipit *Anthus spragueii*	Extensive tracts of mixed-grass prairies, un-grazed or lightly-grazed with few shrubs	Unlikely
Swainson's hawk *Buteo swainsoni*	Mix of grasslands and croplands with scattered trees and thickets	Possible
Whooping crane[2] *Grus americana*	Suitable stopover habitat includes wetlands with un-obstructed viewsheds and gentle sloping banks, harvested crop lands, and grazed pastures	Unlikely
Wilson's phalarope *Phalaropus tricolor*	Shallow, open water wetlands with adjacent grasslands for nesting	Unlikely
Yellow rail *Coturnicops noveboracensis*	Fens or wet meadows with shallow water and emergent vegetation	Unlikely
Mammals		
Big brown bat *Eptesicus fuscus*	Wide range of habitats; insect availability is limiting factor	Possible
Black-tailed prairie dog *Cynomys ludovicianus*	Level to gently rolling dry areas with short vegetation	Unlikely
Little brown bat *Myotis lucifugus*	Wide range of habitats; often use human-made structures for roosting, maternity colonies, and hibernating, but also use caves and hollow trees. Foraging occurs near water where flying insects are abundant	Possible
Northern long-eared bat[3] *Myotis septentrionalis*	Generally associated with old-growth forests and intact forest habitat for foraging, roosting, and breeding. Hibernation occurs primarily in caves, and mines	Unlikely
Townsend's big-eared bat *Corynorhinus townsendii*	Regularly found in forests and riparian areas in the summer months; maternity and hibernation colonies typically are in caves or mines	Unlikely
Amphibians and Reptiles		
Canadian toad *Anaxyrus hemiophrys*	Commonly found in permanent water, on margins of lakes, ponds, and a variety of wetlands	Unlikely
Plains hog-nosed snake *Heterodon nasicus*	Dry, sandy, or gravelly areas in grasslands and open sand prairies	Unlikely
Plains spadefoot *Spea bombifrons*	Dry, open grasslands with sandy or loose soils	Unlikely
Smooth green snake *Opheodrys vernalis*	Grazed or un-grazed grasslands, particularly upland hills	Unlikely
Fish		
Blue sucker *Cycleptus elongatus*	Deep areas of medium to large swift rivers with sand or gravel bottoms	Unlikely
Northern pearl dace *Margariscus margarita*	Cool, clear headwater streams or pools with slow to moderate current and sand or gravel bottoms	Unlikely
Pallid sturgeon *Scaphirhynchus albus*	Only found in the Missouri River and parts of the Yellowstone River. Usually in fast current areas with a firm sand or gravel bottom	Unlikely
Sicklefin chub *Macrhybopsis meeki*	Large, turbid rivers with sand or gravel bottoms	Unlikely
Sturgeon chub *Macrhybopsis gelida*	Main channels of large, turbid rivers with sand or gravel bottoms	Unlikely
Insects		
Dakota skipper *Hesperia dacotae*	Unbroken tracts of tall and mixed grass prairie. Bluestem is indicative of the habitat.	Unlikely

Monarch butterfly *Danaus plexippus*	Areas with high nectar sources (native and domestic) and milkweed for caterpillar stage	Possible
Regal fritillary *Speyeria idalia*	Native tall-grass prairie with extensive stands of violet (*Viola* spp.)	Unlikely
Freshwater Mussels		
Creek heelsplitter *Lasmigona compressa*	Headwaters of small- and medium-sized streams	Unlikely
Pink papershell *Potamilus ohiensis*	Mud, sand, or gravel bottom of medium to large rivers	Unlikely
Threeridge *Potamilus ohiensis*	Mud, sand, or gravel bottom of large river systems	Unlikely

Sources: Dyke et al 2015; NatureServe 2017; USFWS 2020a

[1] Likely: Readily occurs in County and potential habitat within the Project; Possible: Potential to occur or occurs in low abundance in County and potential habitat within the Project; Unlikely: Distribution range does not overlap County or potential habitat not present with the Project.

[2] Federally endangered

[3] Federally threatened

5.0 General Wildlife

Because the majority of the Study area and Project corridor have has been disturbed through mining and/or cropland and development, the potential for extensive wildlife use is limited. Avian wildlife is likely restricted to species common to agricultural and reclaimed landscapes in the central portion of North Dakota such as red-winged blackbird (*Agelaius phoeniceus*), ring-necked pheasant (*Phasianus colchicus*), western meadowlark (*Sturnella neglecta*), horned lark *(Eremophila alpestris*), and possibly various waterfowl species using wetlands for roosting and grain fields for foraging. Raptors such as red-tailed hawks (*Buteo jamaicensis*) and Swainson's hawks (*Buteo swainsoni*) may forage in the area.

Similar to avian species, extensive use by mammalian wildlife is also likely limited. Small mammals such as various species of voles and mice may occupy the landscape. Medium-sized mammals such as badger (*Taxidea taxus*), coyote (*Canis latrans*), and striped skunk (*Mephitis mephitis*) may also forage within, traverse through, or burrow in the Project corridor periodically. Moose (*Alces alces*) were seen within the Study area but not along the Project corridor during the first site visit; other potential large mammals could utilize the project area, such as white-tailed deer (*Odocoileus virginianus*) and pronghorn (*Antilocapra americana*).

Significant impacts on general wildlife are not anticipated from the Project.

6.0 Wetlands and Waterbodies

A desktop review of wetlands and waterbodies was conducted utilizing recent aerial photographs, National Wetland Inventory (NWI) spatial data, and other available sources to map and evaluate potential features within the project. The desktop effort focused on evaluating wetland locations, types, and any potential connections to other wetlands or waterbodies, especially any navigable waters.

The desktop effort identified NWI wetlands and National Hydrography Dataset water lines within the Project's survey corridor (Figure 5). Mapped wetland and waterbody locations should be considered during Project development to avoid impacts. A site visit is planned during the early growing season in 2021 to verify the presence of wetland and waterbodies along the Project corridor.

7.0 Tree and Shrub Inventory

The desktop effort identified tree and shrub stands within the survey corridor (Figure 5). A site visit is planned during early growing season to assess species composition and abundance. A post-construction survey will be required to determine actual impacts and mitigation needs.

8.0 Literature Cited

Dyke, S.R., S.K. Johnson, and P.T. Isakson. 2015. North Dakota State Wildlife Action Plan. North Dakota Game and Fish Department, Bismarck, ND.

Endangered Species Act (ESA). 1973. 16 United States Code (USC) § 1531-1544, Public Law (PL) 93-205, December 28, 1973, as amended, PL 100-478 [16 USC 1531 et seq.]; 50 Code of Federal Regulations (CFR) 402.

Lott, C.A. and R.L. Wiley. 2012. Effects of Dam Operations on Least Tern Nesting Habitat and Reproductive Success Below Keystone Dam on the Arkansas River. ERDC/EL TR-11-xx. US Army Corps of Engineers (USACE), Engineer Research and Development Center, Vicksburg, Massachusetts.

North Dakota Game and Fish Department (NDGFD). 2019. Dakota Skipper. NDGFD, Bismarck, North Dakota. Accessed April 2021. Information online: https://gf.nd.gov/wildlife/id/insects/dakota-skipper

U.S. Fish and Wildlife Service (USFWS). 2012a. Species Profile: Piping Plover (*Charadrius melodus*). USFWS Envionmental Conservation Online System (ECOS). ECOS available at: http://ecos.fws.gov/ecos/indexPublic.do; Piping plover profile available online at: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B079

US Fish and Wildlife Service (USFWS). 1993. Pallid Stugeon Recovery Plan. Prepared by the Pallid Sturgeon Recovey Team, USFWS, Bismarck, North Dakota, and Denver, Colorado. November 7, 1993.

US Fish and Wildlife Service (USFWS). 1990. Recovery Plan for the Interior Population of the Least Tern (*Sterna antillarum*). Prepared by the USFWS Grand Island, Nebraska, and Twin Cities, Minnesota. September 1990. Available online at: http://ecos.fws.gov/docs/recovery_plan/900919a.pdf

US Fish and Wildlife Service (USFWS). 1988a. Recovery Plan for the Great Lakes and Northern Great Plains Piping Plover. Prepared by the Great Lakes/Northern Great Plains Piping Plover Recovery Team. Available online at: http://ecos.fws.gov/docs/recovery_plan/880512.pdf

U.S. Fish and Wildlife Service (USFWS). 2013a. Least Tern (*Sterna antillarum*). North Dakota Field Office, Mountain-Prairie Region, USFWS. Updated February 19, 2013. Available online at: http://www.fws.gov/northdakotafieldoffice/endspecies/species/least_tern.htm

U.S. Fish and Wildlife Service (USFWS). 2013b. Final Designation of Critical Habitat for Breeding Piping Plovers in North Dakota. North Dakota Field Office, Mountain-Prairie Region, USFWS. Updated February 19, 2013. Unit information available online at: http://www.fws.gov/northdakotafieldoffice/GIS/ppcrithab/ND/ndcrithab.htm

U.S. Fish and Wildlife Service (USFWS). 2013c. Service Proposes to List Red Knot as a Threatened Species Under the Endangered Species Act. Available at http://www.fws.gov/midwest/news/684.html.

U.S. Fish and Wildlife Service [USFWS]. 2020a. Information for Planning and Consultation. Available: https://ecos.fws.gov/ipac/. Accessed February 15, 2021 and April 8, 2021.

U.S. Fish and Wildlife Service [USFWS]. 2021b. Information for Planning and Consultation. Available: https://ecos.fws.gov/ipac/. Accessed April 7, 2021

U.S. Fish and Wildlife Service [USFWS]. 2020b. Whooping Crane Survey Results: Winter 2019-2020. Available: https://www.fws.gov/nwrs/threecolumn.aspx?id=6442464082

U.S. Fish and Wildlife Service [USFWS]. 2020c. Least Tern (Interior Population) Sterna antillarum Fact Sheet. Available: https://www.fws.gov/midwest/endangered/birds/leasttern/IntLeastTernFactSheet.html#:~:text=How%20many%20interior%20least%20terns,currently%20number%20approximately%2018%2C000%20birds.

U.S. Fish and Wildlife Service [USFWS]. 2020d. All About Piping Plovers. Available: https://www.fws.gov/plover/facts.html

U.S. Fish and Wildlife Service [USFWS]. 2020e. Northern Long-Eared Bat (Myotis septentrionalis) Fact Sheet. Available: https://www.fws.gov/Midwest/endangered/mammals/nleb/index.html#:~:text=The%20northern%20long%2Deared%20bat,Act%20on%20April%202%2C%202015.

US Fish and Wildlife Service (USFWS). 2020f. Dakota Skipper (*Hesperia Dacotae*). USFWS Midwest Region Endangered Species, Bloomington, Minnesota. Updated January 23, 2020. Accessed April 2021. Available online: https://www.fws.gov/midwest/endangered/insects/dask/index.html

Appendix A. Representative Site Photographs for Dakota Carbon Pipeline

Appendix A1. Representative land cover of the Dakota Carbon Pipeline Project Area.

Appendix A2. Representative land cover of the Dakota Carbon Pipeline Project Area.

Appendix A3. Representative cropland of the Dakota Carbon Pipeline Project Area.

Appendix A4. Ongoing activity nearby the Dakota Carbon Pipeline Project Area.

APPENDIX E

METCALF CULTURAL RESOURCES SUMMARY

INTRODUCTION

Dakota Gasification Company (DGC), a wholly owned subsidiary of Basin Electric Power Cooperative (BEPC), intends to construct a carbon dioxide (CO_2) pipeline in Mercer County, North Dakota. BEPC requested that Metcalf Archaeological Consultants, Inc. (Metcalf) conduct a Class III cultural resource inventory for the proposed project. The objective of the inventory was to locate any cultural resources located within the project area, to determine whether those resources qualify for inclusion on the National Register of Historic Places (NRHP), and assess the effect that the project may have on those cultural resources that qualify for the NRHP. Fieldwork was conducted by Principal Investigator William Bluemle on April 7, 2021. The results are discussed in one forthcoming report (Meens 2021).

THE UNDERTAKING

DGC intends to construct a CO_2 pipeline facility from DGC's Great Plains Synfuels Plant to six CO_2 geologic sequestration well locations in central Mercer County, North Dakota. The facility consists of a main line measuring approximately 2.9 miles in length, which originates at DGC and terminates at one of the six sequestration well locations. The mainline will be constructed of 12" diameter steel pipe. The facility also includes five lateral pipelines which will be constructed of 6" diameter steel pipe totaling approximately 3.9 miles in length. Each lateral line serves as a dedicated CO_2 supply line to each of the five remaining well locations. Each line originates at the mainline with four of the laterals extending radially from the end of the mainline. The facility also includes ancillary components such as above ground stations, instrumentation, cathodic protection, and communication systems. A yet-to-be formed subsidiary of DGC would own the pipeline; DGC would be responsible for pipeline operation and maintenance. The purpose of the Dakota Carbon Pipeline (Project) is to deliver CO_2 to a third-party who would be responsible for geologic sequestration. The third-party would also be responsible for other permits and approvals, including compliance with the North Dakota State Industrial Commission regulations relating to injection and geologic storage of CO_2.

The pipeline will be buried at a minimum depth of four feet within a 50-foot right-of-way (defined as the Area of Potential Effects, or APE). The Project will include ancillary facilities such as pig launching and receiving stations, cathodic protection and communication systems, buildings, fencing and miscellaneous minor structures. Construction of the proposed pipeline will commence in late summer or early fall of 2021 and would be in service during the first or second quarter of 2022.

The project area is defined as the location of the proposed pipeline plus a half mile buffer. For the purposes of the Class III survey, the project corridor will measure 200 feet wide. The project area is located in Sections 2, 11, 12, 14, 23, and 24 of Township 145 North, Range 88 West in Mercer County, North Dakota (Map 1).

METHODS

Requirements for a Class III cultural resources inventory include a Class I literature review, Class III field survey and a Class III report. Prior to mobilization, Metcalf field personnel reviewed the Class I literature review and utilized Project shapefiles to locate any previously recorded sites, site leads, or points of interest likely to be encountered within the Project area.

The site files search revealed that 319 cultural resources are recorded in the search area. These resources consist of five multicomponent resources, 55 architectural resources, 42 historic resources, 158 archaeological resources, 58 archaeological isolated finds, and one archaeological site lead. Thirty-eight sites have been recommended as *eligible* or are *listed* on the National Register of Historic Places. Three cultural resources overlap with the project corridor: 32ME198, 32ME220, and 32ME733. Sites 32ME198 and 32ME733 are recommended *not eligible*. Precontact site 32ME220 was recorded in 1977 and last updated in 1980. It contains seven stone circles and an artifact scatter. This resource is recommended *eligible*. It was mitigated by Ethnoscience in 1989 (Deaver 1990).

FIELD METHODS

The inventory conformed to *North Dakota's Guidelines for Cultural Resource Inventories* (SHSND 2020). The inventory employed a pedestrian transect methodology with transects spaced no more than 15 meters apart. This methodology was used to inventory the entire 200-foot-wide project corridor that was not known to have been previously mined (see maps).

During the course of the inventory, Metcalf used handheld GPS units to map APE boundaries, took representative digital photographs, and maintained detailed field notes. IF a cultural resource would be encountered, Metcalf photographed the resource(s), recorded measurements, took detailed notes, completed a North Dakota Cultural Resources Survey (NDCRS) form, created a field sketch map, and recorded information via a handheld GPS unit.

RESULTS

A large portion of the project corridor was previously mined and reclaimed, destroying all potential for cultural resources. All portions of the project corridor that appeared to possibly contain intact Holocene deposits were subjected to pedestrian inventory techniques. Portions of the corridor where questions remained regarding the extent of ground disturbance were inventoried to a Class III level. There were, therefore, areas which had been previously disturbed but were nevertheless surveyed for this project in order to make sure all intact portions of the project corridor were accounted for. In the areas where only a portion of the 200-foot-wide project corridor was intact (majority of the project), vegetation consisted of 15% cultivated fields with small grain residue providing 60-80% ground surface visibility, along with 85% fallow and introduced vegetation associated with the on-going nearby construction activities. No new cultural resources were encountered during the inventory. One previously recorded resource was revisited, site 32ME220.

Site 32ME220 was recorded by C.I. Dill in 1977 and last updated in 1980. It consisted of seven stone circles on low hills along the east side of the valley. This site is located in the northeastern

portion of the project corridor. This area has been mined and reclaimed in recent years, and is now covered in introduced prairie vegetation. The site was destroyed as a result of mining activities.

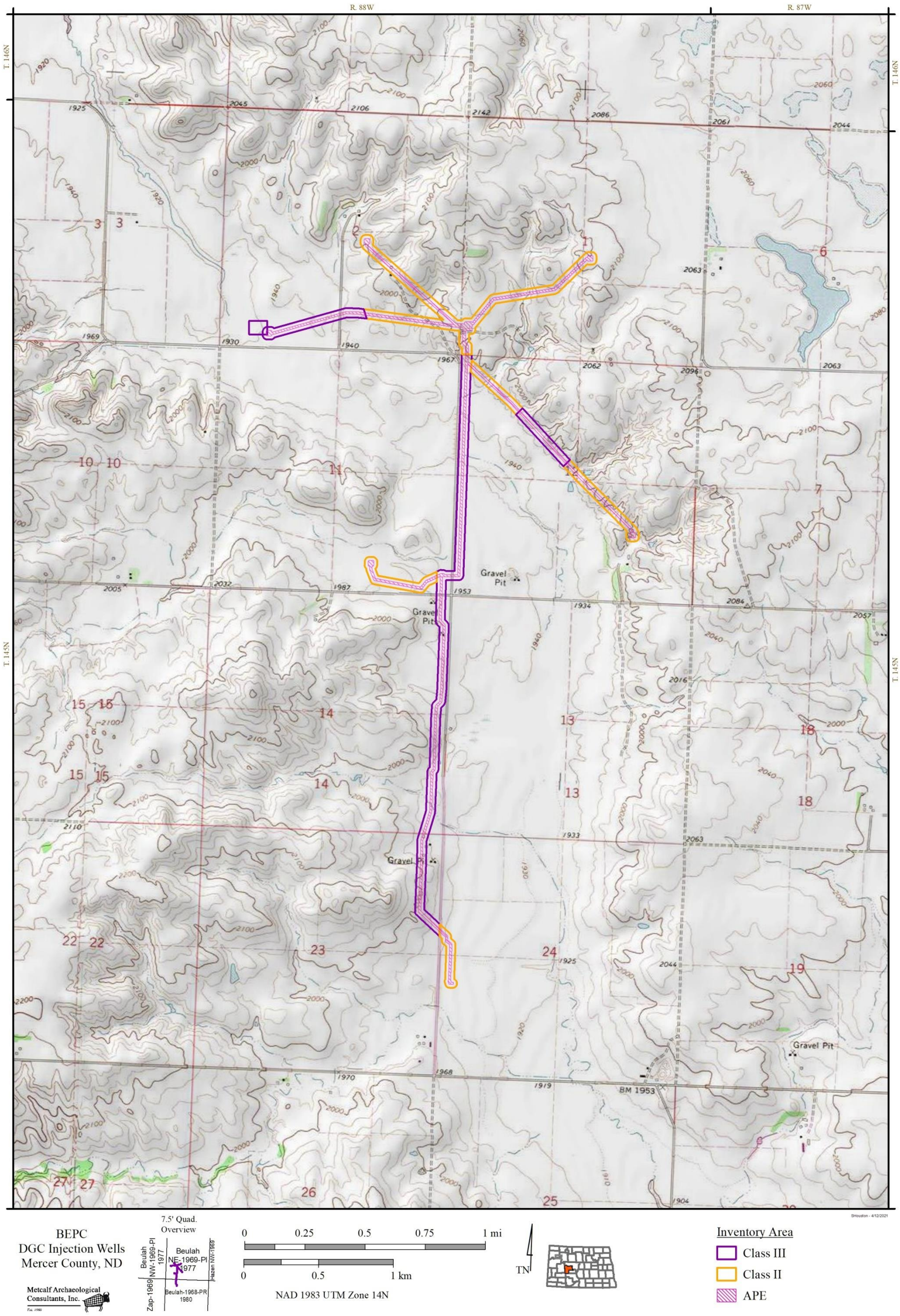
A cultural resources report will be submitted to SHSND for review before April 20.

REFERENCES

Deaver, K. (editor)
1990 *Mitigation of Site 32ME220, Mercer County, North Dakota*. Ethnoscience Report, Billings, Montana. Prepared for the Coteau Properties Company.

Meens, D.
2021 *Dakota Gasification Company: A Class III Cultural Resource Inventory for a CO_2 Injection Pipeline in Mercer County, North Dakota.* Metcalf Archaeological Consultants, Inc, Bismarck North Dakota.

State Historical Society of North Dakota (SHSND)
2020 *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects.* https://www.history.nd.gov/hp/PDFinfo/North-Dakota-SHPO-Guidelines-Manual-for-Cultural-Resource-Inventory-Projects.pdf.



Map 1: The location of the project corridor and survey areas depicted on the USGS 7.5' Beulah NE (1969 PI 1977)) and Beulah (1968 PR 1980) quadrangle maps.

APPENDIX F

DGC 10-YEAR PLAN

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

June 30, 2020

Mr. Steve Kaul
Executive Secretary
North Dakota Public Service Commission
State Capitol Building
600 E. Boulevard Ave. Dept. 408
Bismarck, ND 58505-0480

Dear Mr. Kaul:

Re: Dakota Gasification Ten-Year Plan

Enclosed please find ten copies of Dakota Gasification Company's Ten-Year Plan in accordance with NDCC 49-22-04. Notice of the filing of this plan is given to the state agencies and officers as denoted on the attached Service List pursuant to Articles 69-06-01-05 and 69-06-02-02 of the North Dakota Administrative Code.

Sincerely,

Dale Johnson (Jun 30, 2020 10:48 CDT)

Dale A. Johnson
Sr. Vice President & COO

/sw
Enclosures

cc: Ms. Shana Brost, Mercer County Auditor
Service List (without Enclosure)

DAKOTA GASIFICATION COMPANY
NORTH DAKOTA TEN-YEAR PLAN

June 30, 2020

Submitted to the North Dakota Public Service Commission
pursuant to
North Dakota Century Code Section 49-22-04

EXISTING ENERGY CONVERSION FACILITIES

The Great Plains Synfuels Plant (**Synfuels Plant**), owned and operated by Dakota Gasification Company (**Dakota**), a wholly-owned subsidiary of Basin Electric Power Cooperative (**Basin Electric**), is located approximately eight miles northwest of Beulah, North Dakota. The Synfuels Plant uses technology developed by the Lurgi corporation of Germany to convert lignite coal into synthetic natural gas (**SNG**). The Synfuels Plant is presently capable of producing up to 170 million cubic feet of SNG per day. In addition to producing SNG, the Synfuels Plant presently also produces and sells twelve other products: urea, anhydrous ammonia, diesel exhaust fluid **(DEF)**, carbon dioxide (gas), carbon dioxide (liquid), tar oil, ammonium sulfate, crude cresylic acid, krypton-xenon, liquid nitrogen, naphtha, and phenol.

Coal gasification involves a process which combines carbon and hydrogen from the lignite coal under high pressure with steam and oxygen to produce methane. The first step in the Lurgi gasification process is the screening of approximately 32,000 tons of lignite per day into a top size of two-inch diameter pieces. During this "sizing" process, approximately 13,200 tons of lignite "fines" per day are screened out. These fines are particles of lignite that are too small to gasify. The fines are sold to Basin Electric for use in generating electricity. The other 19,000 tons of sized lignite per day are delivered to the Synfuels Plant and are used as feedstock for the plant's gasifiers.

The gasifiers are cylindrical pressure vessels 40 feet high and have an inside diameter of 13 feet. The Synfuels Plant has 14 gasifiers. Sized lignite enters the tops of these gasifiers forming tall beds of lignite. Steam and oxygen (produced on site) are fed into the bottom of the lignite beds causing intense combustion (2,200°F). The resulting hot gases break down the molecular bonds in the lignite and steam, releasing compounds of carbon, hydrogen, nitrogen, sulfur and other substances to form a raw gas. This raw gas is then cooled causing tars, oils, phenol, ammonia and some water vapor to condense into liquids. These liquids are then processed separately from the main gas stream.

Shift conversion, or hydrogen enrichment, is the next step in the process. The raw gas now contains about 2-1/4 parts hydrogen to one part carbon monoxide. To increase the ratio to 3:1 (the minimum needed for methanation) some of the raw gas is passed through catalytic reactors. These reactors convert part of the carbon monoxide and water to hydrogen and carbon dioxide. The raw gas now contains the proper mix of hydrogen and carbon monoxide for SNG production; but first, acid gas and organic impurities must be removed in the Rectisol unit. In the Rectisol unit (the last step before methanation), the raw gas passes through a wash of cold methanol (-95°F) which removes sulfur compounds, naphtha and most of the carbon dioxide.

Methanation takes place by passing the clean gas over beds of a nickel catalyst causing carbon monoxide and most of the remaining carbon dioxide to react with the free hydrogen to form methane. Final cleanup removes traces of carbon monoxide and readies gas for compression into pipeline quality SNG.

Coordination Efforts. Adjacent to the Synfuels Plant is the Antelope Valley Station (**AVS**), an electric generating station which is part of a regional power supply system operated by Basin Electric. The Synfuels Plant and AVS share certain common facilities including water supply, water treatment, coal handling, rail and electrical transmission. Lignite for both plants is delivered from the nearby Freedom Mine, operated by The Coteau Properties Company (**Coteau**), a subsidiary of The North American Coal Corporation. Most mining equipment is owned or leased by Dakota Coal Company (another subsidiary of Basin Electric) and is either leased or subleased to Coteau. Dakota Coal Company was incorporated in 1988 and was organized to supply lignite coal to AVS and the Synfuels Plant.

No Planned Removal or Construction. Dakota has no plan to remove any of its existing energy conversion facilities from service or add facilities during the ten-year period.

EXISTING TRANSMISSION PIPELINES FACILITIES

The water supply for the Synfuels Plant is provided by a 42-inch diameter steel-lined pipe owned by Basin Electric, which is approximately nine miles in length. This water pipeline also supplies water for Basin Electric's AVS which is located adjacent to the Synfuels Plant. The raw water line runs directly south from an intake structure and pumping station located on Lake Sakakawea to AVS. In turn, AVS processes a portion of the water through cold lime softening and transports the softened water to the Synfuels Plant. The line has a maximum operating pressure of 160 psi gauge and a flow rate of 30,000 gpm. The pipeline was constructed with a minimum cover of seven feet.

Pipeline transmission facilities owned by Dakota include its 34-mile, 24-inch diameter Class A carbon steel pipeline extending from the tailgate of the Synfuels Plant, running southwest to an interconnection at the Hebron Tap where it interconnects with the Northern Border Pipeline. The Northern Border Pipeline transports the SNG along with large quantities of Canadian and Bakken natural gas to Ventura and Harper, Iowa and North Hayden, Indiana where it reaches an interconnection to a network of pipeline systems serving customers throughout the United States.

There are two metering stations on the Synfuels Plant to Hebron Tap pipeline, one of them at the Synfuels Plant and the other at the Hebron Tap. These metering stations measure the quantity of SNG transported and analyze SNG quality. Maximum design operating pressure of this pipeline is 1,440 psi. The pipeline is capable of transporting considerably more than 170 million standard cubic feet of SNG per day produced by the Synfuels Plant as it was designed to transport SNG for a coal gasification plant twice the size of the present facility. There is a mid-valve on the pipeline that automatically closes in the event of sudden depressurization. The pipeline first transported SNG on July 28, 1984. The pipeline was constructed with a minimum cover of four feet.

The SNG is compressed by two separate two-stage Allis-Chalmers compressors. In December 1991, Dakota installed two new turbine drivers from Mitsubishi International Corporation in order to have sufficient horsepower to deliver the Synfuels Plant's production into the Northern Border Pipeline system. These turbines are 12,500 hp, 13,700 rpm drivers driven by 1,150 psi steam.

Design chemical composition of the SNG entering the pipeline is 95.33 percent methane, 3.8 percent hydrogen, .32 percent carbon dioxide, .26 percent nitrogen, .21 percent argon, 84 ppm water and 7 ppm carbon monoxide containing a heating value of about 968 Btu's per standard cubic foot (dry basis).

This pipeline is regulated under Code of Federal Regulation Title 49, Part 192 (regulations promulgated pursuant to the Natural Gas Pipeline Safety Act of 1968). Reports are monitored by the Office of Pipeline Safety, an agency of the United States Department of Transportation.

In July 1997, Dakota entered into a contract with PanCanadian Resources, which changed its name to Cenovus Energy (**Cenovus**) and has since sold sold its interest to Whitecap Energy (**Whitecap)** on behalf of the Weyburn Unit pursuant to which Dakota constructed and operates a carbon dioxide pipeline from the Synfuels Plant to the U.S./Canadian border including a compressor station at the Synfuels Plant. The contract initially allowed for purchase up to 95 million standard cubic feet per day (**MMSCF/D**) of carbon dioxide and deliveries commenced in 2001. In May 2005, Dakota signed a contract with Apache Canada Ltd, which subsequently sold its interest to Cardinal Energy, of Weyburn, Saskatchewan to supply their Midale Unit with up to 25 MMSCF/D of carbon dioxide. Dakota and Cenovus were parties to a second sales arrangement calling for the delivery of up to 30 MMSCF/D of carbon dioxide. These additional deliveries required the installation of a third

compressor at the Synfuels Plant and a Booster Pump at Tioga, ND. This second Cenovus contract has since expired. At full production, the Synfuels Plant produces 210 MMSCF/D of carbon dioxide. The pipeline, with sufficient compression, is capable of transporting the entire 210 MMSCF/D output to Tioga and up to 165 MMSCF/D from Tioga to the Canadian border. Dakota continues to investigate the opportunity to sell the remaining carbon dioxide for enhanced oil recovery in the Williston Basin region, or inject the carbon dioxide into Class VI wells for permanent sequestration. These options would require installation of lateral pipelines branching from Dakota's facility or from the existing pipeline.

The carbon dioxide pipeline proceeds in a westerly direction from the Synfuels Plant to a point near Killdeer, North Dakota where it turns north, goes under the Little Missouri River and Lake Sakakawea and crosses the United States/Canadian border north of Crosby, North Dakota. The pipeline traverses the major production areas of the northern portion of the Williston Basin. Carbon dioxide is economically available to oil production companies operating in that area. In addition, a connection was placed near Killdeer, North Dakota where the pipeline turns northward which would enable future expansion of the carbon dioxide pipeline south to the oil fields in the Dickinson, North Dakota area and/or into Montana. The pipeline is approximately 167 miles in length. An interconnecting pipeline in Saskatchewan, Canada owned by Dakota's Canadian subsidiary, Souris Valley Pipeline Limited (**SVPL**), is approximately 38 miles in length.

A compressor facility located within the Synfuels Plant boosts the carbon dioxide stream pressure to approximately 2,700 psig to ensure delivery to the oil fields at Weyburn and Midale at a minimum pressure of 2,200 psig. The carbon dioxide is transported in a super critical dense phase which reacts like a liquid. From the Synfuels Plant to Tioga, the pipe has a diameter of 14 inches with a wall thickness of 0.375 inches. From Tioga to the Canadian border, the pipe has a 12-inch diameter and a wall thickness of 0.375 inches. Mainline pipe was constructed using Grade X70 high frequency electric resistance welded steel pipe. Road and railroad crossings were constructed using Grade X65 SMLS pipe. Pipe for the Little Missouri and Lake Sakakawea was also Grade X65 SMLS pipe with Abrasion Resistant coating. All pipe and field joints were coated with a fusion-bonded epoxy to an average thickness of 16 mills. All field welds were radiographed. The gas stream transported contains a minimum of 94 percent carbon dioxide by volume, and contains less than two percent by volume of hydrogen sulfide, less than two percent by volume nitrogen and less than two percent by volume of methane. This pipeline and associated facilities were designed and constructed and are operated and maintained in accordance with the requirements of the U.S. Department of Transportation, Pipeline Safety Regulations Code of Federal Regulations Title 49, Part 195, Transportation of Hazardous Liquids by Pipeline.

The entire carbon dioxide pipeline system (including the SVPL pipeline in Saskatchewan) is operated remotely from Dakota's operations center at the Synfuels Plant by means of a microwave-based radio communication system.

In 2014, Dakota constructed a synthetic natural gas pipeline to transport synthetic natural gas from Dakota's Synfuels Plant plant site to the adjacent AVS plant site. Dakota owns, operates, and maintains this pipeline.

No Planned Removal or Construction. Dakota has no current plan to remove any of its existing transmission pipeline facilities from service or add facilities during the ten-year period. However, Dakota is evaluating any opportunities that could be available through Section 45Q of the Internal Revenue Code with respect to the balance of carbon dioxide produced by the Synfuels Plant which is not being sold to the Canadian oil fields.

0

ENVIRONMENTAL

Dakota has acquired all of the environmental permits that are required for the construction and/or operation of the Synfuels Plant, including those for the 1,100 ton/day urea production facility that began operation in 2018.

The various active environmental permits issued by the Department of Environmental Quality include the air pollution control permits, deep well injection permits, solid waste disposal permits, hazardous waste storage permits, storm water pollution prevention permits and a Title V Permit to Operate.

Within this ten-year period, Dakota intends to expand the ash disposal landfill adjacent to the current site.

PROJECTED DEMAND FOR SERVICES

In February 2018, Dakota completed a 1,100 ton/day urea production facility adjacent to the Synfuels Plant. A diesel exhaust fluid (**DEF**) production facility was constructed as part of this facility. Urea and demineralized water are used to manufacture DEF. Dakota began construction during the summer of 2014. This project also included the construction of additional rail load-out facilities. The feedstock for the urea plant includes both anhydrous ammonia and the relatively pure carbon dioxide produced by Dakota's ammonia plant. The urea and DEF produced by Dakota is delivered by both rail and truck. As part of the urea construction project, a carbon dioxide liquefaction and storage facility was also constructed. In June of 2020 Dakota began selling up to 100 Tons per day of food grade liquid carbon dioxide. Liquid CO_2 is being shipped via truck.

Dakota continues to research and develop potential product lines including, most recently argon extraction from the existing air separation unit. This project would be located within the current plant boundaries and the product would be shipped primarily via truck or rail.

Additionally, Dakota is considering a relatively small project on the existing site to upgrade a naphtha-type stream blended with the existing naphtha product to form a saleable chemical feedstock or gasoline additive. This product would be shipped via rail in place of the existing naphtha product.

Dakota Gasification Company
2020 North Dakota Ten Year Plan
Service List - Notice of Filing

North Dakota Aeronautics Commission
P.O. Box 5020
Bismarck, ND 58502-5020

North Dakota Office of Attorney General
State Capitol Building Dept 125
600 East Boulevard Avenue
Bismarck, ND 58505

North Dakota Department of Agriculture
State Capitol Building Dept 602
600 East Boulevard Avenue
Bismarck, ND 58505-0020

North Dakota Department of Health
State Capitol Building 2nd Floor Judicial Wing
600 East Boulevard Avenue
Bismarck, ND 58505-0200

North Dakota Department of Human Services
State Capitol Judicial Wing Dept 325
600 East Boulevard Avenue
Bismarck, ND 58505-0250

North Dakota Department of Labor and Human Rights
600 East Boulevard Avenue Dept 406
Bismarck, ND 58505-0340

North Dakota Department of Career & Technical Education
State Capitol Building, 15th Floor Dept 270
600 East Boulevard Avenue
Bismarck, ND 58505-0610

North Dakota Department of Commerce
1600 East Century Avenue, Suite 2
PO Box 2057
Bismarck, ND 58503

Energy Infrastructure and Impact Office
North Dakota Department of Trust Lands
1707 North 9th Street
P.O. Box 5523
Bismarck, ND 58506-5523

North Dakota Game & Fish Department
100 North Bismarck Expressway
Bismarck, ND 58501-5095

Job Service of North Dakota
P.O. Box 5507
Bismarck, ND 58506-5507

North Dakota Department of Trust Lands
1707 North 9th Street
PO Box 5523
Bismarck, ND 58506-5523

North Dakota Parks & Recreation Department
1600 East Century Avenue, Suite 3
P.O. Box 5594
Bismarck, ND 58505-5594

ND State Soil Conservation Committee
c/o NDSU Extension Service
2718 Gateway Avenue, Suite 304
Bismarck, ND 58503

North Dakota State Water Commission
900 East Boulevard Avenue Dept 770
Bismarck, ND 58502-0850

United States Department of Defense
1400 Defense Pentagon
Washington, DC 20301-1400 United States

Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

United States Army Corps of Engineers
North Dakota Regulatory Office
1513 South 12th Street
Bismarck, ND 58504

Federal Aviation Administration
United States Department of Transportation
800 Independence Avenue SW
Washington, DC 20591

North Dakota Transmission Authority
c/o North Dakota Industrial Commission
State Capitol, 14th Floor
600 East Boulevard Avenue Dept. 405
Bismarck, ND 58505-0840

North Dakota Industrial Commission
State Capitol Building, 14th Floor Dept 405
600 E Boulevard Avenue
Bismarck, ND 58505-0840

Office of Governor
State Capitol Building
600 East Boulevard Avenue
Bismarck, ND 58505-0100

North Dakota Department of Transportation
608 East Boulevard Avenue
Bismarck, ND 58505-0700

State Historical Society of North Dakota
Heritage Center
612 East Boulevard Avenue
Bismarck, ND 58505-0830

Indian Affairs Commission
1st Floor Judicial Wing Rm 117
600 East Boulevard Avenue
Bismarck, ND 58505-0300

North Dakota Pipeline Authority
c/o North Dakota Industrial Commission
State Capitol 14th Floor
600 East Boulevard Avenue Dept. 405
Bismarck, ND 58505-0840

APPENDIX G

DGC CO2 PIPELINE EMERGENCY RESPONSE PLAN

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

DAKOTA GASIFICATION COMPANY PROCEDURE

Origination Date:	Procedure No.:	Revision No.:
	4321	14

Affected Area(s):	Originating Department:	
All	Protection Services	
	Final Approval:	Date:
	/s/ Dale Johnson	12/24/17

Procedure Description:

CO2 Pipeline Emergency Response Plan (U.S. Section)

I. PURPOSE

The purpose of the Emergency Response plan is to establish a set of guidelines to ensure the public safety in the event of a carbon dioxide pipeline emergency.

The CO_2 pipeline transports CO_2 containing up to 2% H_2S at 2700 psig from the Dakota Gasification Company Plant Site to a central receiving terminal near Goodwater, Saskatchewan. The CO_2 product transported by this pipeline will be a gas when released to the atmosphere, therefore this plan addresses an emergency response to a gas release due to line leak or rupture. Because of the gaseous nature of the product, emergency response to spills that may contaminate groundwater, rivers, lakes, pose a hazard to wildlife, or require extensive cleanup have not been included in this plan. Weather related incidents that may affect the pipeline will also be monitored.

II. SCOPE

This Emergency Response Plan (ERP), in its entirety is intended to provide the necessary information for pre-emergency planning as well as a step-by-step procedure to be used during an emergency. This plan encompasses the portion of the carbon dioxide pipeline that originates at Dakota Gasification Company, northwest of Beulah, ND and terminates northwest of Noonan, ND at the U.S./Canadian border.

III. REFERENCES

- DGC Procedure No. 4310 - DGC Plant Emergency Plan
- DGC Procedure No. 024 Emergency Planning and Response
- DGC Procedure No. 323 – Electrical Utility Notification
- DGC Procedure No. 30-210 – R911 Computerized System Procedure
- 74-001 Federal Requirements for Reporting Pipeline Accidents
- 74-002 Federal Requirements for Reporting Carbon Dioxide Pipeline
- 74-018 Response to Abnormal Operating Conditions
- 49 CFR Part 195.402E
- 49 CFR Part 1910.120
- 590-06-EM Pipeline Abnormal

IV. DEFINITIONS

Class I Pipeline Emergency Response: Upon receiving report of potential injury, environmental damage or release involving DGC pipeline, a two-man crew should be dispatched from the plant site as quickly as possible. The Class I responders shall be Operator Qualified Pipeline Emergency Response Technicians.

Class II Pipeline Emergency Response: In the event the class I response is confirmed by the presence of an abnormal operation condition, three additional Operator Qualified Pipeline Emergency Response Technicians should be dispatched for entry into the hot zone.

Class III Pipeline Emergency Response: Field confirmation indicates there is potential for the incident to escalate and poses a threat to the public, all available Operator Qualified Pipeline Emergency Response Technicians should be dispatched.

Class IV Pipeline Emergency Response: A serious injury or fatality has occurred, and/or there is an ongoing threat to the public. Additional support staff should be dispatched for incident management and unified command

Controller: Those persons (board operator) that monitor SCADA data from the control rooms and have operational authority and accountability for the remote operational functions of the pipeline facility.

Dakota Gasification Company: *(DGC);* Coal gasification plant owned and operated by Dakota Gasification Company. Located northwest of Beulah, ND. Produces, compresses, and exports CO_2 to the pipeline.

DGC Protection Services Control Center (PSCC): On-site Emergency Operations center that will receive first notification of an emergency, will initiate additional notifications, and will serve as the incident command center for emergency planning and response.

Emergency out-calling System: The emergency “out call” system is designed to notify those residents living or working within the pipeline corridor that a pipeline emergency has occurred with the potential to affect them. In Canada the pipeline corridor is two kilometers in width on each side of the pipeline or four kilometers total, while in the United States the pipeline corridor is two miles in width, one mile on either side of the pipeline. The population density in this corridor is surveyed and the information updated every year.

When a pipeline emergency is declared, the emergency “out call” system may be initiated from Dakota Gasification Company for those residents on the affected pipeline segment(s). The computer driven system has four hundred dedicated phone lines which will deliver a recorded message alerting the resident of the pipeline emergency. It will take approximately one minute to complete these calls. Any unanswered calls will be repeated nine times at three-minute intervals. During the time between the retry intervals any additional residents in the affected area will be called.

The emergency “out call” system also has the capability of calling an alternate phone number if unable to reach a resident on the first try.

Each resident will be notified annually and asked if the current notification numbers are correct and if they wish to provide additional phone numbers.

Emergency Response Crew: A five man crew of hazardous material technicians dispatched from the plant site to assess the emergency, establish the hot zone, assist the first responders, and carry out an action plan to resolve the emergency situation.

EPA (Environmental Protection Agency) Level B Chemical Protection: A Level of personnel protective equipment that gives the wearer the maximum amount of respiratory

protection and a medium level of skin protection. Level B equipment consists of a Self-Contained Breathing Apparatus, Chemical Resistant Clothing, Inner and Outer Chemical Resistant Gloves, and Chemical Resistant Safety boots.

ESD: Emergency Shut Down

First Responder: Local/County fire rescue, medical, or Sheriff Department personnel dispatched to assist with emergency.

Hot Zone: Area around a pipeline leak with any concentration of H_2S gas and/or oxygen levels below 19.5% or greater than 23.5%. Hot Zone will be determined by the use of gas/air monitoring equipment.

Incident Commander: The individual responsible for directing and coordinating the overall emergency response.

Incident Command Center: The communication center set up to receive information from the emergency crew, as well as an assembly point to coordinate response activities and carry out risk assessment.

Incident Log: Log completed by Protection Services Control Center and Emergency Response Crew to log all activities during the emergency. Should include times, names of contacts, names of responders, and all activities performed during the emergency.

Mainline Valve: (MLV) Valves located along the pipeline route, can be remotely operated from DGC. There are 11 valves between DGC and the U.S. /Canadian border.

MIS: Management Information System

Pipeline Section: Refers to a section of pipeline between MLV sites. (Example: section 1 refers to the section from DGC to MLV #1, section 2 refers to the section from MLV #1 to MLV #2) Pipeline starts after 8th stage flange of CO2 compressors.

Pipeline Emergency: unplanned gas release or pipeline failure that may pose a risk to the public or the environment.

Qualified: An individual that has been evaluated, can perform assigned covered tasks, recognize and react appropriately to abnormal operating conditions.

Safety Officer: The Safety Officer assesses hazardous and unsafe situations and develops measures for assuring personnel safety at the incident. The Safety Officer must be trained to the hazardous materials technician level and reports directly to the incident commander.

Span of Control: The maximum number of non-qualified individuals that a qualified individual can direct and observe performing a covered task.

SVPL: Souris Valley Pipeline Limited

V. RESPONSIBILITIES

Protection Services in collaboration with the Shift Superintendent, Pipeline Controllers and Operations and emergency response operator qualified personnel are responsible for the implementation, training, and review of this emergency response plan.

Training requirements can be found in DGC Procedure No. 024 Emergency Planning and Response and DGC Procedure No. 4310 - DGC Plant Emergency Plan.

Review of this emergency plan shall occur at intervals not to exceed 15 months, but at least once each calendar year.

VI. INSTRUCTIONS

A. Emergency Response Quick Reference Flow Chart

STEP 1

Pipeline emergency reported to DGC Protection Services Control Center (PSCC).

- All pertinent information is recorded on “Record of Emergency Notification PLR-E-1” (DGC 0342).
- PSCC starts the “Incident Log PLR-E-2 (DGC 0343).
- PSCC notifies Shift Superintendent of the pipeline emergency.
- Shift Superintendent shall review the Record of Emergency Notification PLR-E1 and the decision matrix on page 2 of PLR-E1 to determine the response class for the initial response.
- A Class I Pipeline Emergency response shall be initiated for any unconfirmed report or odor complaint that may involve DGC pipelines and considered an emergency until proven otherwise.
- PSCC establishes Incident Command Center.

STEP 2

Shift Superintendent assumes role of Incident Commander and moves to the PSCC, Incident Commander declares a CO2 pipeline emergency and directs the following responses.

- The Incident Commander shall consult with the pipeline controller to determine if there are abnormal operating conditions or other indications that warrant additional class II, III or IV resources be dispatched (refer to the Decision Matrix on page 2 of PLRE1).
    - The qualified Controller has the responsibility and authority to mitigate the effects of the condition by taking extreme measures such as shutting down all or part of the pipeline, utilizing the flare system, curtailing product transfer, or the operation of remote valves if they believe that continuing to run the pipeline could result in a hazard to the public or the environment.
    - The qualified Controller should contact SVPL, Whitecap Resources and Cardinal Energy Representatives providing an assessment of the incident.
- Incident Commander contacts local emergency response agency by (live) telephone informing them of the current situation and establish a line of communication.

- PSCC to initiate “out call” phone system for affected pipeline sections and agencies.
- PSCC to notify Pipeline Operator Qualified Superintendent, Supervisor and Operator Qualified pipeline Technicians and DGC Management.
- PSCC to notify SVPL Representative.
- Qualified Superintendent directs (unqualified superintendent advises) O2 Plant Supervision to initiate ESD of the pipeline by closing MLV’s to isolate affected pipeline sections and shutdown Tioga Booster.
- Shift Superintendent to notify Office of Pipeline Safety.
- Shift Superintendent to notify North Dakota Public Service Commission.

STEP 3

Class I response: Incident Commander dispatches 1st Emergency Response Crew as quickly as possible. The crew consisting of two Operator Qualified Pipeline Emergency Response Technicians to the incident site.

- Emergency Crew will not enter the “hot zone” without a second backup emergency crew and Safety Officer on site.
- O2 Plant qualified Controller confirms ESD of CO2 pipeline and monitors all communication with the emergency crew via radio or telephone.
- Operator Qualified Supervisor or Operator Qualified Controller confirms MLV site valve closure in the field at location of emergency. (Field verification of ESD)
- PSCC confirms “out call” system notifications were completed and Management contacts have been made.
- PSCC confirms SVPL Representative has been contacted.

Class II response: Incident Commander dispatches 2nd Emergency Response Crew consisting of three Operator Qualified Pipeline Emergency Response Technicians.

STEP 4

1st Emergency Response Crew arrives at incident site and initiates on scene response.

- Open continuous communication with PSCC and pipeline controllers.
- Determine if there are injured people requiring immediate rescue.
- Request medical assistance for any injured people.
- Determine exact location of the incident.
- Determine wind speed and direction.
- Establish initial “hot zone” and monitor for changes in size, boundary or direction.
- Restrict access to incident site, keep spectators and traffic away.

- Standby to assist First Responders.
- Assess the need for additional emergency crews or additional resources.

STEP 5

Incident Commander performs risk assessment based on information from 1st Emergency Response Crew.

- Determine if there are receptors, population centers or public facilities at risk.
- Determine if involved receptors should be evacuated or Shelter-In-Place.
- Determine if an environmentally sensitive area is at risk.
- Determine if it is necessary to vent down the pipeline at a lower risk location.
- Determine if additional qualified personnel and support staff (class II &IV response) are needed.

Incident Commander directs the following responses to mitigate the emergency:

- Utilizing population density maps directs 1st Emergency Crew to assist in evacuation of receptors in the risk area as soon as the 2nd emergency Crew is on site to act as backup.
- Directs First Responders to the incident site to assist in evacuation, care and treatment of the injured and restrict access to the incident site.
- Directs PSCC to initiate the second “out call” message with specific evacuation or Shelter-In-Place data for the affected receptors.

STEP 6

1st & 2nd Emergency Crews confirm that all receptor locations in the risk area have been checked and the residents successfully evacuated.

STEP 7

1st Emergency Crew remains at the incident site to assist the First Responders.

2nd Emergency Crew proceeds with blowing down the pipeline at a safe location.

STEP 8

1st & 2nd Emergency Crews determine pipeline has vented to the atmospheric pressure and no longer provides a hazard to the public, this information is relayed to the Incident Commander.

STEP 9

Incident Commander informs the First Responders that an emergency condition no longer exists.

STEP 10

1st & 2nd Emergency Crews prepare a detailed Emergency Response report, make sure the incident site is barricaded to prevent injury to persons or livestock and maintain a 24hr surveillance of the incident site until relieved.

STEP 11

After emergency is resolved the Incident Commander will hold a Critique and Debriefing with all affected personnel involved with the incident.

B. Initial Notification of a Pipeline Emergency.

1. This notification may be received by DGC Protection Services Control Center (PSCC) from the public, fire/police/sheriff departments, or pipeline operator.
2. Notification may also be received from the Oxygen Plant Control Room based on information provided by the leak detection system.
3. Upon notification of a pipeline emergency, personnel stationed at the DGC Protection Services control center will record the information on PLR-E-1, “Record of Emergency Notification” (DGC 0342). All information must be recorded in as much detail as possible.

C. PSCC Reports to Shift Superintendent.

1. Based on the information provided by PSCC or the leak detection system, the Qualified Shift Superintendent will determine if an emergency response is required, see decision matrix on page 2 of PLR-E-1, “Record of Emergency Notification”. If an emergency response is required, the Shift Superintendent will assume the role of Incident Commander and direct the following responses:

   a) Notify Gas Processing & Oxygen Plant Supervision a CO2 pipeline emergency is in progress and to route all CO2 to the boilers. The qualified controller has authority to shut down the pipeline if they believe that continuing to run the pipeline could result in a hazard to the public or the environment.

   b) Notify Oxygen Plant (Pipeline Controller) to initiate an ESD of the pipeline by closing MLV’s. To isolate affected pipeline sections. Once all MLV valve positions indicate closed this information should be immediately relayed to the Incident Commander.

      - Pipeline Controller shall inform SVPL representative, Whitecap Resources and Cardinal Energy representatives of the incident and current condition of the pipeline.

   c) PSCC to establish an Incident Command Center.

   d) Assign ICS Planning objectives to determine which receptors and agencies need to be notified. The R911 sessions are assembled to correspond with the pipe section.

      - Use information from PLR E1 and/or Pipeline Controller to determine incident location.

- If you have the following location information (city, county or township/range/section) utilize the receptor maps to determine incident location and pipe section involved.
- If you have the incident location from the pipeline controller as distance from DGC, go to Receptor List attachment S to determine the pipe section.
- If you have a receptor name, go to Receptor List attachment S to determine the pipe section.
- If the incident is known to involve a main line valve (MLV) site or the Tioga station, the corresponding R911 session should be used to notify receptors in a 1 mile radius.
- To determine the appropriate agencies to inform, go to attachment B. Attachment B lists all agencies having jurisdiction for each section of pipe.

e) Assign ICS Operations objectives to prepare R911 system.

f) Provide ICS Operations with the appropriate notification message (evacuate or shelter in place) to be launched via R911.

- Initiate the first out-call session for the receptors in the affected pipeline section. This call will broadcast a pre-recorded message warning that a pipeline emergency has occurred that may affect the tenants/ landowners in the area and are advised to evacuate or Shelter-In-Place. (Receptor lists divided by pipeline section are provided with this plan).
- Initiate the second automated out call session for the agencies in the affected section of the pipeline. This call will broadcast a pre-recorded message warning that a pipeline emergency has occurred that may affect residents in their district.

g) PSCC to notify Pipeline Superintendent, Supervisors, technicians, DGC plant management and other resources found on attachment A.

h) Shift Superintendent to notify Office of Pipeline Safety.

i) Shift Superintendent to notify North Dakota Public Service Commission.

j) Shift Superintendent to notify the DOT National Response Center Office of Pipeline Safety within the first hour of the incident.

D. Incident Command Center Established.

1. PSCC will establish itself as the Incident Command Center, and will be staffed as needed and will begin an incident log, which will include times, names of responders, and all other activity associated with the emergency response. PLR-E-2 (DGC 0343) can be used for this purpose.
2. The Incident Command Center will also be used as an assembly point for the Incident Commander. A workspace with tables suitable for review of drawings and maps will be provided as needed to perform the risk assessment. At least two

phones should be available and staffed by Protection Services personnel to coordinate activities with the emergency crews and First Responders.

E. Emergency Crew Dispatched to Site (class I response).

1. A two-man crew will be dispatched from the plant site as quickly as possible. The first emergency crew will consist of Operator Qualified Pipeline Emergency Response Technicians. Additional emergency crews should be dispatched as soon as they are available. Prior to leaving site, the response vehicle must have personal protective equipment and toxic gas monitors. Refer to item “V” of the Attachment Section of this plan for a detailed list of the required equipment. (Located in the back of book). To ensure shortest possible response time, maps as well as instructions for access to the mainline valve sites are included in Section IX of this plan.
2. Before leaving Plant site, the crew will make the following notifications:
   a) Notify Shift Superintendent.
   b) Fill in sign out log sheet at PSCC naming each person in the crew and the suspected destination.
   c) Leave cell phone number with PSCC, and establish a call back time.

F. First Emergency Crew Arrives at Site.

1. The first emergency crew approaching the incident site should follow these guidelines:
   a) Establish continuous communication with PSCC personnel, if communication is lost, do not approach site, and move to a position where communication can be re-established.
   b) Have all multi gas monitoring equipment in operation in the vehicle before approaching the incident site to avoid driving into the hot zone without being aware of it.
   c) Approach the suspected incident site from an upwind direction.
   d) Make visual observation of area looking for casualties and trying to locate the incident site.
   e) Park vehicle a safe distance away from, and upwind of incident site.
2. Upon arrival at site, the first emergency crew will assess the situation and report back to PSCC with the following information:
   a) Exact location and severity of emergency.
   b) Any known injuries, request additional medical staff as needed.
   c) Any immediate danger to a population center.
   d) Wind direction and best approach route.

e) Evacuation route.

f) What additional emergency support is required?

3. Based on the above information, the Incident Commander will:

a) Perform a risk assessment to determine if:

(1) A public facility, population center, or gathering area is at risk.

(2) An environmentally sensitive area is at risk.

b) Direct PSCC to contact and dispatch local and county First Responders using the contact list provided in Attachment B of this plan, and provide them with the location of the incident site and specific directions on how to approach, what roads to restrict access and any casualties requiring medical attention.

c) Incident Commander should establish communication with local first responders.

d) Incident Commander will dispatch another emergency crew from the plant site as soon as qualified personnel and emergency equipment is available. Five Operator Qualified Pipeline Emergency Response Technicians will be the minimum required for entering the hot zone. This is accomplished by the first emergency crew, consisting of two hazmat technicians entering the hot zone wearing EPA level B chemical protection. While the second crew consisting of two Operator Qualified Pipeline Emergency Response Technicians are on standby also wearing EPA level B chemical protection to perform rescue if problems are encountered. The fifth technician is designated as the safety officer and will oversee the entry operations.

e) PSCC will print a data log from the R911 out bound calling on the sessions that they launched. All operator intercepts and unanswered calls from the data log will be manually called. Any answered calls from this list will be given the evacuation or Shelter-In-Place message.

4. The first emergency crew at the site will:

a) First isolate the incident in all directions a minimum of 1000 feet. This will be the initial hot zone. A more defined hot zone will be established with gas monitoring equipment when the second emergency crew arrives on site.

b) Protect person down wind.

c) Restrict access to the site.

d) Keep spectators and traffic away.

e) Remain at site to assist first responders.

G. First Responders Arrive at Site.

1. The First Responders primary goal will be to protect the public. This will be accomplished by:

a) Blocking/barricading roads to restrict access to emergency site. Restrict access to hot zone. First Responders are advised NOT to enter hot zone.

b) Evacuate tenants/landowners in the affected area.

c) Provide medical attention for the injured.

H. Additional Emergency Crews Dispatched (class II response).

1. Additional crew dispatched from DGC arrives at site to assist with evacuation.
2. First emergency crew can establish a more defined hot zone with the use of multi gas monitoring equipment.

a) With a safety officer and a backup team in place. Two technicians dressed in EPA level B chemical protective clothing equipped with gas monitoring equipment and red flags or red cones can enter the site from the upwind direction. At the point where any H_2S gas is detected, mark the area with red flags. Survey the area upwind and cross wind of the pipeline leak, marking the hot zone where any trace of H_2S gas is present. The Emergency Response Guidebook recommends that during a large release, persons downwind of the release are protected at a minimum of 1.3 miles during daylight hours and a minimum of 3.9 miles at night.

b) Incident Commander should conduct and assessment to determine if additional qualified personnel and support staff (class III & IV response) are needed.

c) At this point the emergency crew can carry out the action plan that the Incident Commander has developed.

I. Termination of Emergency.

1. The emergency response crews will determine when an emergency can be terminated, or declared “ALL-CLEAR” The criteria for making this determination will include:

a) All individuals have been evacuated from affected section.

b) The exact location of the leak resulting in an emergency has been identified, that portion of the pipeline has been adequately isolated, and product is no longer being released.

c) It is determined that the emergency does not pose a threat to the public or environment.

2. Incident Commander will contact the First Responders and inform them of the status.
3. After the emergency is resolved the Incident Commander will hold a Critique and Debriefing with all affected personnel involved in the incident. A written report will be generated and corrective action will be implemented where deficiencies are found.

J. Required Reports and Notification of State and Government Agencies.

1. PLR-E-1 Record of Emergency Notification (DGC 0342) will be completed by DGC Protection Services Control Center at the time initial notification is made. The information on this form will be required to initiate an accurate response as well as providing details for any subsequent reports, which may be filed.
2. The specialist at Protection Services Control Center as well as the emergency response crew in the field will complete PLR-E-2 Incident Log (DGC 0343). This log will serve as a record of all activity involving the emergency response. This information will be used as a guide for completing and filing any subsequent accident / incident reports.
3. PHMSAF 7000-1 Accident Report-Hazardous Liquid Pipeline To be completed and filed according to the guidelines in the procedure #74-001 Federal Requirements for Reporting Carbon Dioxide Pipeline Accidents.
4. National Energy Board in Canada requires a report any time flow is interrupted for an emergency. This is to be sent to the Transportation Safety Board of Canada (TSB.) See attachment K of Souris Valley Pipeline Limited Emergency Response Procedure 4322.
5. Notification shall be made to the North Dakota Public Service Commision.

K. Statements to the News Media.

1. All “at-the-scene” statements to the media will be handled in accordance with DGC Plant Management recommendations at the time of the incident.
2. All formal statements to the media will be generated by Basin Electric Communications department. See attachment A for contact information.

VII. ATTACHMENTS

A. ATTACHMENT A	**#4321 Attachment A - Pipeline Operations and Plant Management Contact List**
B. ATTACHMENT B	**#4321 Attachment B-First Responders and Emergency Services Contact List**
C. ATTACHMENT C	**CO2 Williams County (Attachment C)** **CO2 Divide County (Attachment C)** **CO2 McKenzie County (Attachment C)** **CO2 Mercer County (Attachment C)** **CO2 Dunn County (Attachment C)**
D. ATTACHMENT D	**CO2 Pipeline Receptor Map 1 of 14 (Attachment D)**
E. ATTACHMENT E	**CO2 Pipeline Receptor Map 2 of 14 (Attachment E)**
F. ATTACHMENT F	**CO2 Pipeline Receptor Map 3 of 14 (Attachment F)**
G. ATTACHMENT G	**CO2 Pipeline Receptor Map 4 of 14 (Attachment G)**

H. ATTACHMENT H	CO2 Pipeline Receptor Map 5 of 14 (Attachment H)
I. ATTACHMENT I	CO2 Pipeline Receptor Map 6 of 14 (Attachment I)
J. ATTACHMENT J	CO2 Pipeline Receptor Map 7 of 14 (Attachment J)
K. ATTACHMENT K	CO2 Pipeline Receptor Map 8 of 14 (Attachment K)
L. ATTACHMENT L	CO2 Pipeline Receptor Map 9 of 14 (Attachment L)
M. ATTACHMENT M	CO2 Pipeline Receptor Map 10 of 14 (Attachment M)
N. ATTACHMENT N	CO2 Pipeline Receptor Map 11 of 14 (Attachment N)
O. ATTACHMENT O	CO2 Pipeline Receptor Map 12 of 14 (Attachment O)
P. ATTACHMENT P	CO2 Pipeline Receptor Map 13 of 14 (Attachment P)
Q. ATTACHMENT Q	CO2 Pipeline Receptor Map 14 of 14 (Attachment Q)
R. ATTACHMENT R	#4321 Attachment R Receptor List Sorted by Section
S. ATTACHMENT S	#4321 Attachment S Receptor List 20171109
T. ATTACHMENT T	DGC 0342 - PLR-E1 Record of Emergency Notification
U. ATTACHMENT U	DGC 0343 - PLR-E2 Incident Log
V. ATTACHMENT V	Emergency Equipment List - PROTSERV073
W. ATTACHMENT W	Carbon Dioxide MSDS (REV 7)
X. ATTACHMENT X	#4321 Attachment X Mainline Valve Site Locations

APPENDIX H

UNANTICIPATED DISCOVERY PLAN

Unanticipated Discovery Plan for Cultural Resources and Human Remains

Dakota Carbon Pipeline
Dakota Gasification Company
Mercer County, North Dakota

April 2021

Introduction

Although Dakota Gasification Company (DGC) has conducted thorough surveys for cultural resources along the Dakota Carbon Pipeline Project (Project) corridor and route, the potential exists for exposure of previously unidentified or buried cultural material during excavation and construction of the pipeline and associated facilities. The purpose of the Unanticipated Discovery Plan (UDP) is to document the procedures to be implemented by DGC's construction coordinator and/or contractor if cultural resources, including archaeological sites and possible human remains, are inadvertently discovered during construction. This plan complies with the North Dakota's "Protection of Human Burial Sites, Human Remains, and Burial Goods" law (North Dakota Century Code [NDCC] 23-06-27) and accompanying administrative rules (North Dakota Administrative Code [NDAC] 40-02-03).

Unanticipated Discovery

In the event that previously unknown cultural (or paleontological) resources are discovered within the Area of Potential Effects (APE) during construction activities for the Project, or should those activities directly or indirectly affect known cultural resources in an unanticipated manner, the following actions, at a minimum, will be initiated by DGC or a representative duly authorized to perform these tasks:

1. All activities will halt in the immediate vicinity of the discovery and all actions will be redirected to areas at least 100 feet from the edge of the discovery.
    a. DGC's construction coordinator and/or contractor will immediately report the discovery to the appropriate parties identified in the Emergency Contact List found later in this document.
    b. Ground disturbing construction activities will not occur within 100 feet in any direction from the cultural resource until the site has been properly assessed as described in paragraph 2 (below) and the State Historical Society of North Dakota (SHSND) concurs that construction may resume.
    c. In the event that a cultural resource specialist or other necessary persons are not immediately available, DGC will require that the discovery be covered or otherwise protected until such time that the cultural resource specialist can be present for inspection and evaluation.

2. Upon arriving at the site of the discovery, the cultural resource specialist will assess the resource. The assessment will include:
    a. The cultural resource specialist, in conjunction with a tribal monitor if appropriate, will ascertain the nature and the extent of the resource, and the potential for intact deposits. Evaluation will involve an examination of the ground surface, backfill piles, and exposed construction surfaces. The cultural resource specialist will discuss the potential for additional impacts to the resource with the construction manager.
    b. Based on this examination, the cultural resource specialist will recommend the unanticipated discovery location is:
        (1) not a site (e.g., isolated find or less than 50 years in age);
        (2) not a historic property, i.e., not eligible for inclusion in the National Register of Historic Places (NRHP);
        (3) a historic property, i.e., eligible for inclusion in NRHP or a culturally sensitive site for which no further impacts are likely to occur;

(4) an NRHP-eligible or a culturally sensitive site (e.g., exposed hearths, house pits) that is likely to be impacted with further construction; or,

(5) a site for which additional information is required to ascertain extent and NRHP eligibility.

The cultural resource specialist will provide information and a recommendation regarding the potential resource to SHSND to determine the most appropriate course of action.

Emergency Stabilization of Cultural Resources

Unstable earth conditions during construction or other unforeseen natural or man-made events could endanger cultural resources discovered during construction of the Project. If cultural resources are in imminent danger of destruction, DGC will apply prudent methods to stabilize landforms around the unanticipated discovery. Once stabilized, the resource shall be assessed as described above, subject to safety concerns.

Salvage, Curation or Disposition of Cultural Materials

As stated in item 2.b.5 above, additional information may be required for the cultural resource specialist to assess the nature and extent of an unanticipated discovery and to provide a recommendation to SHSND regarding NRHP eligibility. With appropriate concurrence from SHSND, cultural materials may be salvaged for this purpose. This does not include cultural resources that are covered under North Dakota's "Protection of human remains, and burial goods" law (NDCC 23-06-27) and accompanying administrative rules (NDAC 40-02-03). All other cultural materials recovered from privately owned lands are considered the property of the landowner. After necessary laboratory analysis is completed, DGC will provide the landowner with photographs and descriptions of cultural materials from his/her property. The landowner will be encouraged to contribute the materials for curation at the SHSND. If the landowner desires, DGC will return cultural materials recovered from his/her land to him/her.

Unanticipated Discovery of Human Remains

If construction or other Project personnel identify what they believe to be human remains, they will immediately halt construction at that location and DGC and the cultural resource specialist will be notified immediately. The construction coordinator will ensure that further construction does not occur within an area less than 100 feet in any direction from the edge of the discovery until a cultural resource specialist, in conjunction with DGC environmental personnel, arrive to assess the discovery. The inspector will also secure the area of the apparent human remains to ensure no further disturbance or removal of those remains and associated material.

After arrival at the site, the cultural resource specialist will evaluate the discovery to determine if it does in fact consist of human remains. As required by law, DGC will notify the Mercer County Sheriff within 24 hours of the discovery. DGC will also notify the SHSND of the finding.

DGC and/or the contractor will secure the location by means of flagging or roping the perimeter of the avoidance area and covering or otherwise protecting the human remains and any associated materials. The remains will not be further disturbed prior to completion of consultations with respective agencies unless such disturbance is necessary to preserve or protect the human remains. Any disturbance necessary to preserve or protect the remains must be done in consultation with law enforcement, SHSND, and the cultural resource specialist. The 100-foot-radius avoidance area may be expanded if the context of the human remains suggests additional human remains may be present within the construction area or if construction activities outside the 100-foot-radius area might destabilize or otherwise degrade the context of the human remains.

Law enforcement will determine whether the finding is associated with a crime scene within 15 days. If deemed not a crime scene, law enforcement will notify the SHSND of their findings. No cultural resource investigations of human remains can occur without a permit from SHSND. The cultural resource specialist will work with SHSND to obtain a permit to conduct investigations of the location. If the remains are determined to be Native American, or if the

ethnic identity of the remains is unknown, SHSND will notify the Intertribal Re-interment Committee. A meeting of interested parties will be set up as soon as possible, preferably within 36 hours of the decision that there is no evidence of a crime, to ensure that the disturbed remains receive the maximum protection. SHSND, in consultation with the tribes (as appropriate) and DGC, will agree upon a suitable action.

Work cannot proceed until the stipulations of Protection of Human Burial Sites, Human Remains and Burial Goods in NDCC Section 23-06-27 and Protection of Prehistoric Sites and Deposits in NDAC Section 40-02-03 have been met.

Emergency Contact List

Entity	Name	Role	Telephone Number
Basin Electric Power Cooperative	Lucas Tiegen	Manager Field Services	701.223.0441
Basin Electric Power Cooperative	Kevin Solie	Environmental Administrator	701.223.0441
Basin Electric Power Cooperative	Tyler Schilke	Project Manager	701.223.0441
Metcalf Archaeological Consultants, Inc.	Daan Meens	Cultural Resource Specialist	701.258.1215
Mercer County Sheriff's Office	Dean Danzeisen	County Sheriff	701.745.3333
Mercer County Coroner	Hazen Clinic	County Coroner	701.748.2225
State Historical Society of North Dakota	Andrew Clark	Chief Archaeologist	701.328.3574

APPENDIX I

POLICIES AND COMMITMENTS TO LIMIT ENVIROMENTAL IMPACTS

DAKOTA GASIFICATION COMPANY
A BASIN ELECTRIC POWER COOPERATIVE SUBSIDIARY

February 12, 2020

RESPONSIBLE CARE®
OUR COMMITMENT TO SUSTAINABILITY

RESPONSIBLE CARE® POLICY

We, the employees of Dakota Gasification Company, are committed to:

- the safety and health of all employees;
- protecting the environment;
- safely handling and encouraging the safe use of our products;
- following the Responsible Care® Guiding Principles;
- complying with environmental, safety and security laws;
- providing proper training;
- being open and honest; creating and achieving goals; and
- continually improving

Paul Sukut
CEO & General Manager
Basin Electric Power Cooperative

Dale Johnson
VP & Plant Manager
Dakota Gasification Company

Dakota Gasification Company

is proud to participate in the
American Chemistry Council

Responsible Care®

initiative.
We pledge to operate our business according to the following

Guiding Principles

Chemistry is essential to the products and services that help make our lives safer, healthier and better. Through the Responsible Care initiative and the Responsible Care Global Charter our industry has made a worldwide commitment to improve our environmental, health, safety and security performance. Accordingly, we believe and subscribe to the following principles:

- To lead our companies in ethical ways that increasingly benefit society, the economy and the environment.

- To design and develop products that can be manufactured, transported, used and disposed of or recycled safely.

- To work with customers, carriers, suppliers, distributors and contractors to foster the safe and secure use, transport and disposal of chemicals and provide hazard and risk information that can be accessed and applied in their operations and products.

- To design and operate our facilities in a safe, secure and environmentally sound manner.

- To instill a culture throughout all levels of our organizations to continually identify, reduce and manage process safety risks.

- To promote pollution prevention, minimization of waste and conservation of energy and other critical resources at every stage of the life cycle of our products.

- To cooperate with governments at all levels and organizations in the development of effective and efficient safety, health, environmental and security laws, regulations and standards.

- To support education and research on the health, safety, environmental effects and security of our products and processes.

- To communicate product, service and process risks to our stakeholders and listen to and consider their perspectives.

- To make continual progress towards our goal of no accidents, injuries or harm to human health and the environment from our products and operations and openly report our health, safety, environmental and security performance.

- To seek continual improvement in our integrated Responsible Care Management System® to address environmental, health, safety and security performance.

- To promote Responsible Care® by encouraging and assisting others to adhere to these Guiding Principles.

J. A. Johnson

Name

August 21, 2019

Date

American Chemistry Council