CROWLEY | FLECK PLLP
ATTORNEYS

Casey A. Furey
100 West Broadway, Suite 250
P.O. Box 2798
Bismarck, ND 58502-2798
701.223.6585
cfurey@crowleyfleck.com

February 7, 2020

Via Hand Delivery & Electronic Mail

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

In re: Northern Divide Wind, LLC
Northern Divide Wind Energy Center
Northern Divide 345-kV Transmission Line
Case Nos. PU-19-376 & PU-19-377
Our Matter No. 035218-000045

Dear Mr. Kahl:

On behalf of Northern Divide Wind, LLC, enclosed for filing in Case Nos. PU-19-376 & PU-19-377 is Supplemental Information to the Northern Divide Wind Energy Center and the Northern Divide 345-kV Transmission Line Applications. The Supplemental Information filing contains the following:

A. Burke County Conditional Use Permits;
B. Mountrail County Conditional Use Permit;
C. Updated Agency Correspondence;
D. 500-foot Landowner Setback Waiver;
E. Sound & Shadow Flicker Table & Map;
F. Wind Project Map Book (Aerial & Topo);
G. Transmission Line Map Book (Aerial & Topo);
H. Wind Project Architectural History Summary;
I. Wind Project Archaeological Summary;
J. Transmission Line Archaeological Summary;
K. Wind Project Wetlands Report; and,
L. Transmission Line Wetlands Report.

82 PU-19-377 Filed 04/17/2020 Pages: 284
Exhibit 3 - Supplemental information binder
Northern Divide Wind, LLC

85 PU-19-376 Filed 04/17/2020 Pages: 284
Exhibit 3 - Supplemental information binder
Northern Divide Wind, LLC

Sincerely,

CROWLEY FLECK PLLP

Casey A. Furey
CAF/dh
Enc.

cc:	Tracy Davis	(via e-mail)
	Jerry Lein	(via e-mail)
	Brian Schmidt	(via e-mail)
	Mitchell Armstrong	(via e-mail)
	Timothy Dawson	(via e-mail)

BURKE COUNTY, BOWBELLS, NORTH DAKOTA

CONDITIONAL USE REQUIREMENTS

TO ACCOMPANY BUILDING PERMIT NO. 2019-012

NAME OF APPLICANT NORTHERN DIVIDE WIND LLC (WIND FARM)

HAVING REVIEWED THE CONDITIONAL USE WITH RESPECT TO THE PROVISIONS OF ARTICLE 4, SECTION 4 OF THE BURKE COUNTY ZONING REGULATIONS, THE BURKE COUNTY COMMISSIONERS AGREE TO THE ISSUANCE OF A BUILDING PERMIT TO THE ABOVE NAMED APPLICANT, CONTINGENT UPON THE FOLLOWING CONDITIONS:

CONDITIONS - SEE ATTACHED

SHOULD THE APPLICANT VIOLATE ANY OR ALL OF THE ABOVE STATED CONDITIONS, THE BUILDING PERMIT SHALL BE DECLARED INVALID, AND APPROPRIATE ACTION WILL BE INSTITUTED BY THE BURKE COUNTY COMMISSIONERS.

Marla MacBeth on behalf of Richard During 11/19/2019
SIGNATURE OF ZONING ADMINISTRATOR DATE

SEE ATTACHED LIST(S)
SIGNATURE OF LANDOWNER

SIGNATURE OF APPLICANT

8/30/19
DATE

Conditions to Conditional Use Permits to Northern Divide Wind, LLC

1. Development shall be in accordance with the Burke County Zoning Regulations, as well as all applicable County, State, and Federal rules and regulations.
2. Development shall be in accordance with the application materials submitted by Northern Divide Wind, LLC to the Burke County Planning & Zoning Board.
3. Development shall be limited to a maximum of 74 wind turbines, 2 met towers, an electrical substation, and an operations and maintenance building as well as any required infrastructure.
4. The location of the wind turbines shall be as generally shown in the drawings submitted by Northern Divide Wind, LLC, which includes alternate locations for turbine provided by Northern Divide Wind, LLC which shall only be used if a turbine location specified by Northern Divide Wind, LLC will not be constructed and in no event shall the total turbines exceed 74. Any significant change to the location of the turns and/or addition of turbines shall be require approval by the County Commission.
5. The developer shall be responsible for all maintenance associated the turbines and private roads accessing the turbines the operation of the project.
6. The developer shall enter into a road maintenance agreement with Burke County and all affected townships to ensure that all county and township roads shall be repaired or restored to a condition at least equal to the road condition prior to construction of the project.
7. The developer shall be responsible for dust control along the haul routes.
8. Lighting.
    a. Turbines – Except for FAA required lighting, wind turbine generators within the project will not be artificially lighted. Developer shall use new technology as approved by the FAA to reduce nighttime lighting effects.
    b. Substation – Shall limit all lighting after construction on all project components including the substation and switchyard, to the minimum necessary for safety and maintenance purposes in a manner consistent with the rural and scenic character of the location and its natural nighttime conditions.

9. Spray Planes – Developer shall work with local farmers and spray plane operators to ensure that spray planes are able to safely spray agricultural fields within the project boundary.
10. Any water disturbance or diversion shall be in accordance with North Dakota Century Code, Burke County Water Board, and State Water Commission.
11. The developer shall work in concert with law enforcement and emergency responders to facilitate public safety. This includes the provision of additional special rescue equipment and training necessary to accommodate high-angle rescues if necessary for law enforcement and emergency responders.
12. Each turbine must be marked with an identification number large enough to assist identification of the turbine number in an emergency.
13. Prior to wind energy facility construction, the developer shall provide evidence that a wind energy facility map identifying wind turbine locations and numbers have been filed with local fire departments, ambulances, law enforcement, and county emergency managers.
14. Prior to construction of the wind farm, Proof of Approval by the North Dakota Public Service Commission.
15. Prior to wind energy facility construction, the developer shall provide a copy of the approval of the transmission line from the Mountrail County Planning and Zoning Commission and/or Mountrail County Commission.
16. Prior to wind energy facility construction, a copy of the signed decommissioning and restoration bond agreement with the State of North Dakota.
17. Within 90 days of wind energy facility construction, the developer shall submit to the Zoning Administrator an updated and final map or survey demonstrating actual compliance with the requirement and conditions of this conditional use permit.
18. The developer shall report to the Zoning Administrator should the termination or abandonment of leases or easements for the wind energy facilities occur. Reclamation of the sites shall be completed within 180 days of termination or abandonment of leases or easement.
19. Any proposed change of the conditional use permit shall require a hearing before the Burke County Planning and Zoning Board and approval from the Burke County Commission.

20. This permit may be revoked by the County Commission anytime the applicant is in non-compliance with any of the conditions set by the Planning and Zoning Board or the County Commission for the issuance of the permit.
21. Construction of the wind farm shall be commenced within 2 years of the date of the conditional use permit and completion of the wind farm shall be within 4 years of the date of the conditional use permit.

November 19, 2019
Date

Marla MacBeth on behalf of Richard Durrings
Zoning Administrator

BURKE COUNTY, BOWBELLS, NORTH DAKOTA

CONDITIONAL USE REQUIREMENTS

TO ACCOMPANY BUILDING PERMIT NO. 2019-013

NAME OF APPLICANT NORTHERN DIVIDE WIND LLC (TRANSMISSION)

HAVING REVIEWED THE CONDITIONAL USE WITH RESPECT TO THE PROVISIONS OF ARTICLE 4, SECTION 4 OF THE BURKE COUNTY ZONING REGULATIONS, THE BURKE COUNTY COMMISSIONERS AGREE TO THE ISSUANCE OF A BUILDING PERMIT TO THE ABOVE NAMED APPLICANT, CONTINGENT UPON THE FOLLOWING CONDITIONS:

SHOULD THE APPLICANT VIOLATE ANY OR ALL OF THE ABOVE STATED CONDITIONS, THE BUILDING PERMIT SHALL BE DECLARED INVALID, AND APPROPRIATE ACTION WILL BE INSTITUTED BY THE BURKE COUNTY COMMISSIONERS.

on behalf of
Marla MacBeth Richard Durings 11/19/2019
SIGNATURE OF ZONING ADMINISTRATOR DATE

SEE ATTACHED LIST(S)
SIGNATURE OF LANDOWNER

SIGNATURE OF APPLICANT

8/30/19
DATE

2018-013

BURKE COUNTY, NORTH DAKOTA

DATE: 6-13-2018

ZONING REQUEST APPLICATION

APPLICANT NAME: BURKE WIND, LLC, SUBSIDIARY OF NEXTERA ENERGY RESOURCES, LLC

ADDRESS: 700 UNIVERSE BLVD., JUNO BEACH, FL 33408

EMAIL ADDRESS: CLAY.CAMERON@NEXTERAENERGY.COM TELEPHONE NUMBER: 561-267-5044

OWNER (IF OTHER THAN APPLICANT):

NAME: _____

ADDRESS: _____

TYPE: _____ BUILDING PERMIT _____ AMENDMENT $250.00

__X__ CONDITIONAL USE $250.00 _____ MAP

_____ VARIANCE $250.00 _____ RENEWAL (EXTENSION)

LEGAL DESCRIPTION OF PROPERTY: SEE ATTACHED DOCUMENTATION FOR LEGAL DESCRIPTIONS

DESCRIPTION OF REQUEST:

Burke Wind, LLC (Burke Wind) is submitting this application for a Conditional Use Permit to site, construct and operate the Burke Wind Energy Center Transmission Line (Project). The proposed project is located in Burke and Mountrail Counties, North Dakota and will consist of a 35-mile-long, 345 kV transmission line, 18 miles of which will be placed and permitted within Burke County.

EXISTING USE OF PROPERTY:

AGRICULTURAL

LOT SIZE _____ SETBACKS _____

LOT WIDTH _____ SIDEYARD _____

A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.

APPROXIMATE VALUE OF STRUCTURE(S) $20 MILLION

PROJECTED VOLUME FOR GRAVEL PITS: _____

Attached agreements with application

SIGNATURE(S) OF LANDOWNER(S)

Clay Cameron

SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN Approved

Debbie Kuryn 9/4/2018

SIGNATURE OF ZONING ADMINISTRATOR DATE

BURKE COUNTY, BOWBELLS, NORTH DAKOTA

CONDITIONAL USE REQUIREMENTS

TO ACCOMPANY BUILDING PERMIT NO. 2018-013

NAME OF APPLICANT BURKE WIND, LLC

HAVING REVIEWED THE CONDITIONAL USE WITH RESPECT TO THE PROVISIONS OF ARTICLE 4, SECTION 4 OF THE BURKE COUNTY ZONING REGULATIONS, THE BURKE COUNTY COMMISSIONERS AGREE TO THE ISSUANCE OF A BUILDING PERMIT TO THE ABOVE NAMED APPLICANT, CONTINGENT UPON THE FOLLOWING CONDITIONS:

SHOULD THE APPLICANT VIOLATE ANY OR ALL OF THE ABOVE STATED CONDITIONS, THE BUILDING PERMIT SHALL BE DECLARED INVALID, AND APPROPRIATE ACTION WILL BE INSTITUTED BY THE BURKE COUNTY COMMISSIONERS.

Debbie Kunyn — 9/4/2018

SIGNATURE OF ZONING ADMINISTRATOR — DATE

As attached agreements — Clay Cameron — 5/30/18

SIGNATURE OF LANDOWNER — SIGNATURE OF APPLICANT — DATE

2019-014

BURKE COUNTY, NORTH DAKOTA

DATE: 9-10-2019

ZONING REQUEST APPLICATION

APPLICANT NAME: NORTHERN DIVIDE WIND, LLC

ADDRESS: 700 UNIVERSE BLVD, JUNO BEACH FL 33408

EMAIL ADDRESS: CLAY.CAMERON@NEE.COM

TELEPHONE NUMBER: (561) 267-5044

OWNER (IF OTHER THAN APPLICANT):

NAME: RODNEY OLSON

ADDRESS: 546 28TH AVENUE SW, MINOT, ND 58701

TYPE: _____ BUILDING PERMIT

_____ CONDITIONAL USE $250.00

_____ VARIANCE $250.00

_X_ AMENDMENT $250.00 AG → IND

_____ MAP

_____ RENEWAL (EXTENSION)

LEGAL DESCRIPTION OF PROPERTY: E1/2 E1/2 SE1/4 Section 17, Twp 161N Rng 93W

DESCRIPTION OF REQUEST:

REZONING OF (10) ACRES TO PERMANENT INDUSTRIAL FOR A COLLECTION SUBSTATION AND OPERATIONS & MAINTENANCE BUILDING.

EXISTING USE OF PROPERTY: AGRICULTURAL

LOT SIZE _____ SETBACKS _____

LOT WIDTH _____ SIDEYARD _____

A SKETCH SHOWING ALL PROPOSED STRUCTURES AND THEIR LOCATIONS ON THE LOT MUST BE ATTACHED.

APPROXIMATE VALUE OF STRUCTURE(S) $_____

PROJECTED VOLUME FOR GRAVEL PITS: _____

Rodney D Olson
SIGNATURE(S) OF LANDOWNER(S)

Donna B. Olson
SIGNATURE(S) OF APPLICANT(S)

ACTION TAKEN Approved

Marla MacBeth on behalf of Richard Durings
SIGNATURE OF ZONING ADMINISTRATOR

DATE 11/19/2019

MOUNTRAIL COUNTY PLANNING & ZONING

PO BOX 248
STANLEY ND 58784

442420
County Recorder
Mountrail County
Stanley ND
Page 1 of 2

County Recorder, Mountrail County ND. **442420**
I certify that this instrument was filed and recorded.
Melissa Vachal, County Recorder
By Melissa Vachal

Fee $20.00
12/4/2019 10:36 AM

COUNTY RECORDER
MOUNTRAIL COUNTY
STATE OF NORTH DAKOTA

CONDITIONAL USE PERMIT
MOUNTRAIL COUNTY PLANNING & ZONING

Name of Applicant: Northern Divide Wind LLC/Burke Wind LLC, 700 Universe Blvd Juno, FL 33408

Having reviewed the conditional use with the respect to provision of Article IV Section IV of the Mountrail County Zoning Ordinance, the Mountrail County Planning & Zoning Board agree to the issuance of a conditional use permit to the above named applicants contingent upon the following conditions:

EXCERPTS FROM THE SEPTEMBER 23, 2019 PLANNING AND ZONING MINUTES

Motion: Moved by Commissioner Hollekim, seconded by Commissioner Borud to approve the zoning request filed by Northern Divide Wind LLC/Burke Wind LLC for a conditional use permit extension for a one year term to allow for placement of a 345-kilovolt electrical transmission line on agricultural land beginning in Burke County traveling south through Powers Lake Township (Township 158 North, Range 93 West), Sorkness Township (Township 157 North, Range 93 West), west through White Earth Township (Township 157 North, Range 94 West) and ending at the Tande Substation (Section 29, Township 157 North, Range 94 West) for a total route distance in Mountrail County of 18.3 miles, more or less, as Northern Divide Wind LLC/Burke Wind LLC has met all criteria as set forth in Article IV, Section IV of the Mountrail County Zoning Ordinance and is further contingent upon Northern Divide Wind LLC/Burke Wind LLC complying with all other terms and conditions of the Mountrail County Zoning Ordinance. Approval also allows for the company name change for the extension of the conditional use permit. Upon roll call, all present voted yes. Motion carried.

Should the applicants violate any or all of the above stated listed conditions, the conditional use permit shall be declared invalid and appropriate action will be instituted by the Mountrail County Planning & Zoning Commission.

Said applicants received an excerpt of the Mountrail County Zoning Ordinance.

Mountrail County Planning & Zoning Board

11-25-19
Charlie Sorenson, Chairman Date
Board of Mountrail County Commissioners

Northern Divide Wind LLC/Burke Wind LLC
Date November 19, 2019

STATE OF NORTH DAKOTA)
) §
COUNTY OF MOUNTRAIL)

HEIDI KORY
Notary Public
State of North Dakota
My Commission Expires August 7, 2023

On this 25 day of November, **2019, Charlie Sorenson** personally appeared before me known to me to be the person described in and who executed the within and foregoing instrument and acknowledge that he executed the same.

Heidi Kory

My Commission expires 8/7/23

STATE OF ~~NORTH DAKOTA~~ Florida)
) §
COUNTY OF ~~MOUNTRAIL~~ Palm Beach)

On this 19 day of November, **2019, Northern Divide Wind LLC/Burke Wind LLC** personally appeared before me known to me to be the person described in and who executed the within and foregoing instrument and acknowledge that he executed the same.

My Commission expires ____

NOTARY PUBLIC
Kim L. Otto
Notary Public - State of Florida
My Commission # GG 939840

PLANNING & ZONING BOARD
COUNTY OF MOUNTRAIL
PO Box 248
Stanley, North Dakota 58784-0248
(701) 628-2909
lizh@co.mountrail.nd.us

Board Members:

ROGER HOVDA
ARLO BORUD
THOMAS BIERI
BILL KLUG
LINDA WIENBAR
GARY WEISENBERGER
TRUDY RULAND
JOAN HOLLEKIM
CHARLIE SORENSON

December 7, 2018

Clay Cameron
Burke Wind, LLC
700 Universe Blvd
Juno Beach, FL 33408

Re: Conditional Use Permit
Powers Lake Township, Sorkness Township and White Earth Township.

Dear Mr. Cameron:

Enclosed you will find your Conditional Use Permit that was approved by the Mountrail County Planning and Zoning Board at our October 22, 2018 meeting and recorded at Mountrail County Recorder's office on November 16, 2018. We received the certified copy today.

The enclosed copy is for **your** records. If you have any questions or concerns, please feel free to email or call me at 701-628-2909.

Sincerely,

Liz Hollowell

Liz Hollowell
Administrative Assistant
Planning / Zoning

Enc. (1)

MOUNTRAIL COUNTY PLANNING & ZONING
PO BOX 248
STANLEY ND 58784

CONDITIONAL USE PERMIT
MOUNTRAIL COUNTY

Name of Applicant: Burke Wind, LLC 700 Universe Blvd Juno Beach, FL 33408

Legal Description: Beginning in Burke County traveling south through **Powers Lake Township (Township 158 North, Range 93 West), Sorkness Township (Township 157 North, Range 93 West),** west through **White Earth Township (Township 157 North, Range 94 West)** and ending at the **Tande Substation (Section 29, Township 157 North, Range 94 West)** for a total route distance in Mountrail County of 18.3 miles, more or less

Having reviewed the applied for conditional use with respect to the provisions of Article IV, Section IV of the Mountrail County Zoning Ordinance, the Mountrail County Planning Commission agrees to the issuance of a conditional use permit to the above named applicant, contingent upon the following conditions:

EXCERPT FROM THE OCTOBER 22, 2018 PLANNING & ZONING MINUTES

Motion: Moved by Commissioner Borud, seconded by Commissioner Hovda to approve the zoning request filed by Burke Wind, LLC for a conditional use permit to allow for placement of a 345-kilovolt electrical transmission line on agricultural land beginning in Burke County traveling south through **Powers Lake Township (Township 158 North, Range 93 West), Sorkness Township (Township 157 North, Range 93 West),** west through **White Earth Township (Township 157 North, Range 94 West)** and ending at the **Tande Substation (Section 29, Township 157 North, Range 94 West)** for a total route distance in Mountrail County of 18.3 miles, more or less as Burke Wind, LLC has met all criteria as set forth in Article IV, Section IV of the Mountrail County Zoning Ordinance and is further contingent on Burke Wind, LLC complying with all other terms and conditions of the Mountrail County Zoning Ordinance. Upon roll call, all present voted yes. Motion carried.

Should the applicant violate any or all of the above stated listed conditions, the conditional use shall be declared invalid and appropriate action will be instituted by the Mountrail County Planning Commission.

Said applicant received an excerpt of the Mountrail County Zoning Ordinance.

11-16-18
Charlie Sorenson, Chairman Date
Board of Mountrail Planning Commission

11.9.18
John Di Donato Date
Vice-President, Burke Wind, LLC

STATE OF NORTH DAKOTA)
) §
COUNTY OF MOUNTRAIL)

STATE OF Florida)
) §
COUNTY OF Palm Beach)

On this 9th day of November, 2018, **John Di Donato, Vice President, on the behalf of Burke Wind LLC** personally appeared before me, known to me to be the person described in and who executed the within and foregoing instrument and acknowledge that he executed the same.

Kim L. Otto
Notary Public - State of Florida
My Commission # GG 939840
Expires March 28, 2020

My Commission expires _____

CERTIFICATION

I, John Di Donato, *Vice President*, a duly authorized agent of Burke Wind, LLC that has authority of bind the company in these matters, do hereby certify under oath:

1. That Burke Wind, LLC will comply with all applicable provisions of the Mountrail County Zoning Ordinances and Conditional Use Permit.

2. That Burke Wind, LLC has signed easements from all landowners for a 345-kilovolt electrical transmission line ending at the Basin Electric Power Cooperative Tande 345-kV substation.

Dated at Juno Beach, Florida this 1 day of November, 2018
City State Month

BURKE WIND, LLC

By: _____

Name: John Di Donato

Title: Vice President

ACKNOWLEDGEMENT

STATE OF Florida)

) §

COUNTY OF Palm Beach)

On this 1st day of November 2018, John Di Donato, on behalf of **Burke Wind, LLC** personally appeared before me, known to me to be the person described in and who executed the within and foregoing instrument and acknowledge that he executed the same.

(SEAL)

NOTARY PUBLIC
Kim L. Otto
Notary Public - State of Florida
My Commission # 44 939840
Expires March 28, 2020

_____
Notary Public

437954

County Recorder
Mountrail County
Stanley ND

COUNTY RECORDER
MOUNTRAIL COUNTY
STATE OF NORTH DAKOTA

County Recorder, Mountrail County ND. **437954**

I certify that this instrument was filed and recorded.

Melissa Vachal, County Recorder

By Melissa Vachal

Fee $0.00
11/16/2018 12:30 PM

Memorandum

To	North Dakota Public Service Commission
Subject	Case Numbers PU-19-376 and PU-19-377 Northern Divide Wind Energy Center and Northern Divide 345-kV Transmission Line Update to Applications Table 6-1 – Summary of Agency Comments
From	Northern Divide Wind, LLC
Date	February 3, 2020

Northern Divide Wind, LLC (Northern Divide Wind) submits to the North Dakota Public Service Commission (Commission) an update to the Northern Divide Wind Energy Center and the Northern Divide 345-kV Transmission Line Applications Table 6-1 – Summary of Agency Comments. Following the filing of the Applications to the Commission, Northern Divide Wind has had additional correspondence with the following agencies.

Table 6-1 Addendum Summary of Agency Comments – Nov. 21, 2019 to Feb. 3, 2020

Agency	Comment Date	Comment Summary
Office of the Assistant Secretary of Defense	Nov. 21, 2019	The Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DoD) an informal review of the Wind Energy Center and Transmission Line. The results indicated that the Wind Energy Center and Transmission Line will have minimal impact on military operations conducted in the area.
North Dakota Game and Fish Department (NDGFD) and U.S. Fish and Wildlife Service (USFWS)	Dec. 11, 2019	Northern Divide Wind informed the NDGFD and USFWS that the Commission has docketed the Wind Energy Center and Transmission Line in case numbers PU-19-376 and PU-19-377, respectively and the Applications are available online. Northern Divide Wind mentioned that Appendix B of each Application contains the wildlife reports and speculated a mid-March hearing.
Department of Defense	Jan. 9, 2020	The DoD Screening tool's military operations results indicated that the southwest corner of the Transmission Line falls within the confines of Military Training Route IR678 and provided a point of contact. Northern Divide Wind telephoned the point of contact. The point of contact indicated there is no concern for structures under 200 feet in height and thus the Transmission Line would have no effect on military operations.
State Historical Society of North Dakota (SHSND)	Jan. 24, 2020	The North Dakota State Historic Preservation Office does not require a viewshed analysis for the Transmission Line (NDSHPO Ref #19-0574).

Attachments:

1. Office of the Assistant Secretary of Defense – Nov. 21, 2019 Letter
2. State Historical Society of North Dakota – Jan. 24, 2020 Letter

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

SUSTAINMENT

November 21, 2019

Lindsey Churchill
Environmental Project Manager, Environment
AECOM

Dear Dr. Churchill,

As requested, the Military Aviation and Installation Assurance Siting Clearinghouse coordinated within DoD an informal review of the Northern Divide Wind Energy Center and Transmission Line Project. The results of our review indicated that the dual wind and transmission project, located in Burke County, North Dakota, as proposed, will have minimal impact on military operations conducted in the area.

Please note that this informal review by the DoD Military Aviation and Installation Assurance Siting Clearinghouse does not constitute an action under 49 United States Code Section 44718 and that the DoD is not bound by the conclusion arrived at under this informal review. To expedite our review in the Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process, please add the project number 2019-09-D-DEV-10 in the comments section of the filing. If you have any questions, please contact me at steven.j.sample4.civ@mail.mil or at 703-571-0076.

Sincerely,

Steven J. Sample
Deputy Director
Military Aviation and Installation
Assurance Siting Clearinghouse

January 24, 2020

Melinda McCarthy
AECOM
1000 E Calgary Ave, Ste 1
Bismarck, ND 58503

Dear Ms. McCarthy,

Pursuant to our conversation in my office the other day, this letter is to acknowledge the North Dakota State Historic Preservation Office does not require a viewshed analysis for the project NDSHPO Ref #19-0574: Northern Divide 345kV Transmission Line in Burke and Mountrail Counties, ND provided it takes place in the location and manner described in the documentation.

Thank you for the opportunity to review this project. If you have any questions please contact Lorna Meidinger, Historic Preservation Specialist at (701) 328-2089, e-mail lbmeidinger@nd.gov

Sincerely,

for Claudia J. Berg
State Historic Preservation Officer
(North Dakota)

19-0574

NEXTERA ENERGY RESOURCES
ATTN: CORLETT JAMES
700 UNIVERSE BOULEVARD
JUNO BEACH FL 33408

437285
County Recorder
Mountrail County
Stanley ND
Page 1 of 4

COUNTY RECORDER
MOUNTRAIL COUNTY
STATE OF NORTH DAKOTA

County Recorder, Mountrail County ND. **437285**
I certify that this instrument was filed and recorded.
Melissa Vachal, County Recorder
By Melissa Vachal
Fee $20.00
9/27/2018 3:01 PM

SETBACK WAIVER

THIS SETBACK WAIVER ("**Agreement**") is granted this 25th day of June, 2018 ("**Effective Date**") by Michael Wiedmer, Sr. and Tracie Wiedmer, a/k/a Tracie Forester, husband and wife, whose address for notices is P.O. Box 336, Tioga, ND 58852 ("**Grantor**") and Burke Wind, LLC, a Delaware limited liability company, its successors and assigns, whose address for notices is: 700 Universe Blvd, Attn: Land Services, Juno Beach, FL 33408 ("**Grantee**").

Grantor owns property in Mountrail County, North Dakota, described on the attached **Exhibit A** and incorporated by reference ("**Property**"). Grantee has rights to land in the vicinity of the Property for the construction, operation and maintenance of transmission facilities. For good and valuable consideration, the receipt of which is hereby acknowledged, Grantor hereby waives any and all benefits of North Dakota Century Code Section 49-22-05.1 and North Dakota Administrative Code Section 69-06-08-02, and all amendments thereto or replacements thereof, which provide that energy conversion facilities and transmission facilities located within 500 feet of a residence must be designated as an avoidance area; and agrees that such facilities may be constructed at the location as depicted on a map provided to Grantor, which facilities are less than 500 feet from Grantor's rural residence. The term of this Agreement shall commence on the Effective Date and shall continue and remain in full force and effect with respect to all and each part of the Property until all transmission facilities are removed from the vicinity of the Property. Grantor represents that Grantor is the owner of the rural residence within the meaning of North Dakota Century Code Section 49-22-05.1 and North Dakota Administrative Code Section 69-06-08-02, and that the further consent of any third parties is not required. Grantor further acknowledges that the waiver given hereby is a covenant running with the Property and applies to succeeding and subsequent owners of the Property described herein, and is intended for the benefit of Burke Wind, LLC and its successors and assigns. Grantor consents to Grantee recording this Agreement in the Office of the Mountrail County Recorder to provide notice of this Agreement to succeeding and subsequent owners of the Property. This Agreement may be executed by the parties hereto in one or more counterparts, all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, Grantor has executed this Agreement on the date set forth below.

Grantor:

Michael Wiedmer, Sr.

Tracie Wiedmer, a/k/a Tracie Forester

ACKNOWLEDGMENT

STATE OF NORTH DAKOTA)
) SS.
COUNTY OF WILLIAMS)

The forgoing instrument was acknowledged before me this 20th day of June, 2018, by Michael Wiedmer, Sr. and Tracie Wiedmer, a/k/a Tracie Forester.

My Commission expires: _____

Notary Public

TARA M FOX
Notary Public
State of North Dakota
My Commission Expires June 23, 2020

IN WITNESS WHEREOF, Grantee has executed this Agreement on the date set forth below.

Grantee:

Burke Wind, LLC,
a Delaware limited liability company

By: _____
Jason Utton, Authorized Representative

STATE OF FLORIDA)
) SS.
COUNTY OF PALM BEACH)

The forgoing instrument was acknowledged before me this 25 day of Jun, 2018, by Jason Utton, as Authorized Representative of Burke Wind, LLC, a Delaware limited liability company, who is personally known to me who subscribed to the foregoing instrument and acknowledged that he executed the same on behalf of said limited liability company and that he was duly authorized to do so.

(SEAL)

KIM L. OTTO
MY COMMISSION # FF 939840
EXPIRES: March 28, 2020
Bonded Thru Notary Public Underwriters

_____
Name:_____
Notary Public, State of Florida
My Commission Expires:_____

AFTER RECORDING RETURN TO

Dru Roscoe, Esq.
NextEra Energy Resources, LLC
700 Universe Blvd. (LAW/JB)
Juno Beach, FL 33408

437285
County Recorder
Mountrail County
Stanley ND
Page 3 of 4

EXHIBIT A

Legal Description of Property

Outlot 1 of South Half of the Northeast Quarter (S½NE¼) of Section 29, Township 157 North, Range 94 West of the 5th P.M., Mountrail County, North Dakota.

Table 1. Northern Divide Wind Energy Center - Shadow Flicker and Acoustic Assessment Results - Participating Landowners

Receptor ID	County	Predicted Shadow Flicker Hours per Year[1]	Predicted Sound Level (dBA)[2,3]	Nearest WTG	
				ID	Distance (ft)[4]
R2	Burke	0	47	8	2,365
R16	Burke	22	48	17	2,040
R21	Burke	3	41	3	3,783
R23	Burke	1	46	30	2,812
R30	Burke	7	47	43	2,736
R34	Burke	12	48	50	2,677
R39	Burke	10	47	Alt3	2,732
R42	Burke	5	41	74	2,757
R51	Burke	0	40	1	2,713
R58	Burke	7	41	68	3,712
R627	Burke	0	26	73	14,465
R641	Burke	0	18	70	16,872
R645	Burke	0	32	51	9,207
R646	Burke	0	36	58	6,660
R655	Burke	0	42	3	4,062
R657	Burke	0	43	35	2,853
R659	Burke	0	24	74	13,877
R696	Burke	0	26	1	10,245
R722	Burke	0	25	70	10,539
R724	Burke	0	21	70	14,701
R1029	Burke	0	32	70	6,358
R1033	Burke	0	27	51	14,384
R1034	Burke	0	27	58	14,866
R1068	Burke	0	22	70	13,268
R1069	Burke	0	27	74	11,095

1. Values presented herein reflect the “With Alternates” data contained within Application Appendix B4
2. Values presented herein reflect the “With Alternates” data contained within Application Appendix B3
3. To consider sound level compliance with both Burke County Zoning Regulations (measured at a 50-foot distance from the receptor) and N.D.Admin Code 69-06-08-01 (measured at a 100-foot distance from the receptor), the presented sound level is the highest predicted noise level at a minimum distance of 100 feet from the receptor in virtually any direction.
4. Distances measured from the receptor center point to the nearest wind turbine, values not intended for setback evaluation.

Table 2. Northern Divide Wind Energy Center - Shadow Flicker and Acoustic Assessment Results - Non-Participating Parcels, Participating Landowner

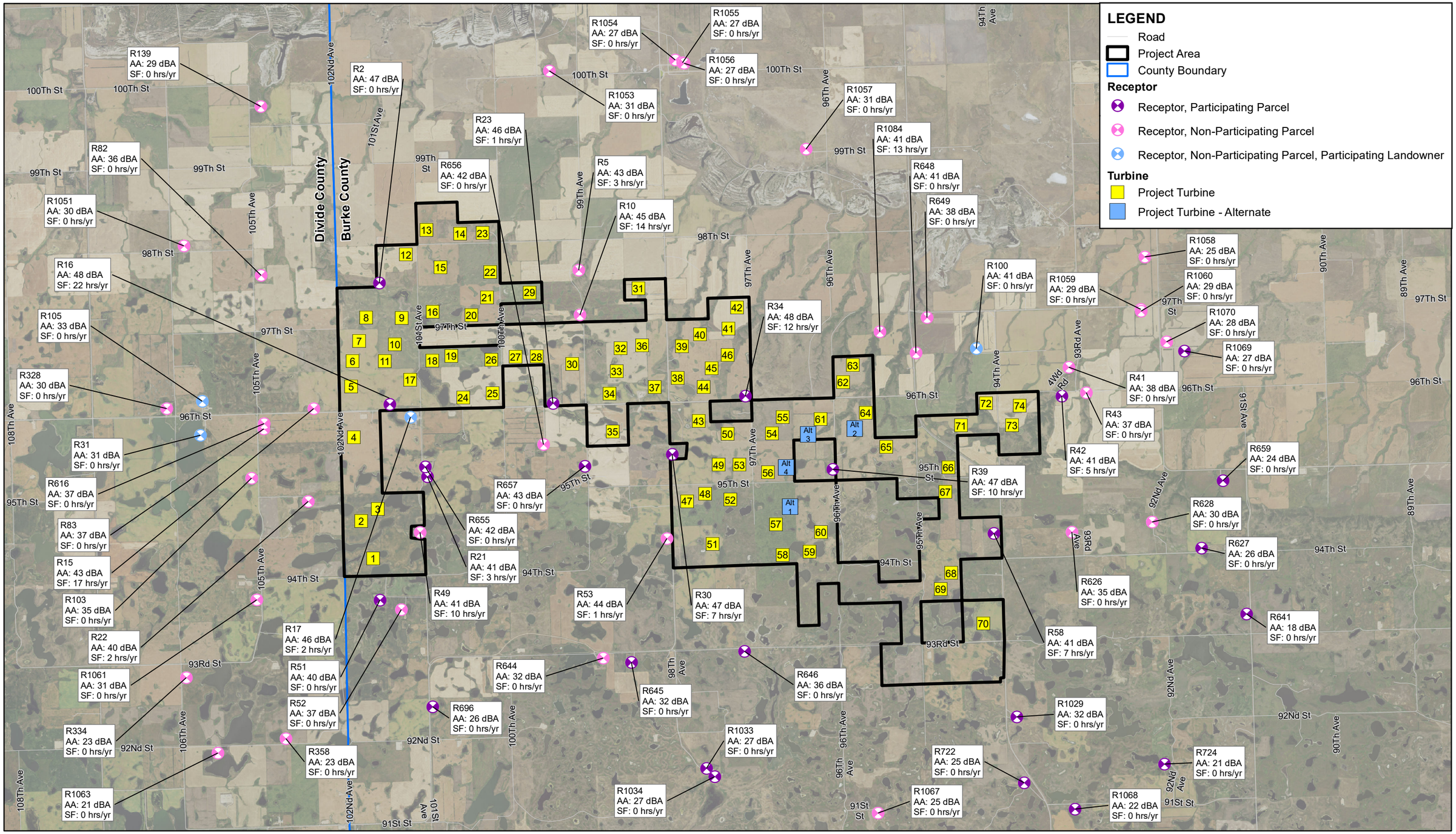
Receptor ID	County	Predicted Shadow Flicker Hours per Year[1]	Predicted Sound Level (dBA)[2,3]	Nearest WTG	
				ID	Distance (ft)[2]
R17	Burke	2	46	17	2,389
R31	Divide	0	31	4	9,825
R100	Burke	0	41	72	3,537
R105	Divide	0	33	5	9,590

1. Values presented herein reflect the “With Alternates” data contained within Application Appendix B4
2. Values presented herein reflect the “With Alternates” data contained within Application Appendix B3
3. To consider sound level compliance with both Burke County Zoning Regulations (measured at a 50-foot distance from the receptor) and N.D.Admin Code 69-06-08-01 (measured at a 100-foot distance from the receptor), the presented sound level is the highest predicted noise level at a minimum distance of 100 feet from the receptor in virtually any direction.
4. Distances measured from the receptor center point to the nearest wind turbine, values not intended for setback evaluation.

Table 3. Northern Divide Wind Energy Center - Shadow Flicker and Acoustic Assessment Results - Non-Participating Landowners

Receptor ID	County	Predicted Shadow Flicker Hours per Year[1]	Predicted Sound Level (dBA)[2,3]	Nearest WTG	
				ID	Distance (ft)[2]
R5	Burke	3	43	29	3,453
R10	Burke	14	45	30	3,191
R15	Divide	17	43	5	2,806
R22	Divide	2	40	2	3,625
R41	Burke	0	38	74	3,983
R43	Burke	0	37	74	4,347
R49	Burke	10	41	3	3,101
R52	Burke	0	37	1	3,754
R53	Burke	1	44	47	2,725
R82	Divide	0	36	8	7,254
R83	Divide	0	37	4	5,801
R103	Divide	0	35	4	7,053
R139	Divide	0	29	13	13,249
R328	Divide	0	30	5	11,913
R334	Divide	0	23	1	14,198
R358	Divide	0	23	1	12,826
R616	Divide	0	37	4	5,812
R626	Burke	0	35	73	7,846
R628	Burke	0	30	73	10,902
R644	Burke	0	32	51	10,137
R648	Burke	0	41	63	4,120
R649	Burke	0	38	63	5,630
R656	Burke	0	42	35	4,523
R1051	Divide	0	30	8	12,548
R1053	Burke	0	31	23	11,239
R1054	Burke	0	27	31	14,810
R1055	Burke	0	27	31	14,726
R1056	Burke	0	27	31	14,693
R1057	Burke	0	31	42	11,059
R1058	Burke	0	25	74	12,444
R1059	Burke	0	29	74	9,911
R1060	Burke	0	29	74	9,851
R1061	Divide	0	31	1	7,913
R1063	Divide	0	21	1	15,948
R1067	Burke	0	25	70	13,903
R1070	Burke	0	28	74	10,250
R1084	Burke	13	41	63	2,743

1. Values presented herein reflect the “With Alternates” data contained within Application Appendix B4
2. Values presented herein reflect the “With Alternates” data contained within Application Appendix B3
3. To consider sound level compliance with both Burke County Zoning Regulations (measured at a 50-foot distance from the receptor) and N.D.Admin Code 69-06-08-01 (measured at a 100-foot distance from the receptor), the presented sound level is the highest predicted noise level at a minimum distance of 100 feet from the receptor in virtually any direction.
4. Distances measured from the receptor center point to the nearest wind turbine, values not intended for setback evaluation.



Source: AECOM, 2019. 2018 Aerial Imagery from North Dakota state agencies & ND GIS Hub.

Definitions: AA = Acoustic Assessment Result; SF = Shadow Flicker Assessment Result

Values presented herein reflect the "With Alternates" data contained within Application Appendix B3 & B4

1.1 0 1.1 Miles

Scale: 1:70,648 1 in = 1.1 miles

FIGURE 1

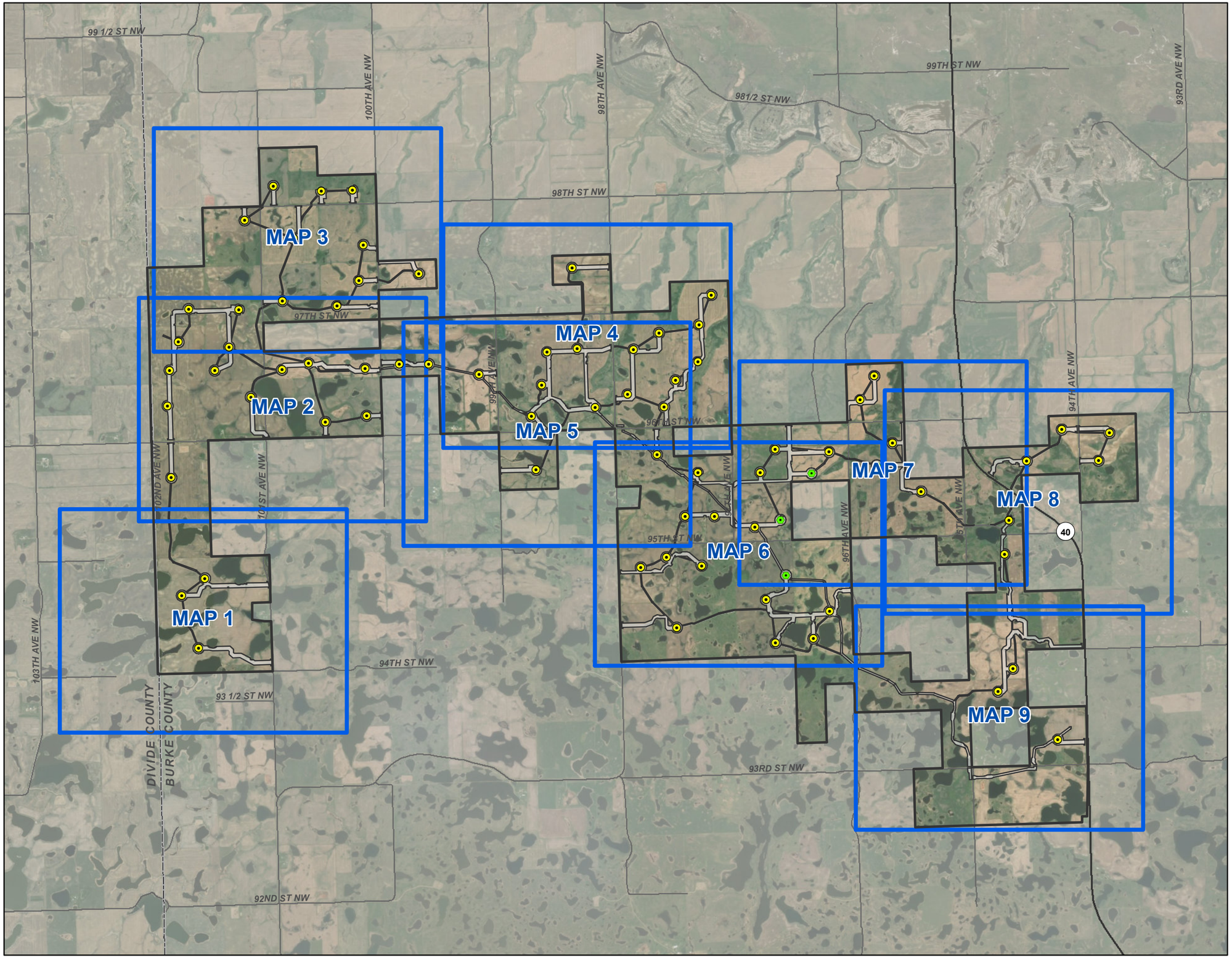
PROJECT OVERVIEW - RECEPTOR DETAIL

NORTHERN DIVIDE WIND ENERGY CENTER

DATE: 1/21/2020

AECOM

Path: \\ussdg1fp001.na.aecomnet.com\LaJolla\Resources\EMP\NOISE\!PROJECTS\NextEra Northern Divide\4 WORKING DRAWINGS & GIS\4_2 DATA FOR GIS\November 2019 Figure Data\MXD\NorthernDivide_ReportFigure_NoLandowner.mxd, hannah.duffy, 1/21/2020, 1:41:49 PM



Legend

- County Road
- State/Federal Highway
- County Boundary

Site Plan

- Primary Turbine
- Alternative Turbine
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

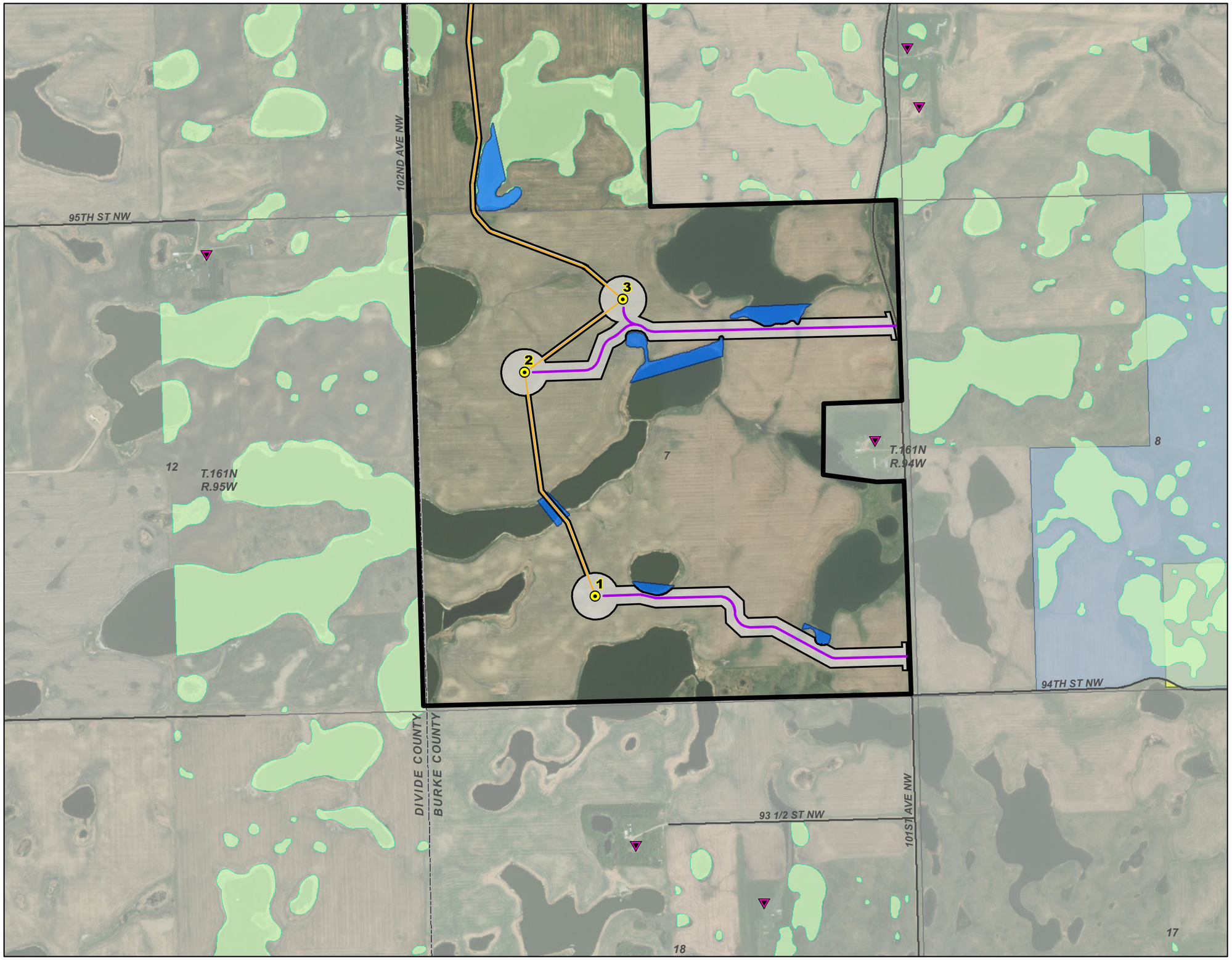
0 0.5 1 Miles

Site Plan Detail Index Map (Aerial)

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



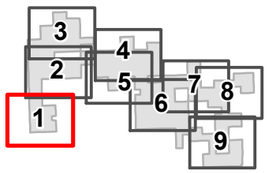
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

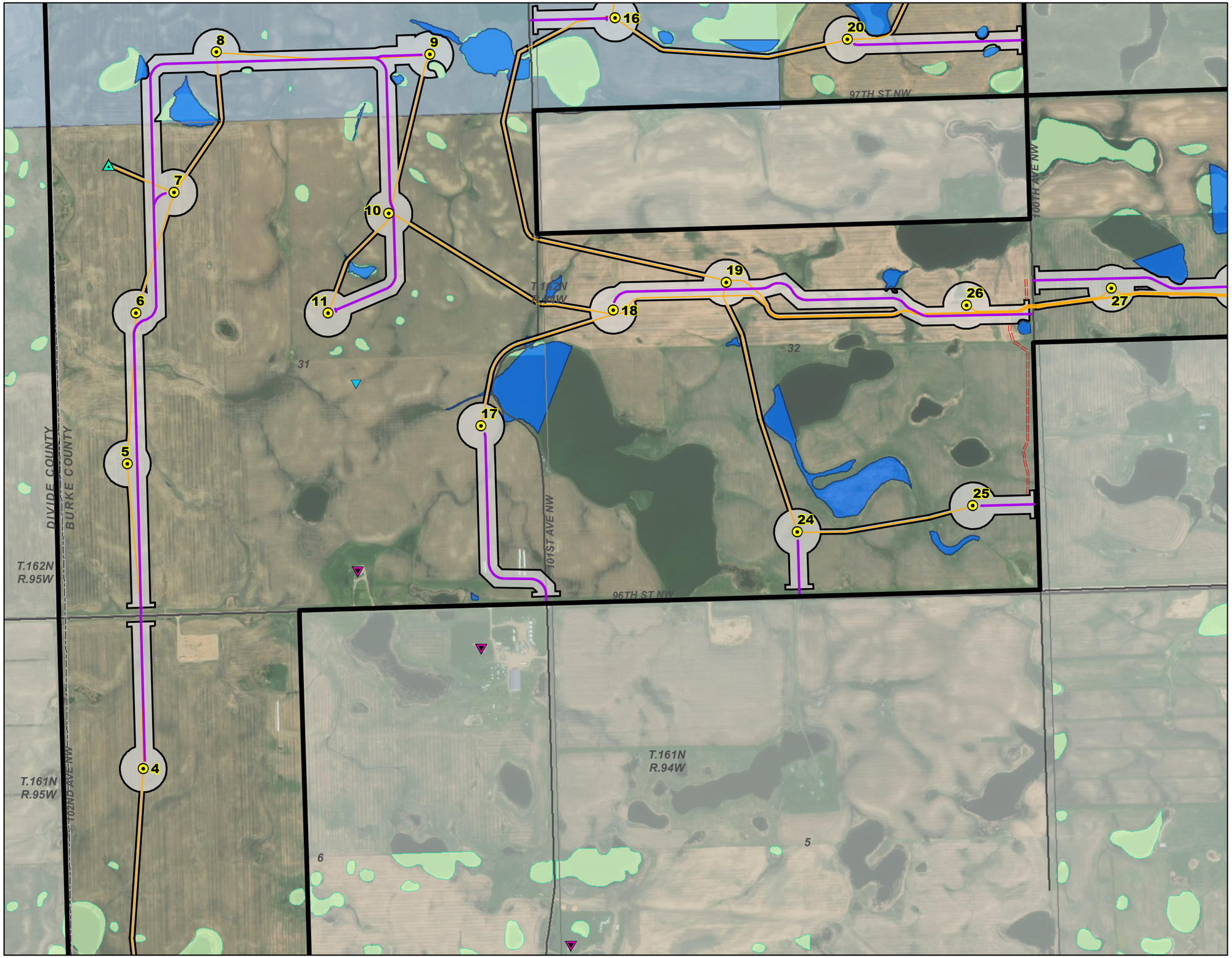


0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 1 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



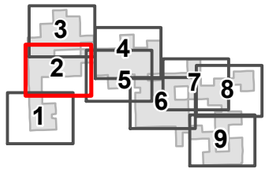
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Permanent MET Tower
- Temporary MET Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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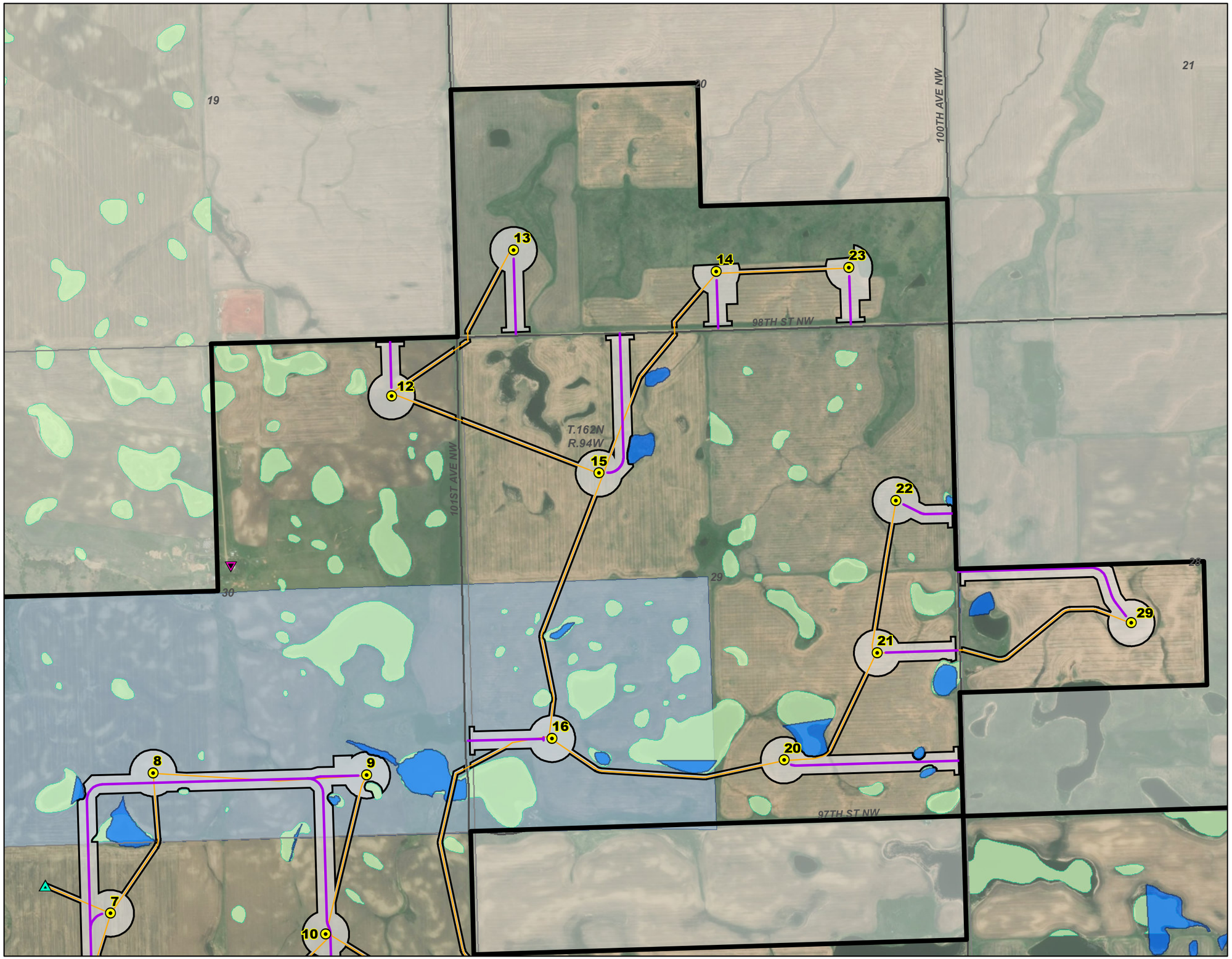
Site Plan Detail (Aerial)
Map 2 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



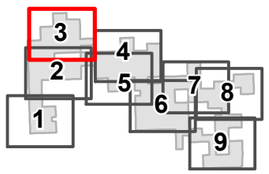
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Permanent MET Tower
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



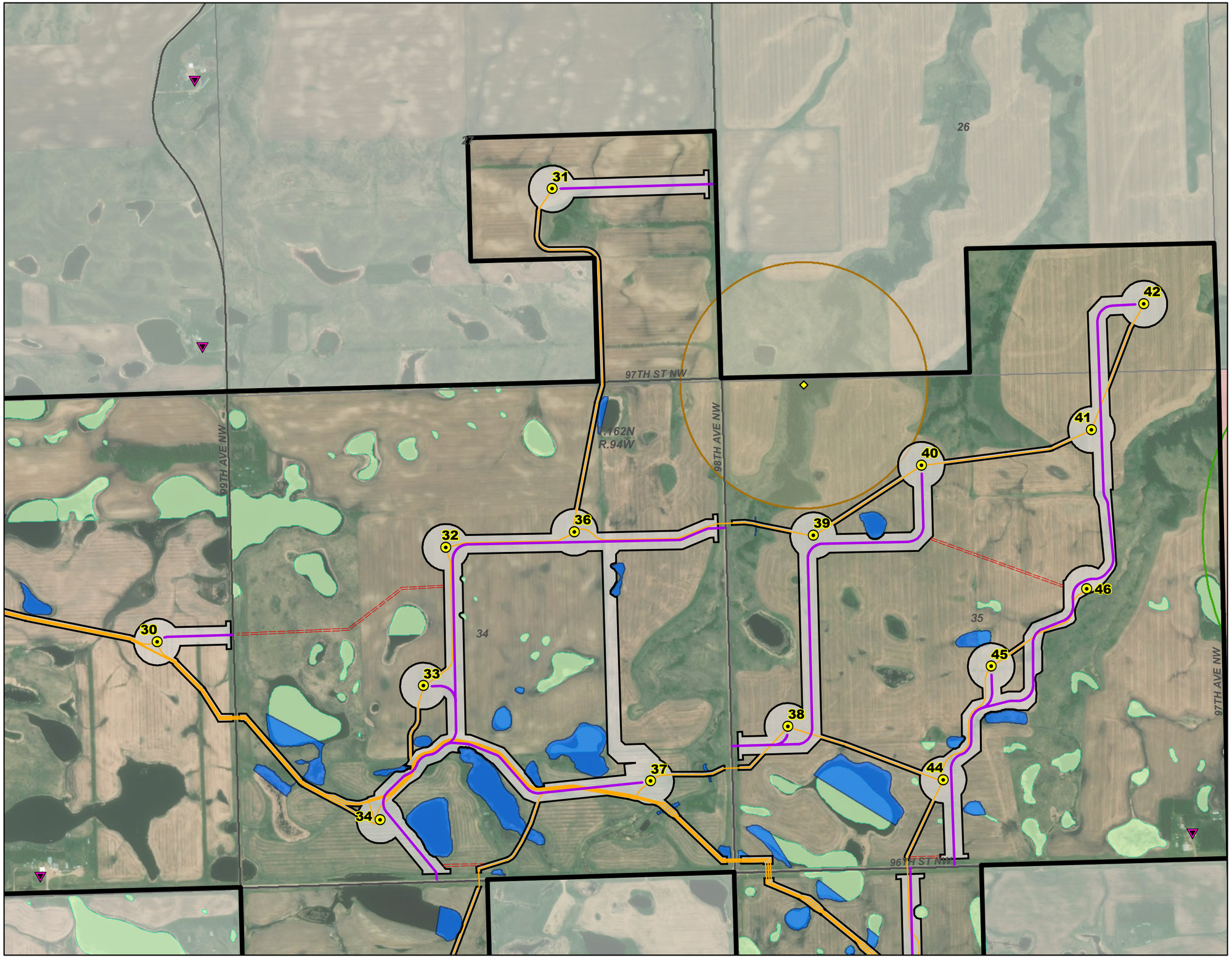
0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 3 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



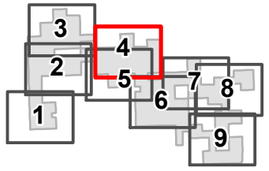
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



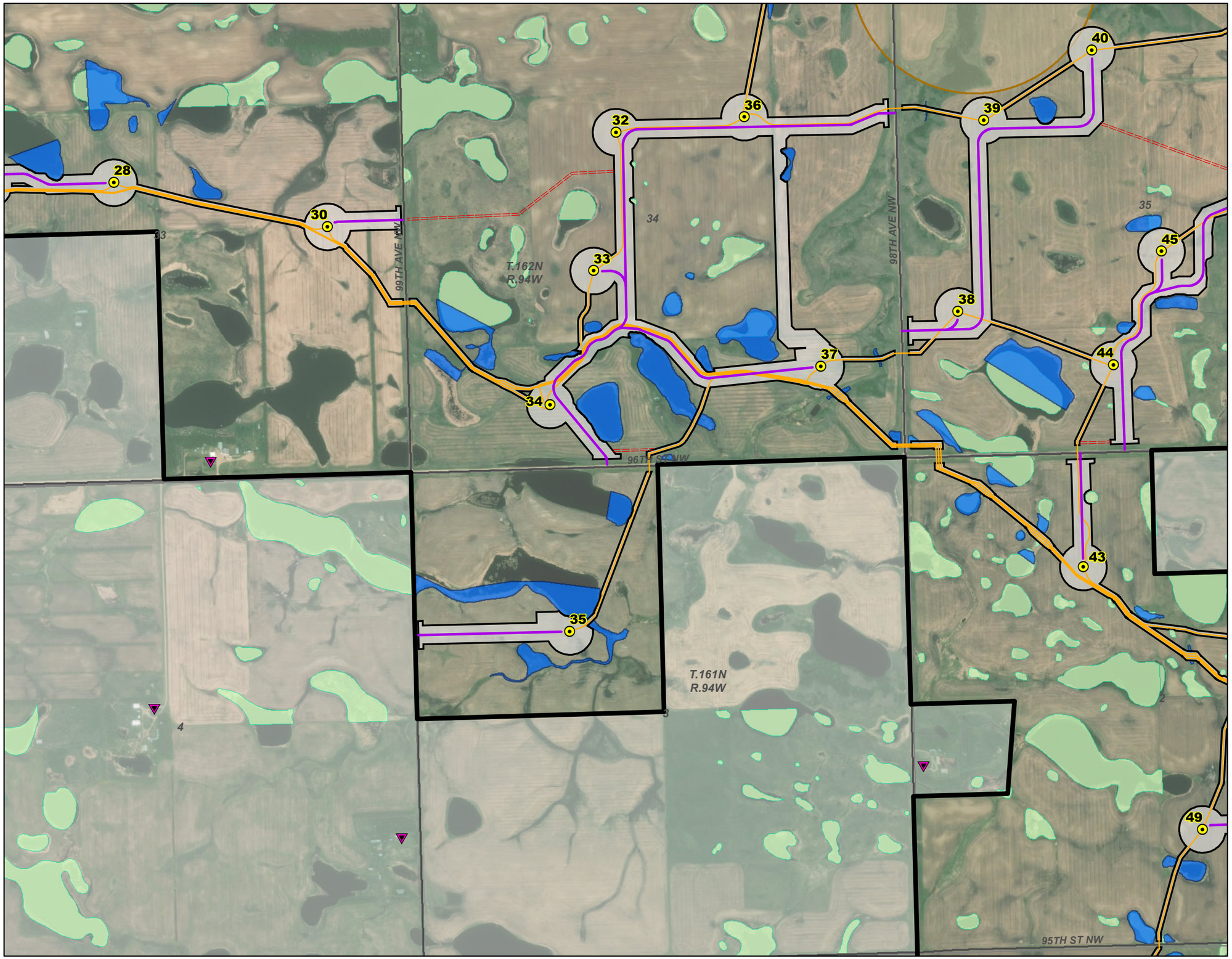
0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 4 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



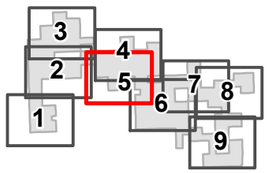
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest 1/4 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



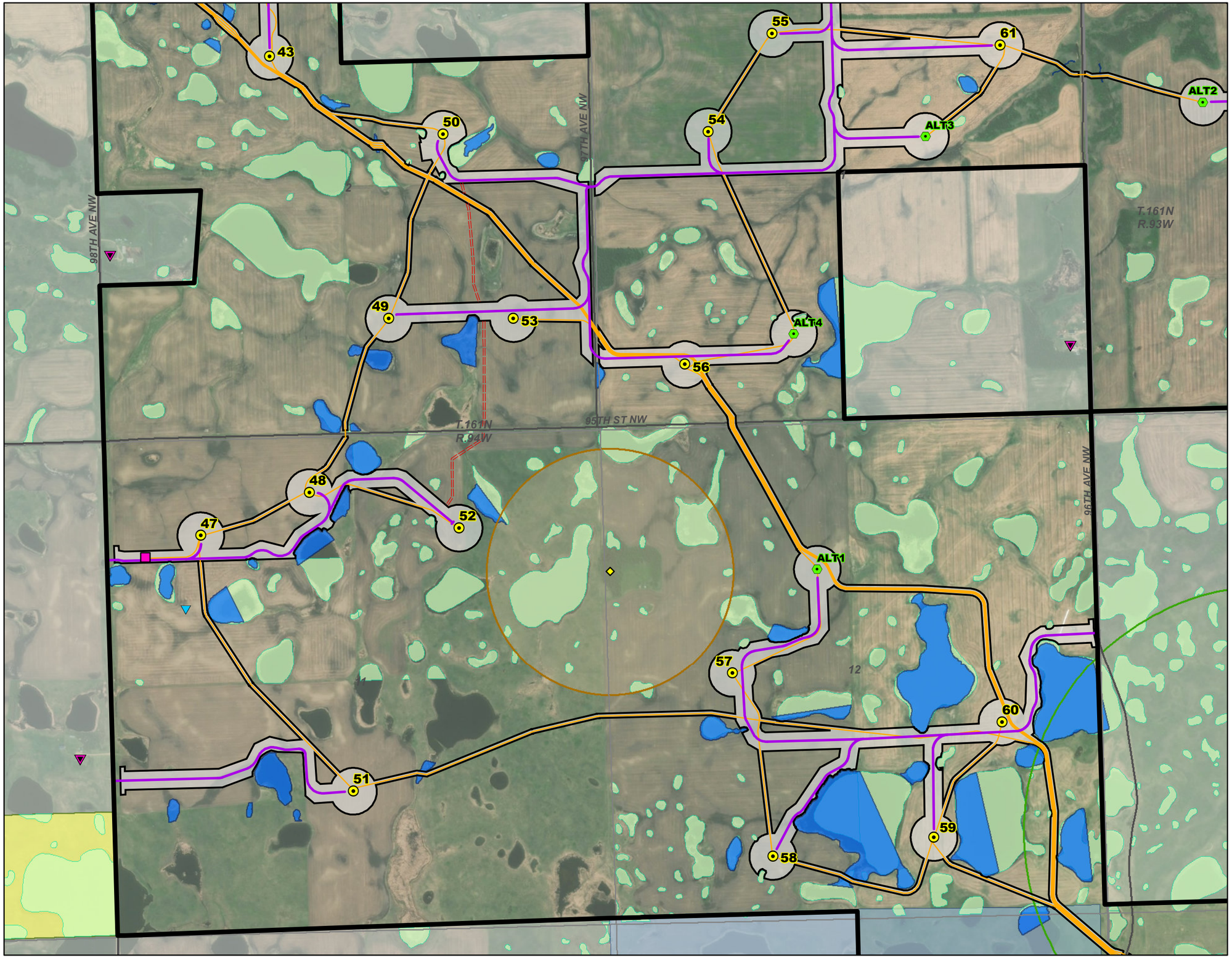
0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 5 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



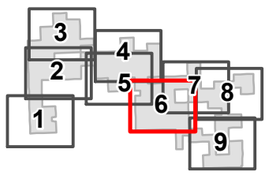
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Alternative Turbine
- Temporary MET Tower
- ADLS Radar Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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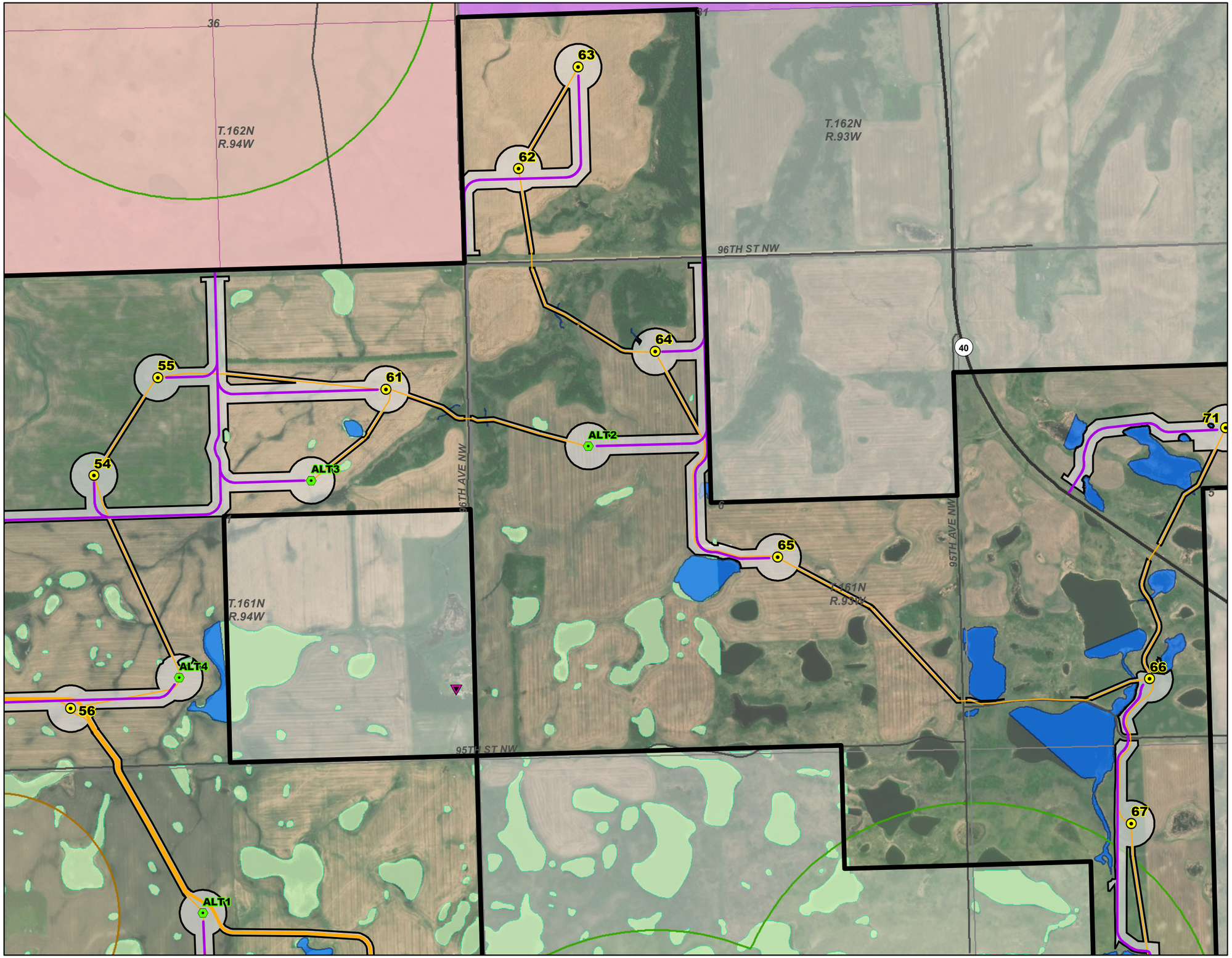
Site Plan Detail (Aerial)
Map 6 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



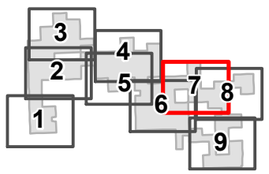
Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- Columbus Park District - WildWood Park

Site Plan

- Primary Turbine
- Alternative Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



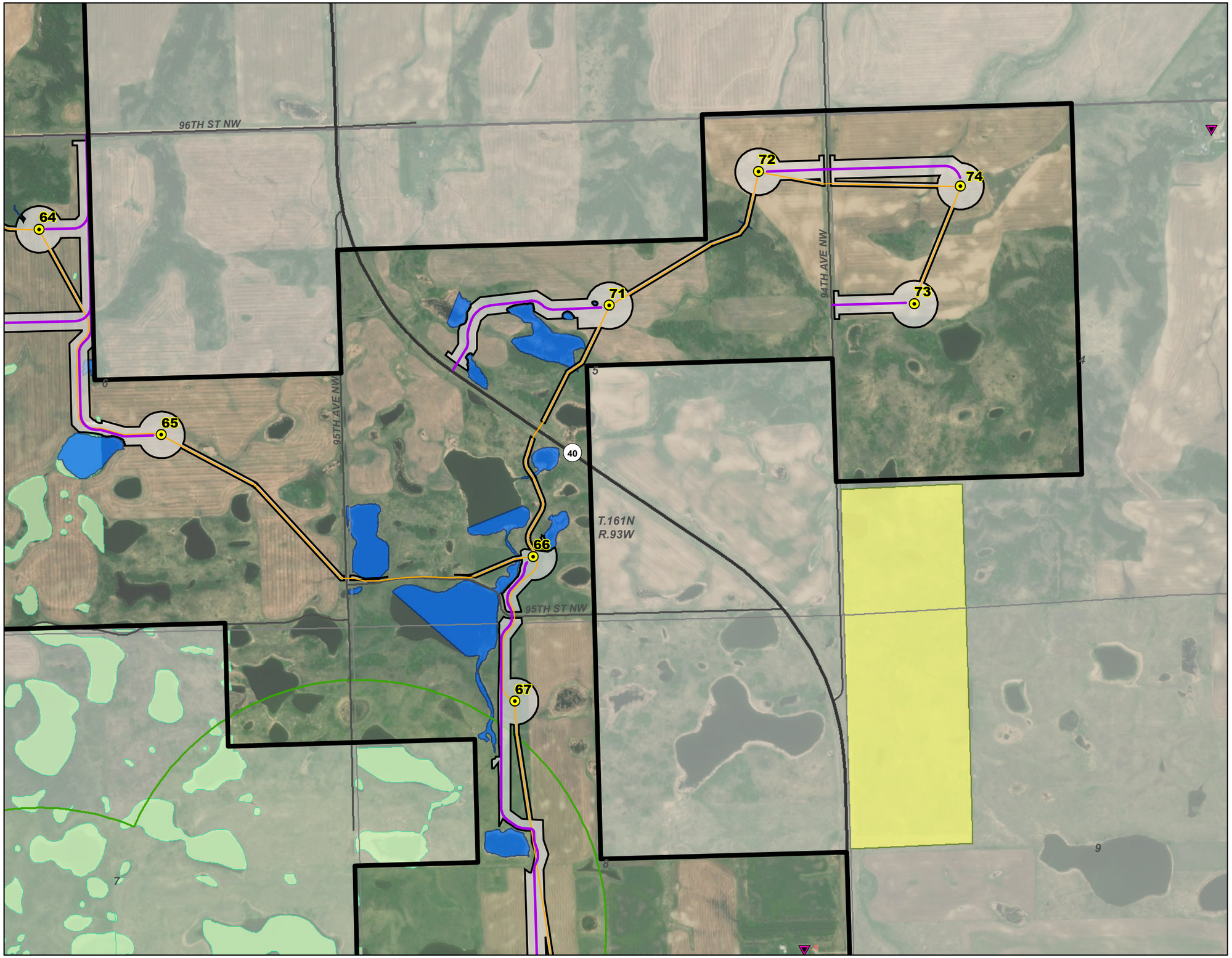
0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 7 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



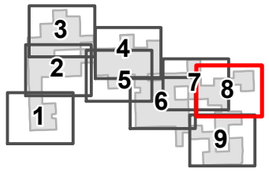
Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

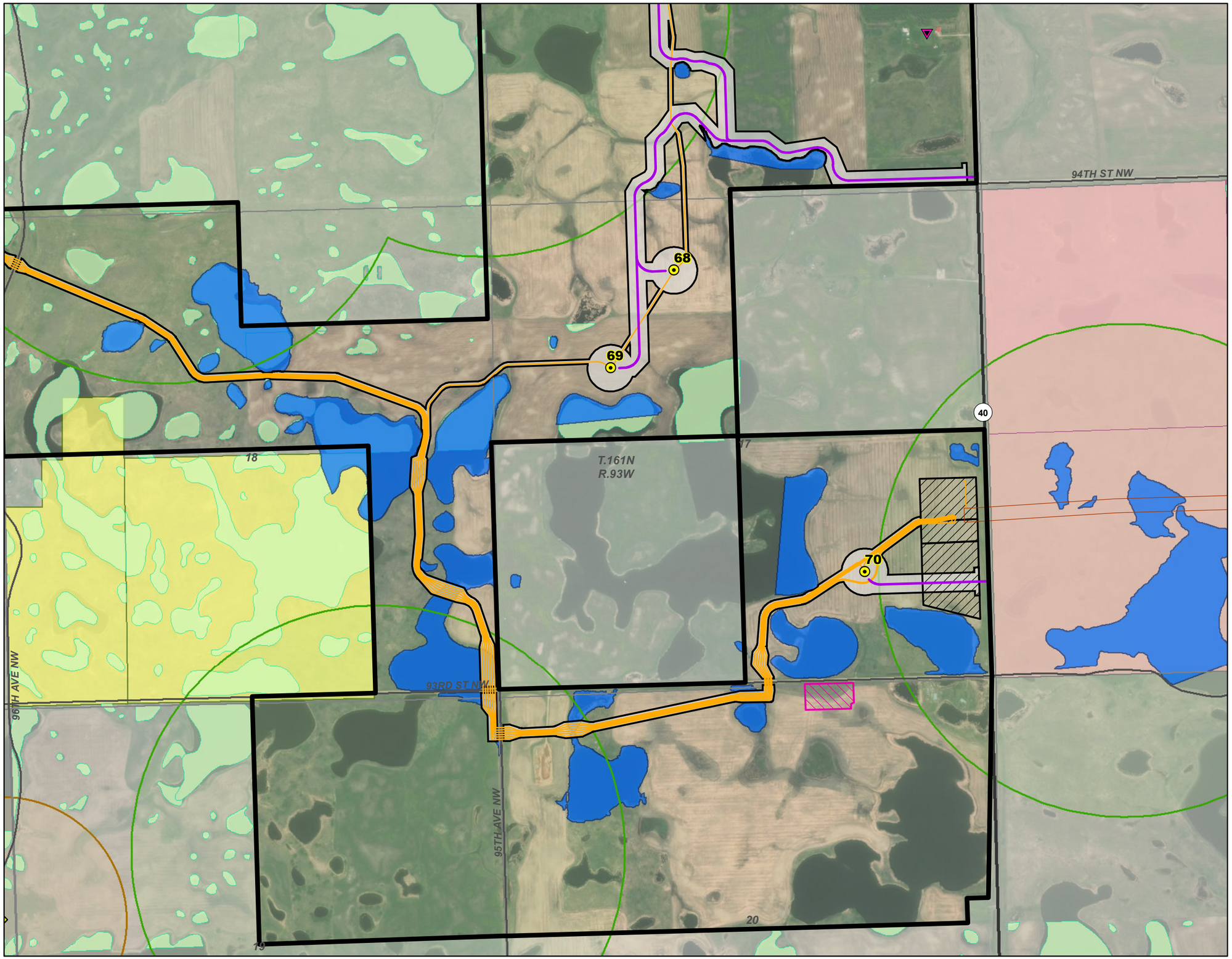


0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 8 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



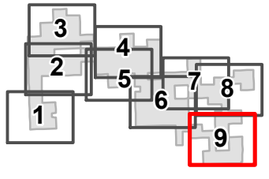
Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- State Trust Land

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Batch Plant
- Laydown Yard, O&M Building & Substation
- Construction Easement
- Northern Divide Wind Energy Center Project Area
- Northern Divide 345-kV Transmission Line Right-of-Way

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



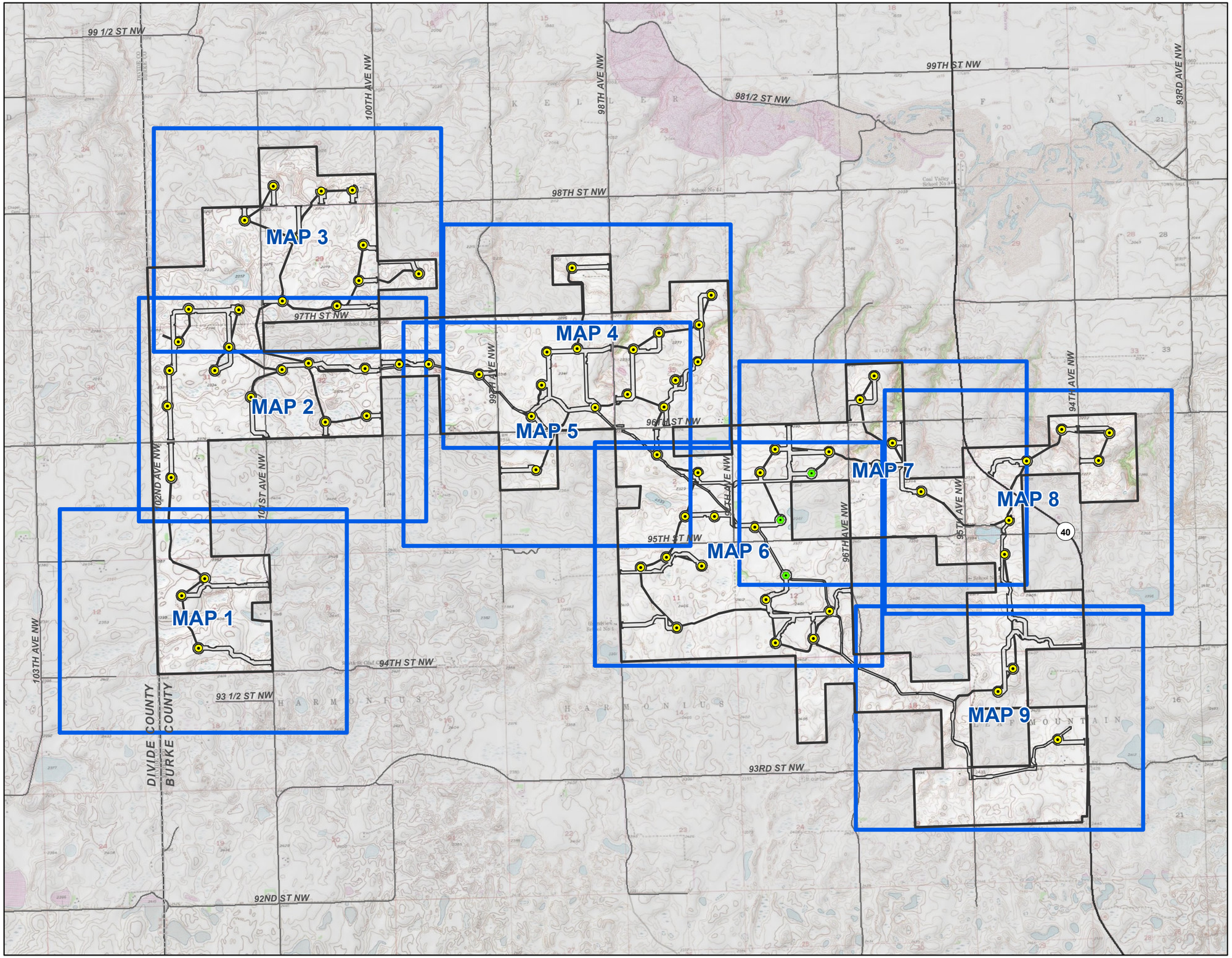
0 1,000 2,000 Feet

Site Plan Detail (Aerial)
Map 9 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



Legend

County Road

State/Federal Highway

County Boundary

Site Plan

Primary Turbine

Alternative Turbine

Construction Easement

Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

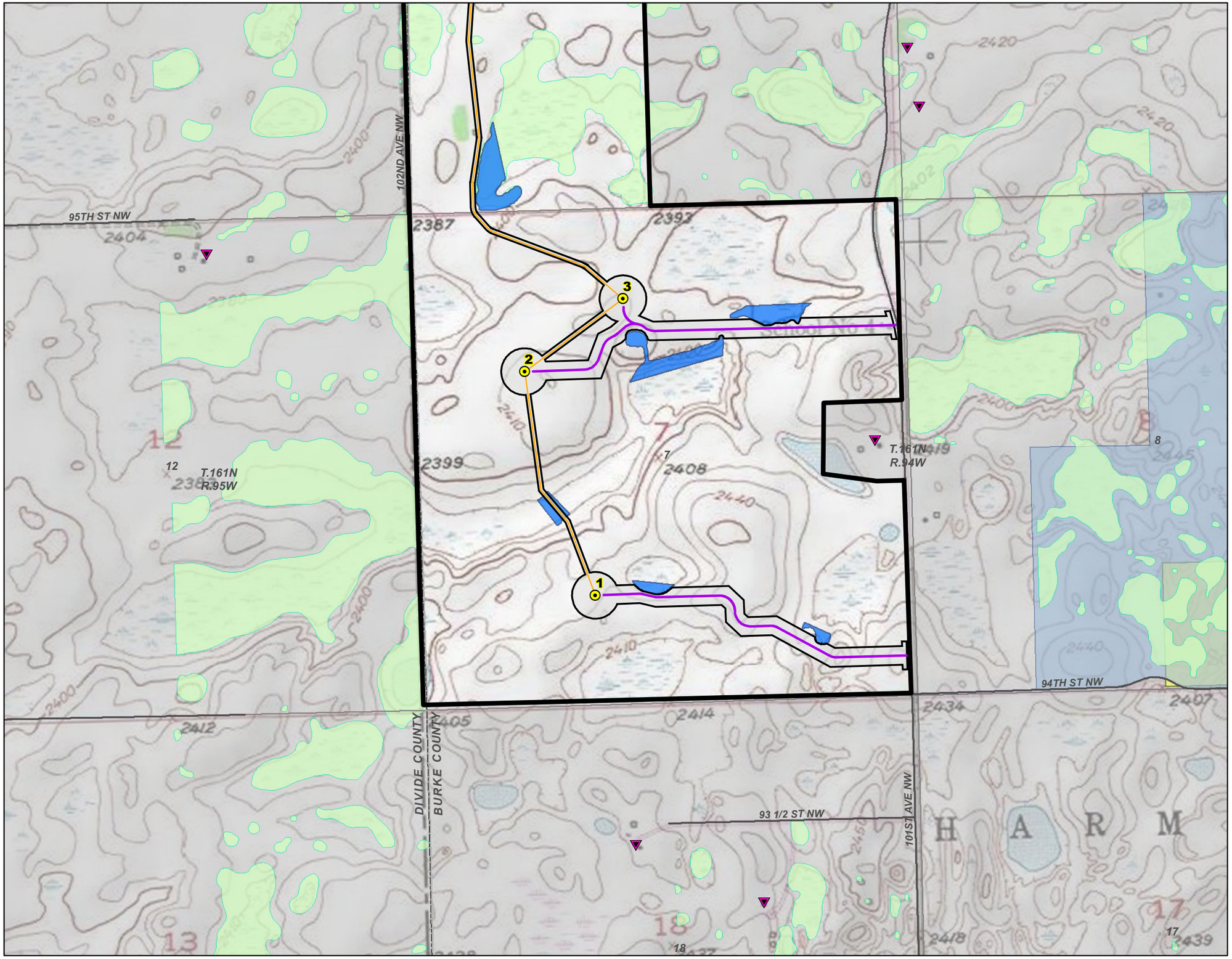
0 0.5 1 Miles

Site Plan Detail Index Map (Topographic)

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



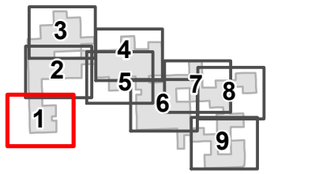
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

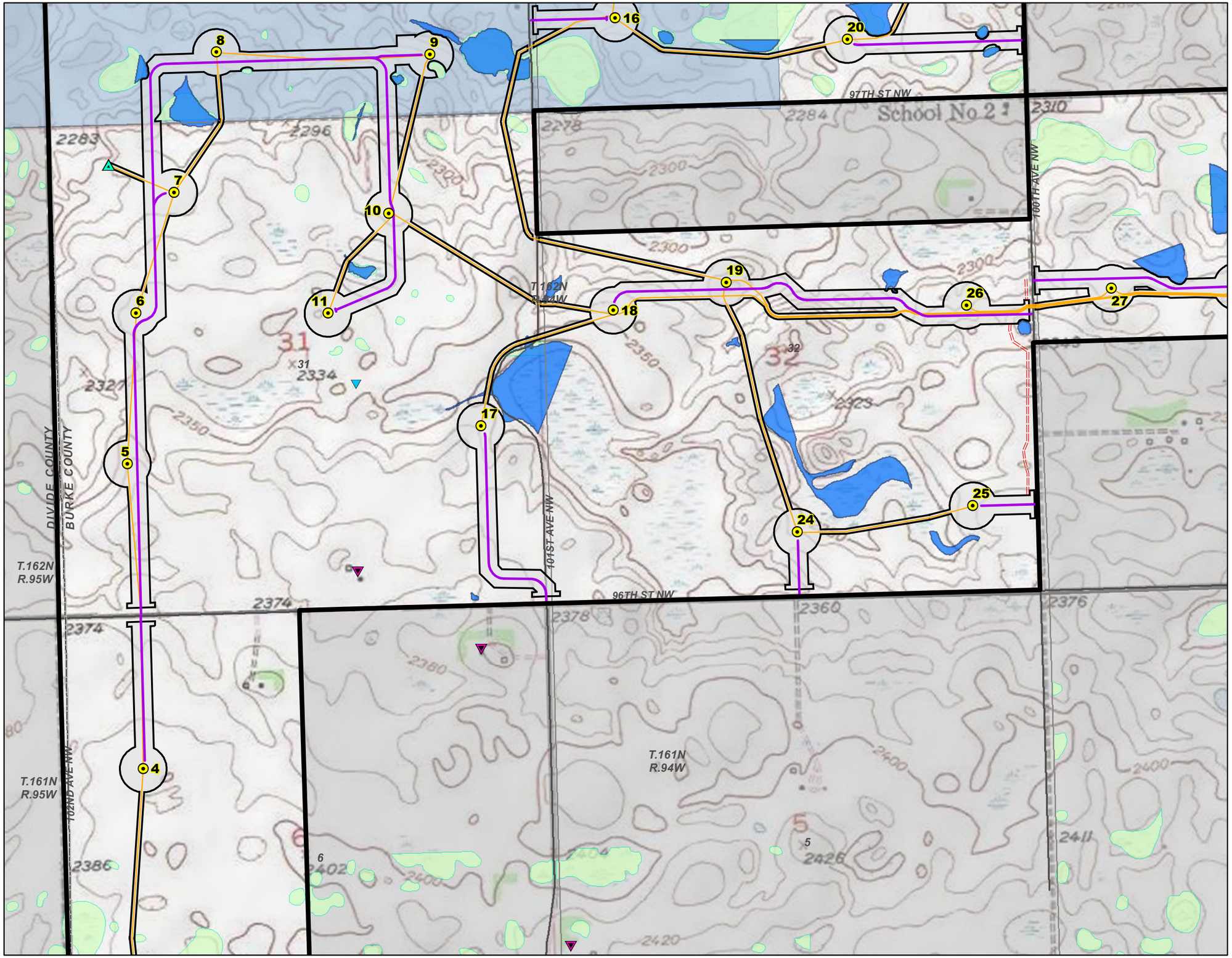


0 1,000 2,000 Feet

Site Plan Detail (Topographic)
Map 1 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Permanent MET Tower
- Temporary MET Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

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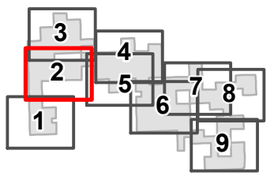


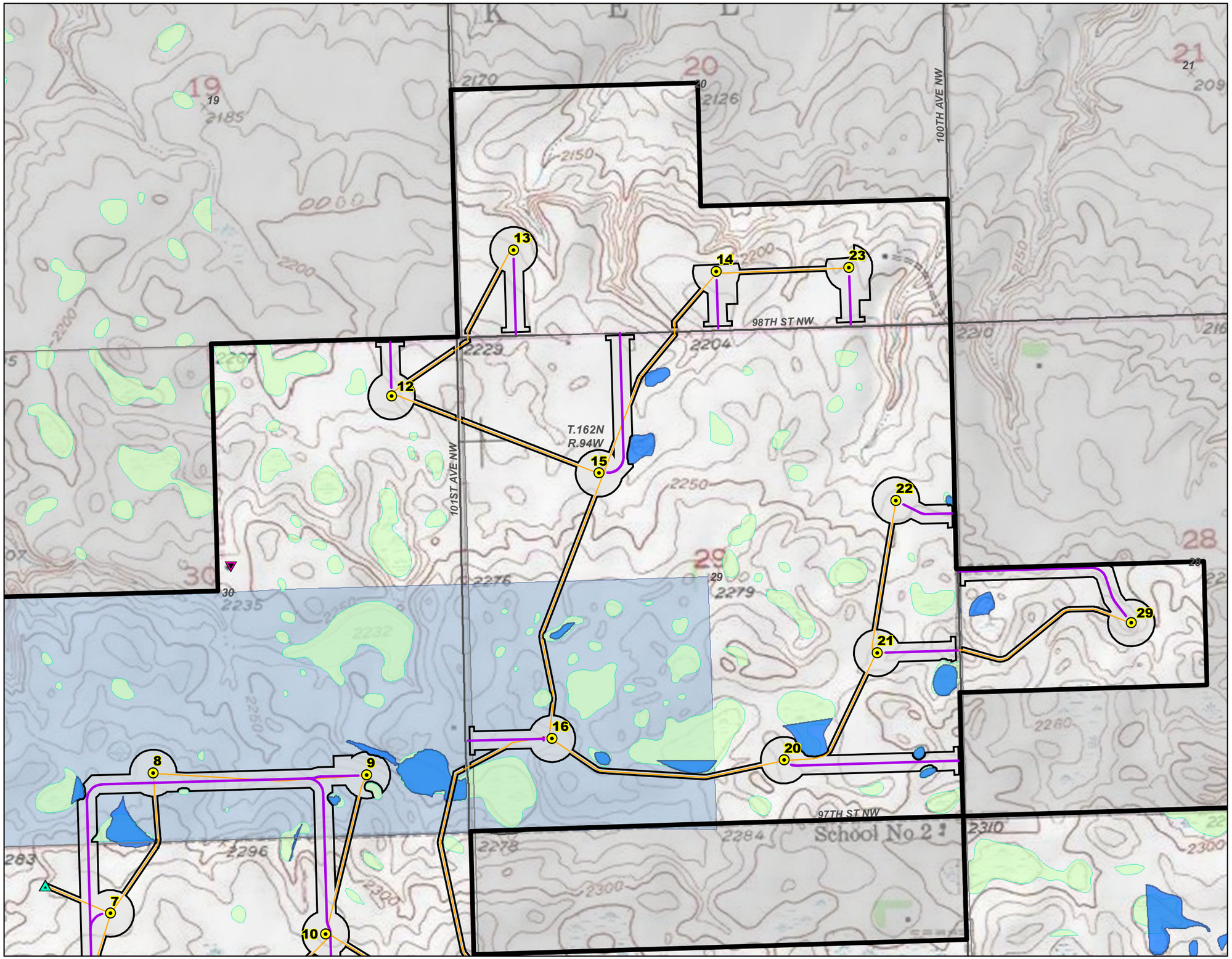
0 1,000 2,000 Feet

Site Plan Detail (Topographic)
Map 2 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



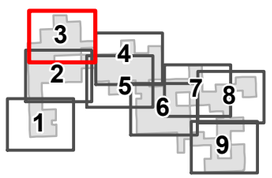
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Permanent MET Tower
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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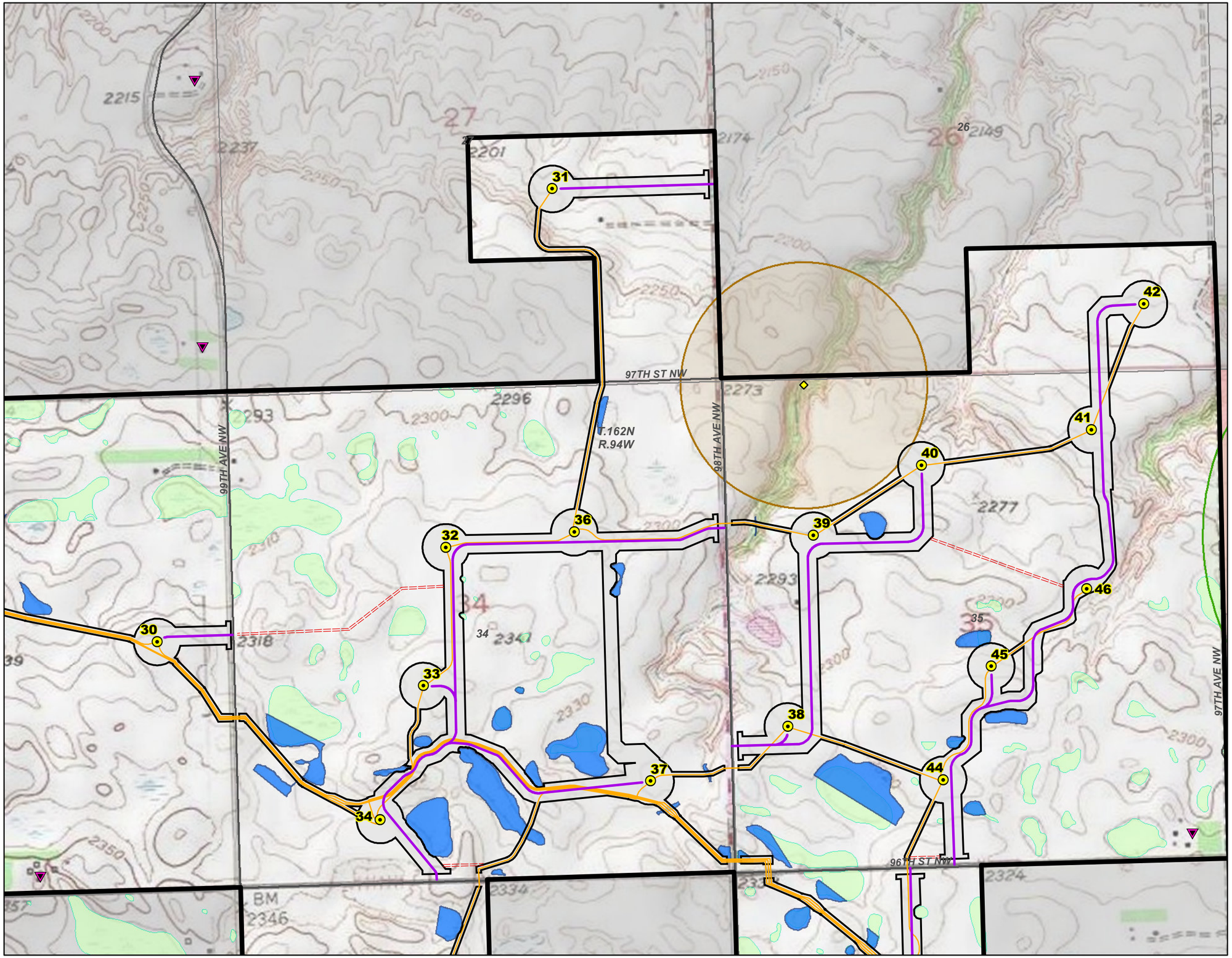
Site Plan Detail (Topographic)
Map 3 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



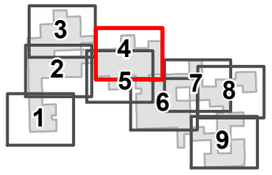
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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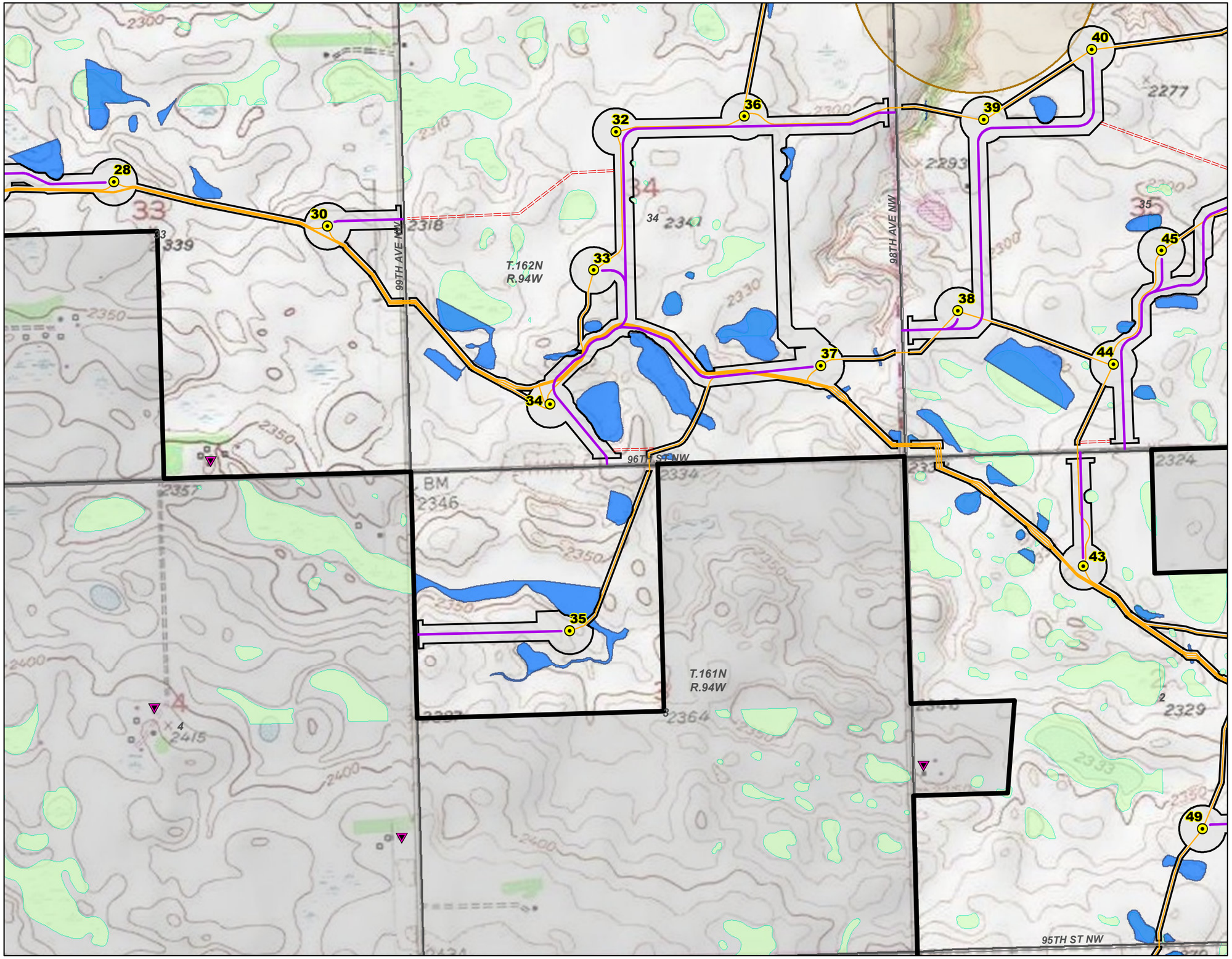
Site Plan Detail (Topographic)
Map 4 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



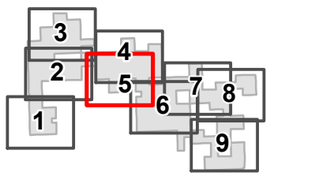
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest 1/4 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

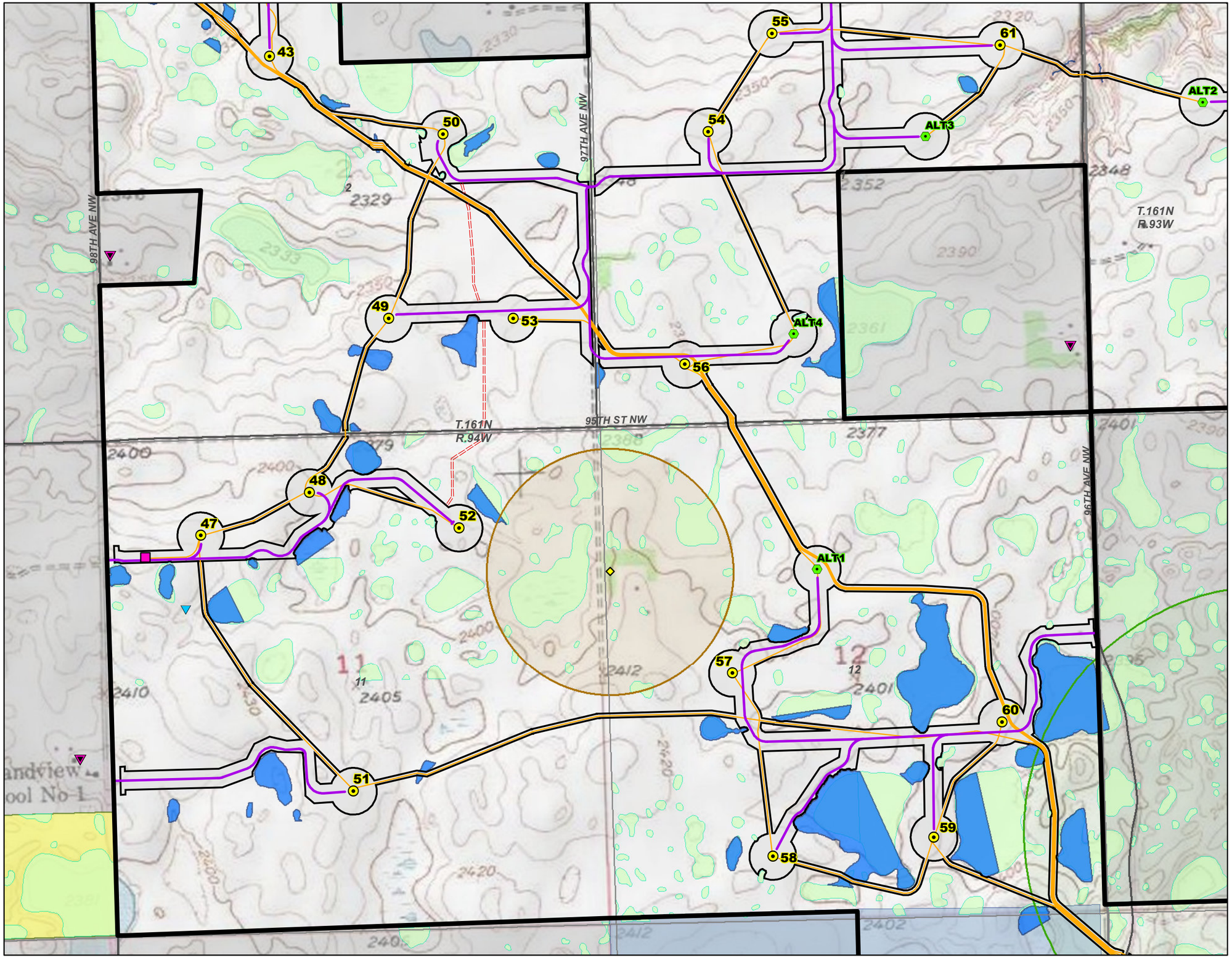


0 1,000 2,000 Feet

Site Plan Detail (Topographic)
Map 5 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



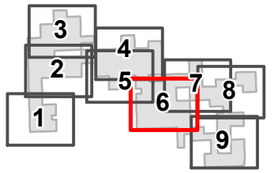
Legend

- County Road
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- Private Land Open to Sportsmen Agreement

Site Plan

- Primary Turbine
- Alternative Turbine
- Temporary MET Tower
- ADLS Radar Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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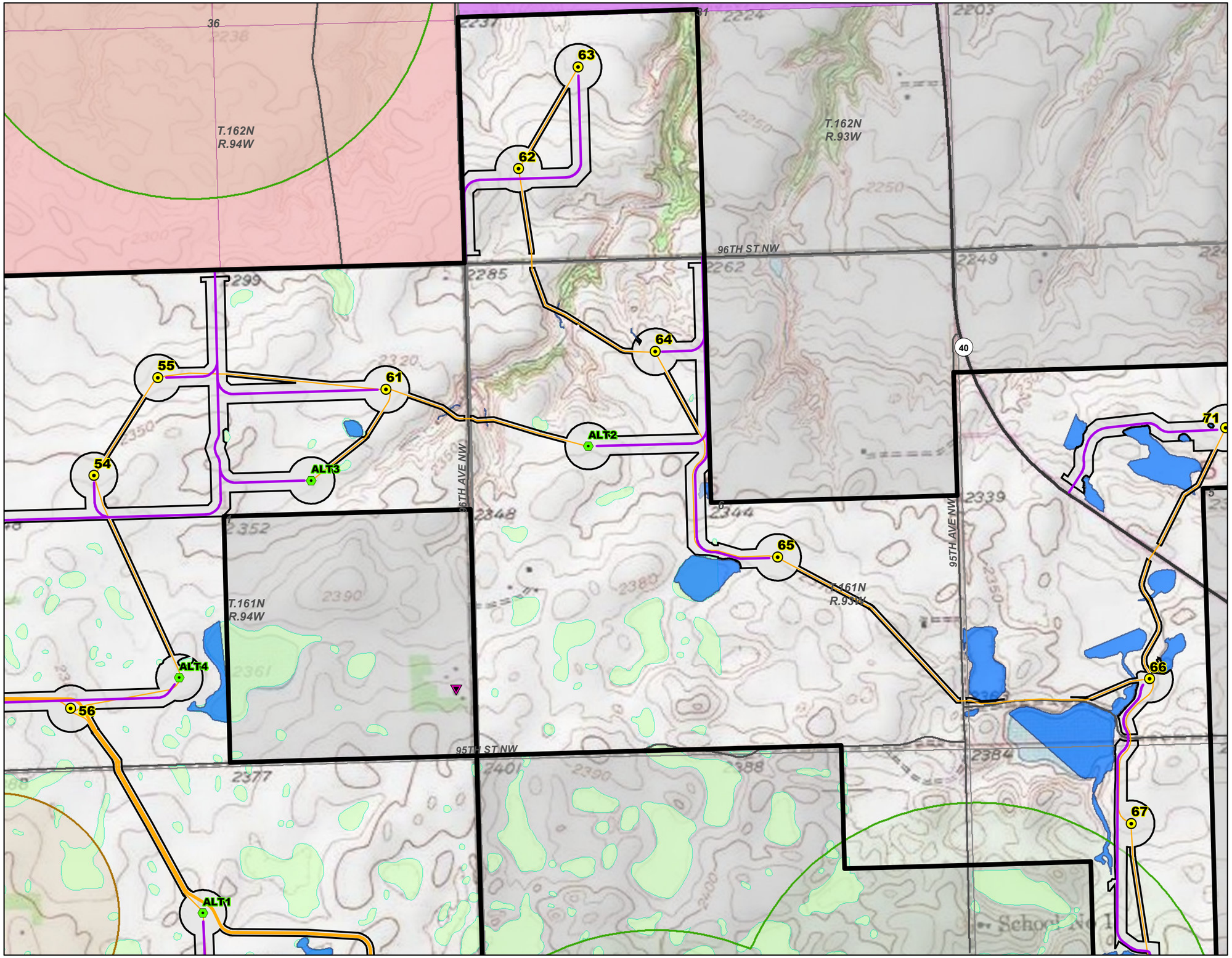
Site Plan Detail (Topographic)
Map 6 of 9

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



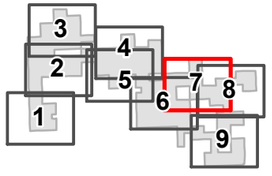
Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- Columbus Park District - WildWood Park

Site Plan

- Primary Turbine
- Alternative Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.

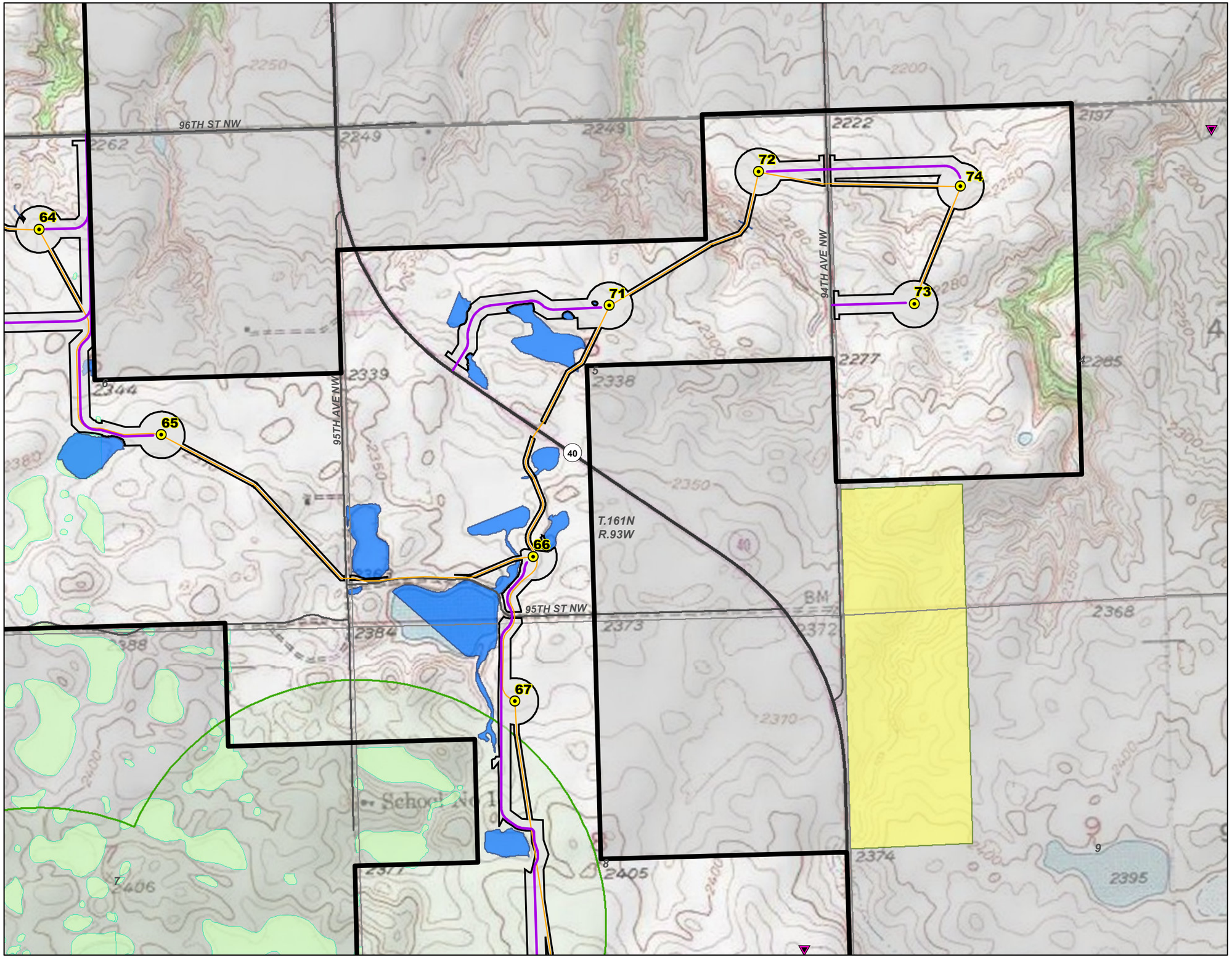


0 1,000 2,000 Feet

Site Plan Detail (Topographic)
Map 7 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



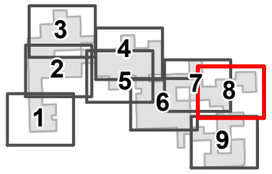
Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- Northern Divide Wind Energy Center Project Area

Contractor will bore all wetlands and roads. Known archaeological sites are not depicted due to confidentiality.



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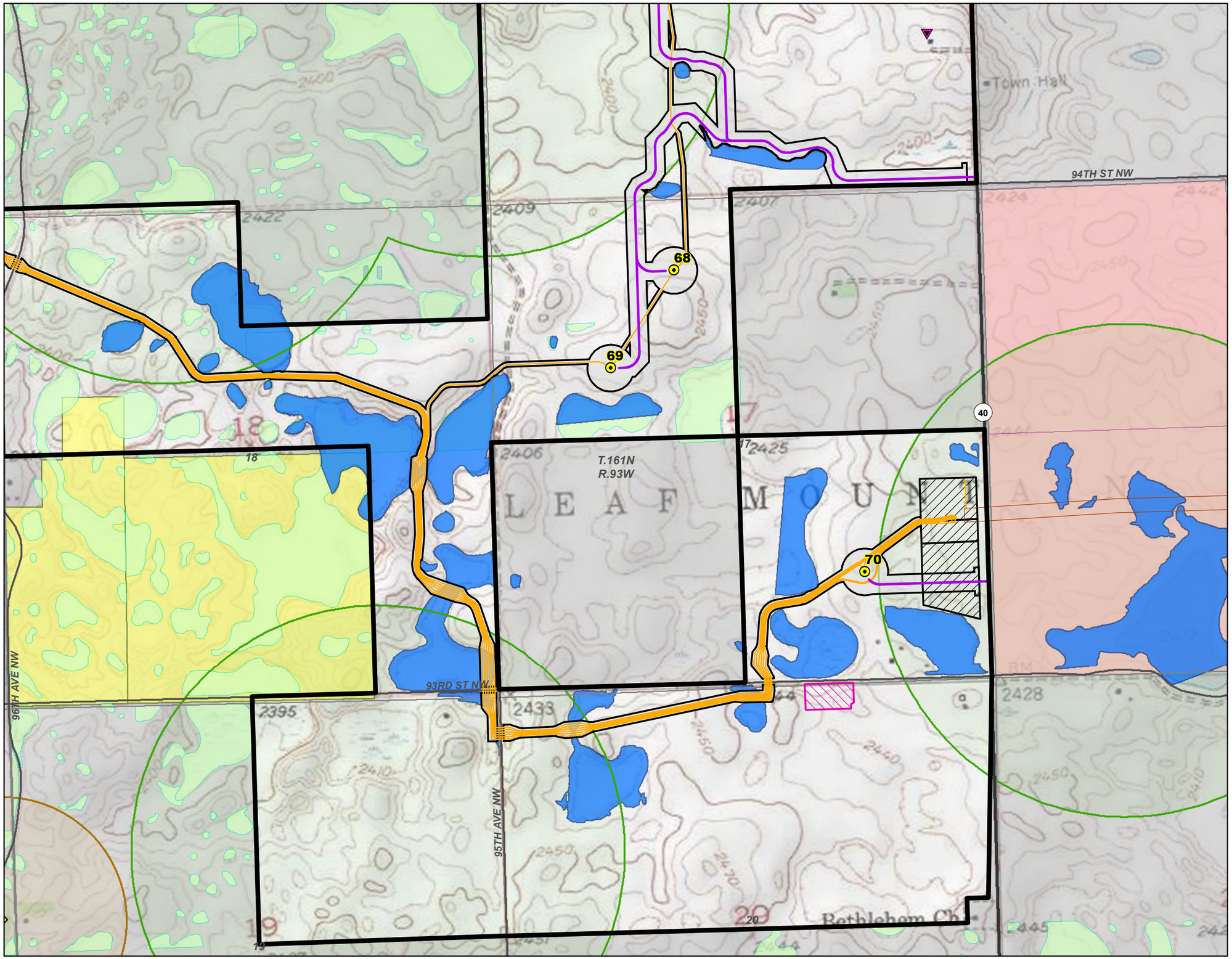
Site Plan Detail (Topographic)
Map 8 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- Township/Range Boundary
- Section Boundary
- Receptor
- Raptor Nest
- Raptor Nest 1/4 Mile Buffer
- Sharp-tailed Grouse Lek 1/2 Mile Buffer
- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement
- State Trust Land

Site Plan

- Primary Turbine
- Access Road
- Collection Line
- Batch Plant
- Laydown Yard, O&M Building & Substation
- Construction Easement
- Northern Divide Wind Energy Center Project Area
- Northern Divide 345-kV Transmission Line Right-of-Way

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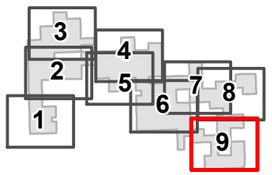

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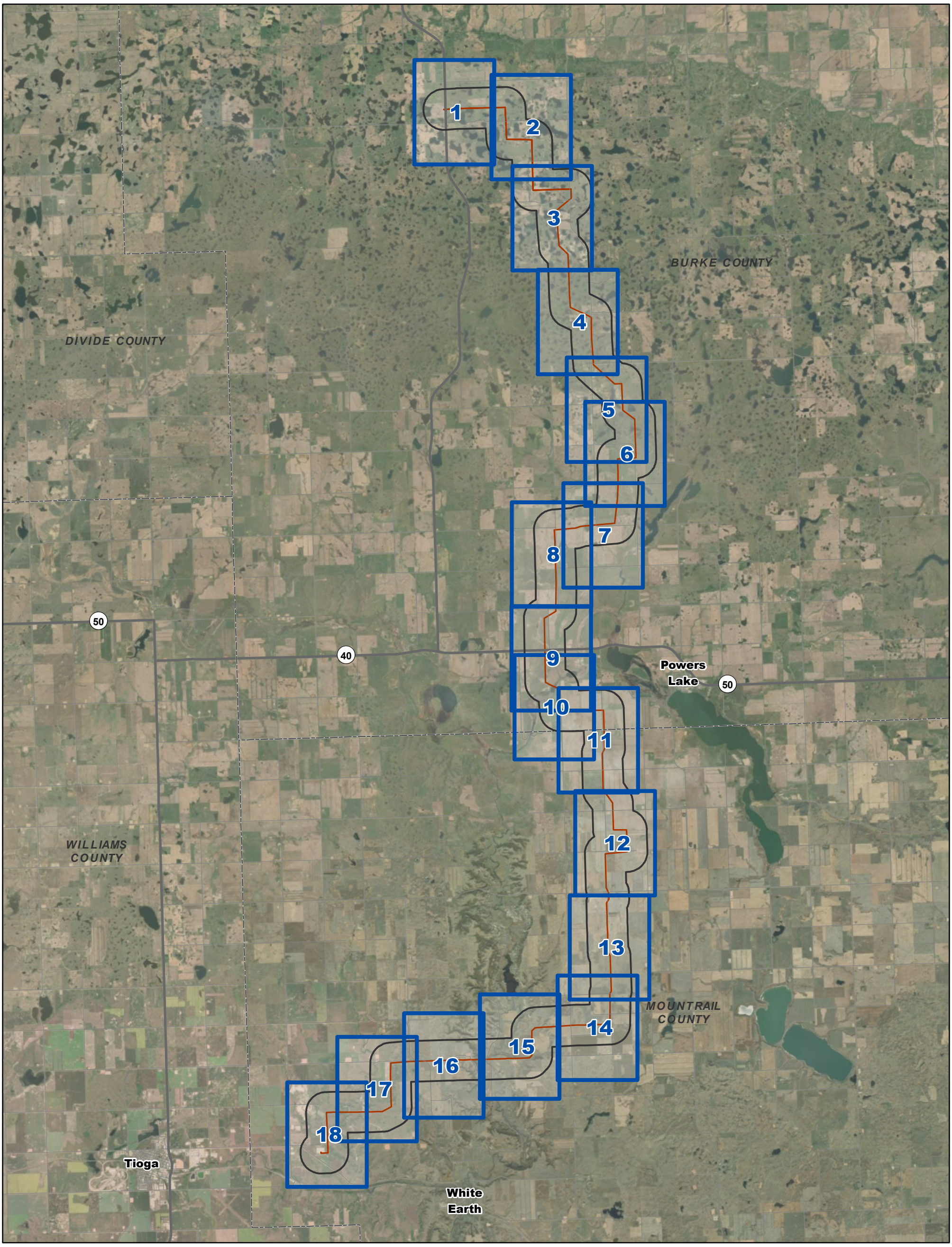
Site Plan Detail (Topographic)
Map 9 of 9

Northern Divide Wind Energy Center
Burke County, ND

AECOM



Site Plan Detail Index Map (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

N W E S

0 1 2 Miles

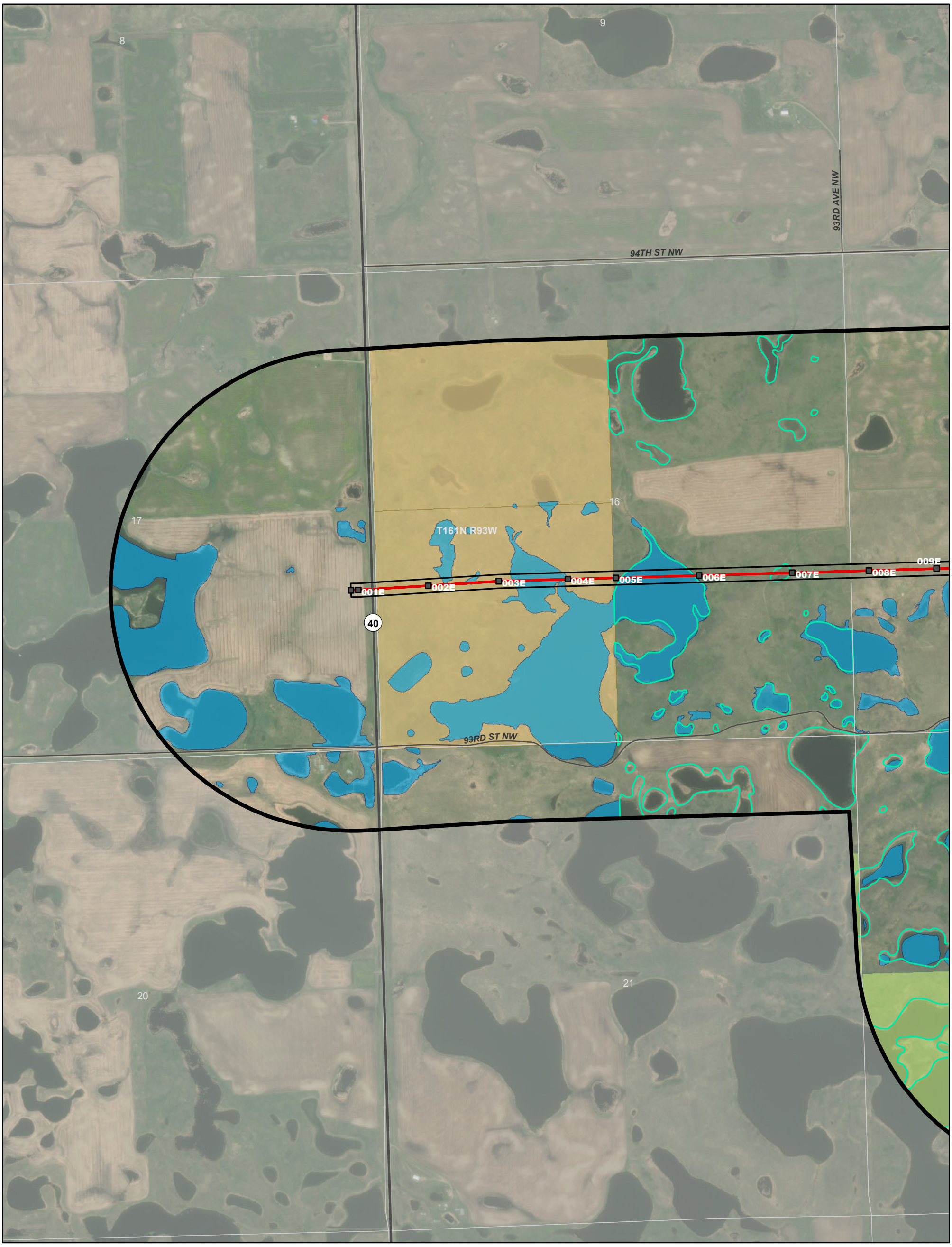
AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary
- Map Series Page

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Project Route



Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 1 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

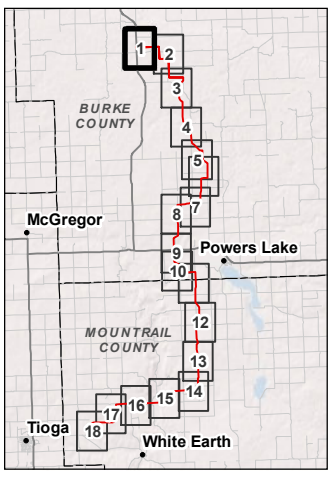
- County Road
- State/Federal Highway
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

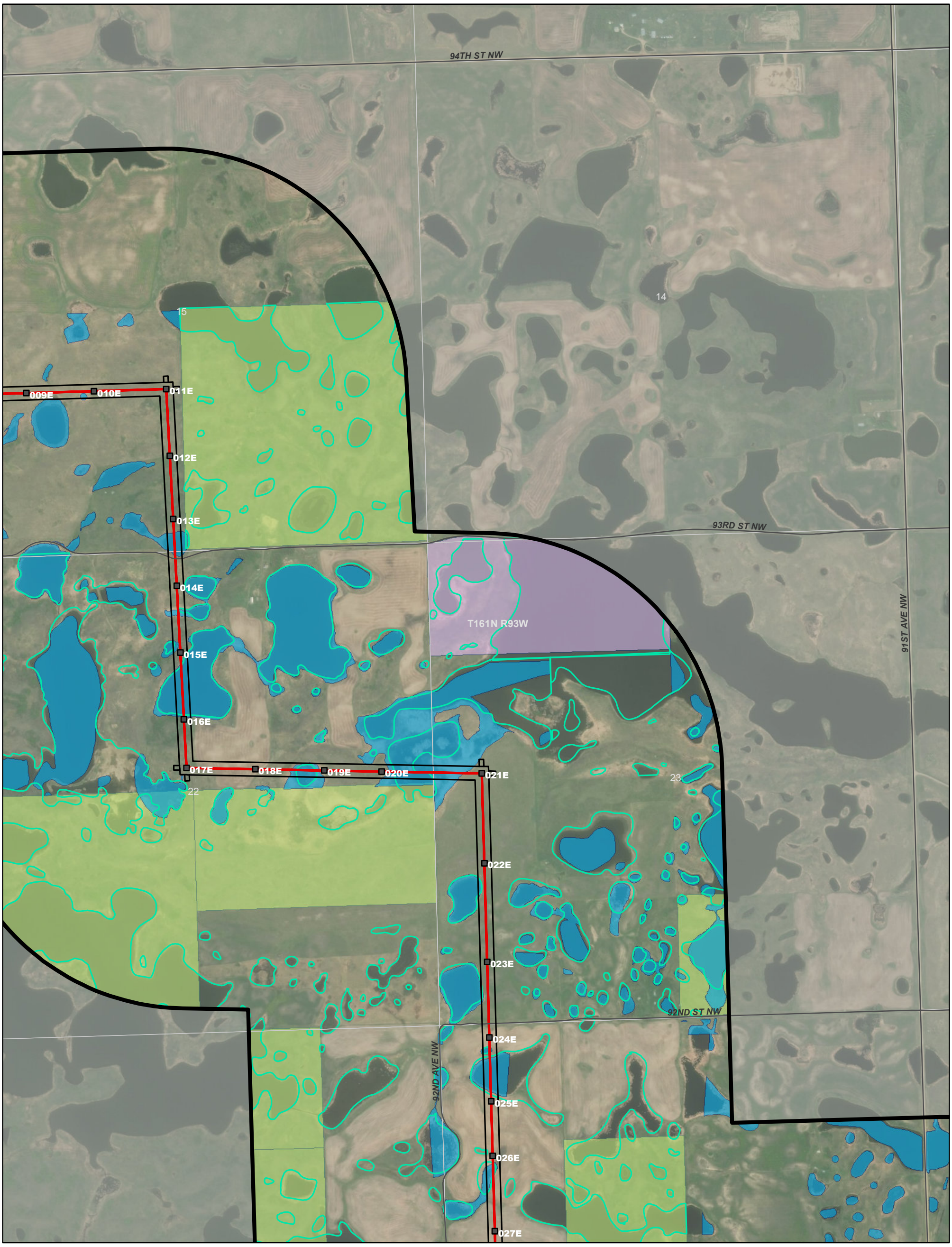
Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

Delineated wetlands include AECOM and Atwell delineated wetlands/other waters. Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.





Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 2 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen
- USFWS Grassland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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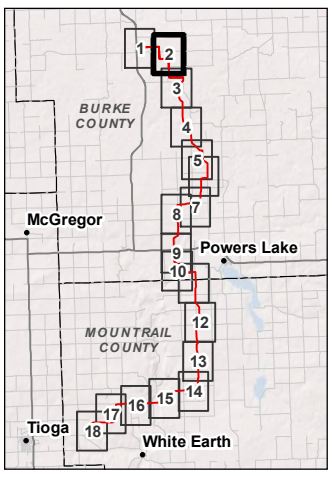

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 3 of 18

N
W E
S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure
- Pulling Loctation

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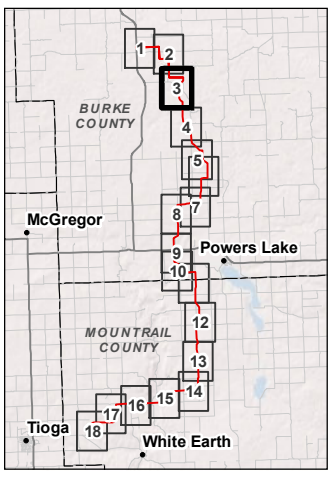

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 4 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure
- Pulling Loctation

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

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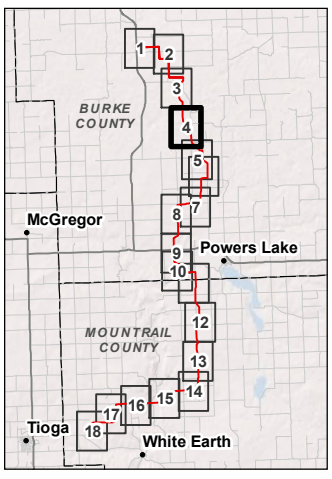
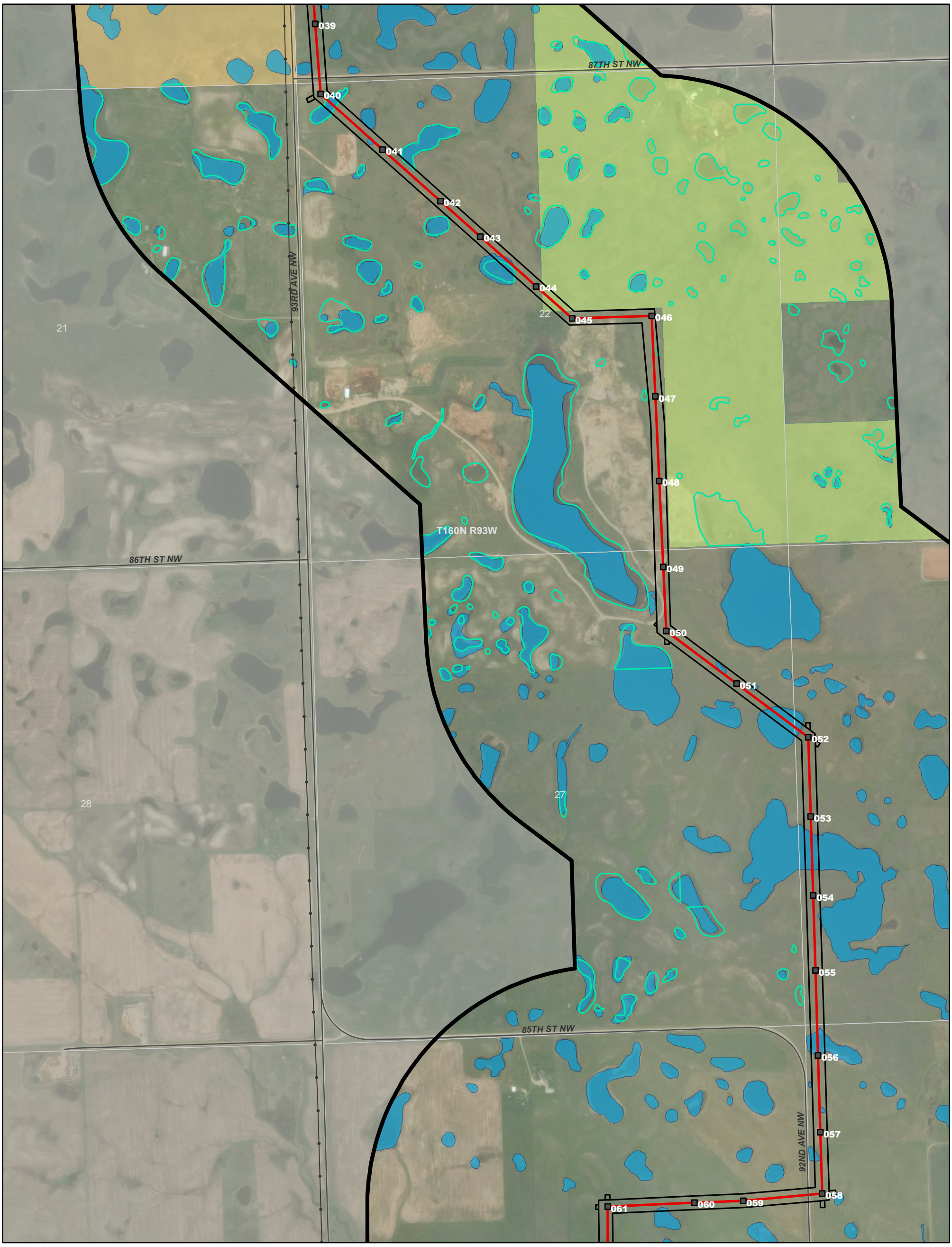




Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 5 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

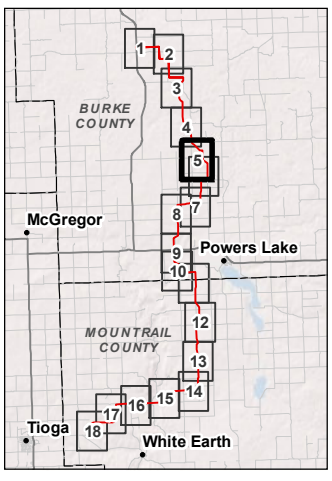
- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

Delineated wetlands include AECOM and Atwell delineated wetlands/other waters. Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



86TH ST NW
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85TH ST NW
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059
93RD AVE NW
34
062
92ND AVE NW
SMISHEK LAKE RD
063
064
84TH ST NW
065
T159N R93W
066
067
3
2

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 6 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement

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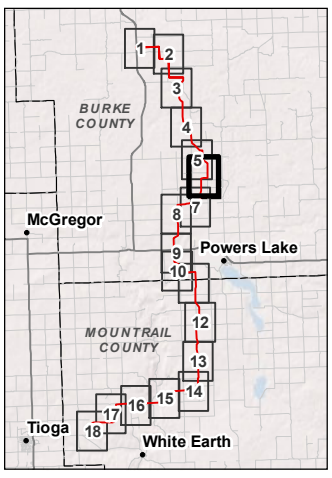

84TH ST NW
T160N R93W
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079
93RD AVE NW
92ND AVE NW
83RD ST NW
T159N R93W
9
10
82ND ST NW
15

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 7 of 18

N S E W

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- State Trust Land

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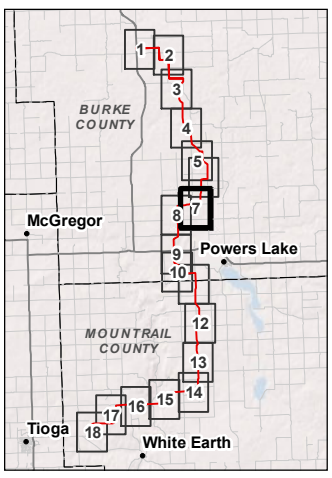

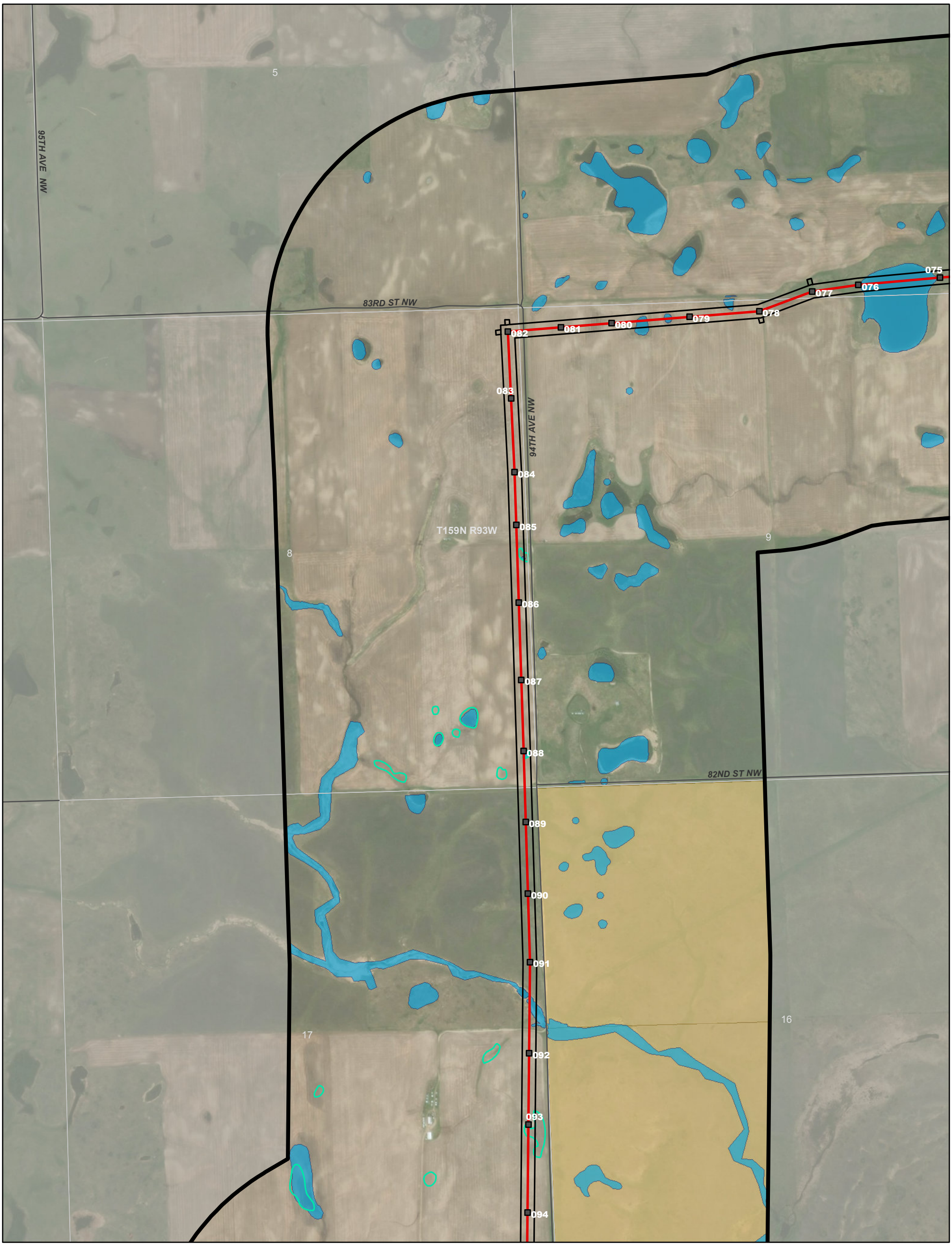

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 8 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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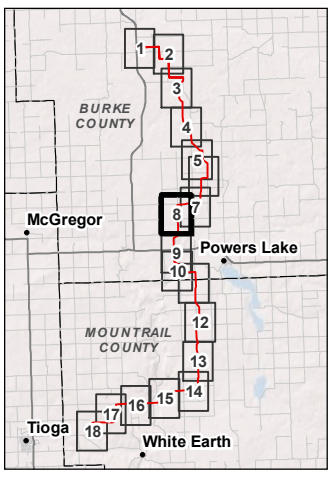

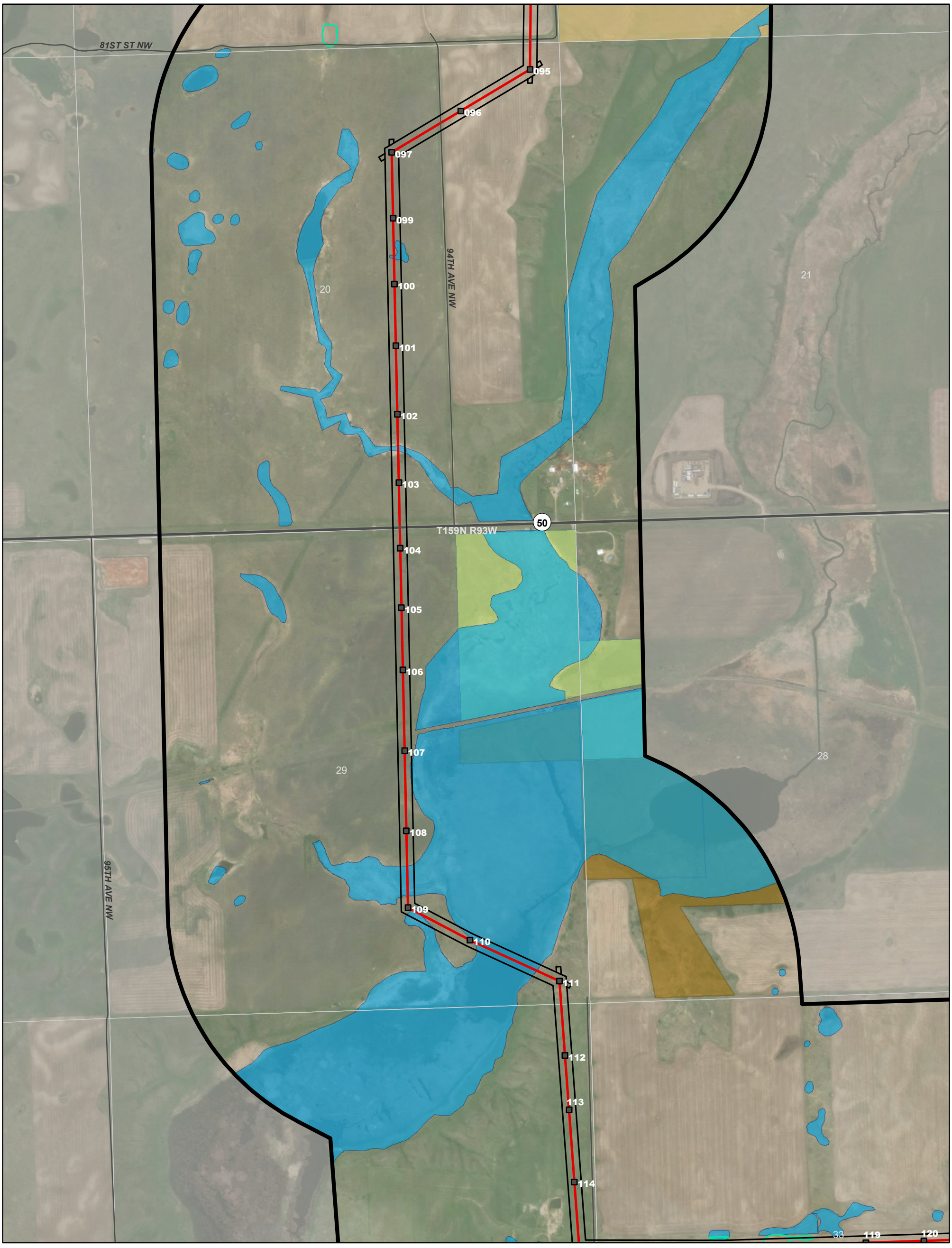

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 9 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area
- State Trust Land
- USFWS Grassland Easement

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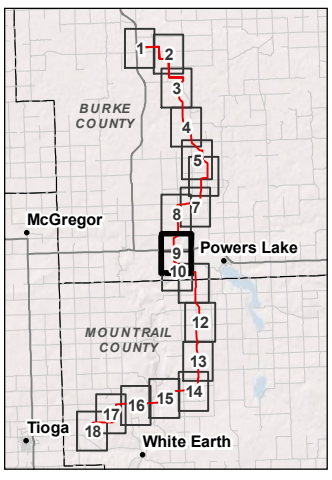

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T159N R93W
T158N R93W
95TH AVE NW
94TH AVE NW
78TH ST NW
77 1/2 ST NW
BURKE COUNTY
MOUNTRAIL COUNTY

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 10 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area
- USFWS Grassland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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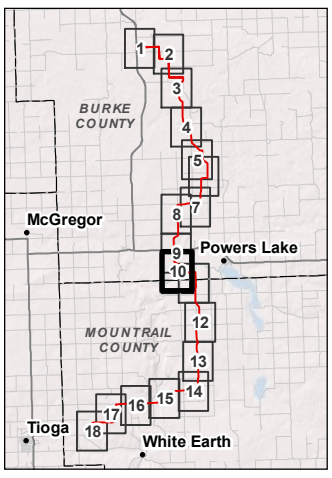

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 11 of 18

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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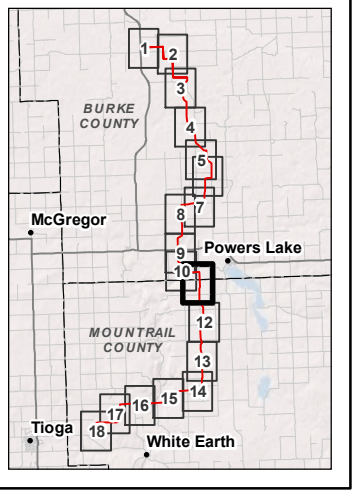

N S E W

0 500 1,000 Feet

AECOM

138
139
140
141
76TH ST NW
142
93RD AVE NW
143
144
145
146
16
T158N R93W
147
148
92ND AVE NW
149
75TH ST NW
150
151
152
153
154
155
156
21
22
157
158
159
160
74TH ST NW
60A

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 12 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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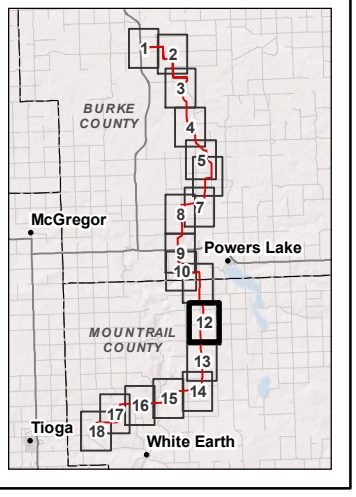

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 13 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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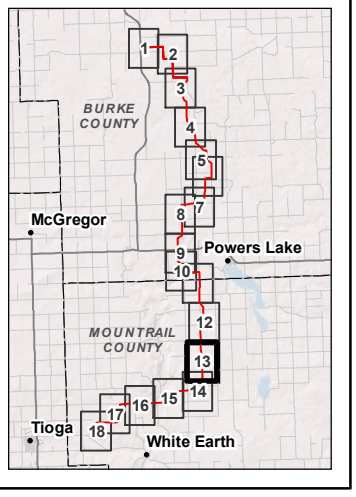

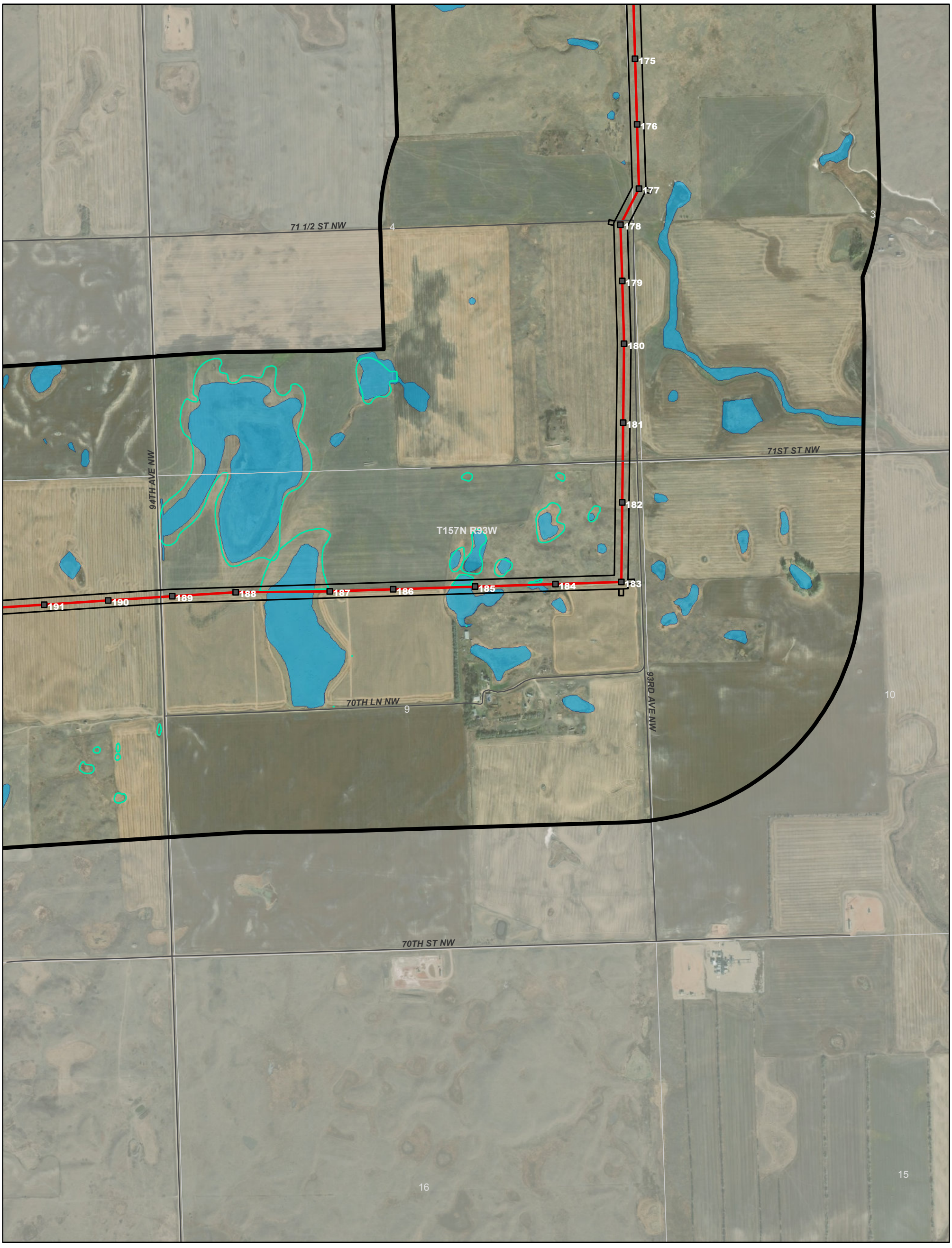

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 14 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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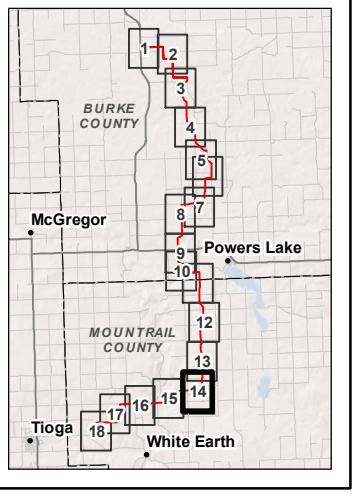

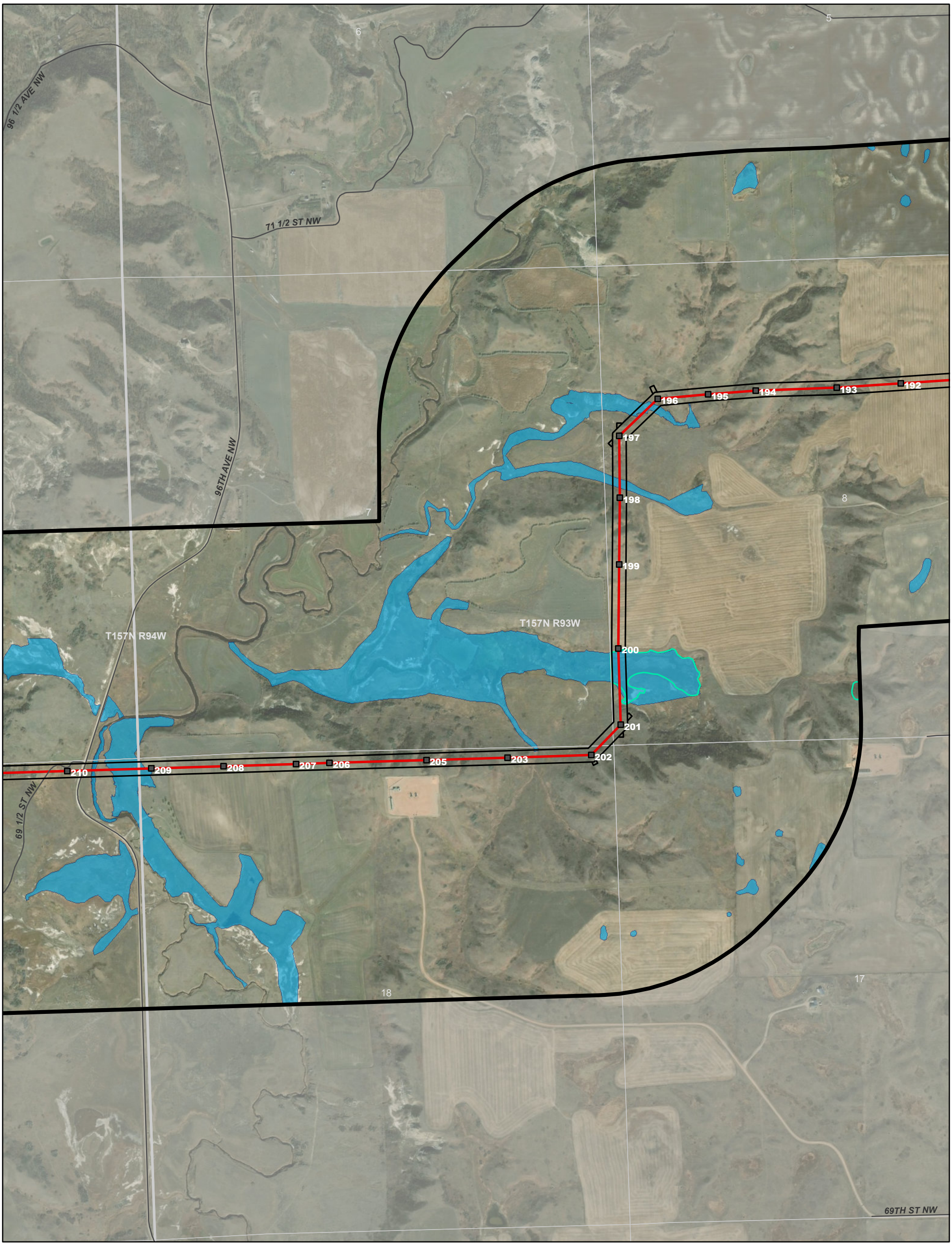

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

Map 15 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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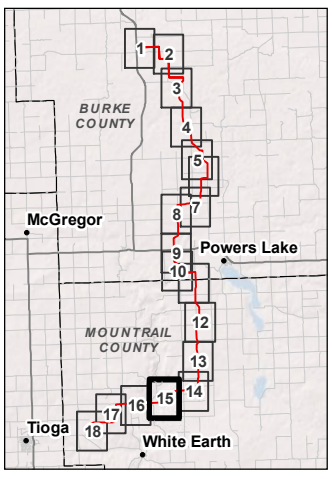

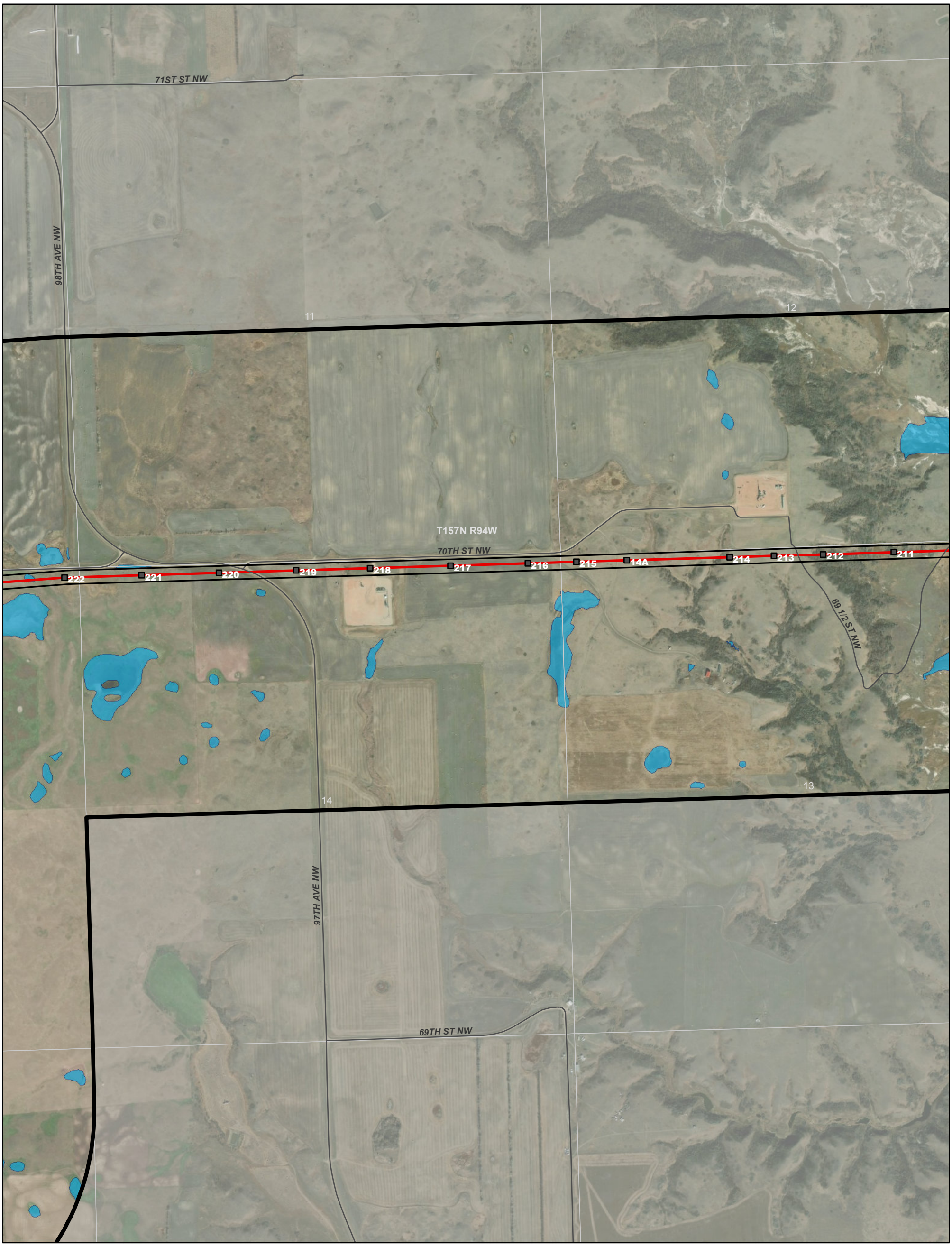

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 16 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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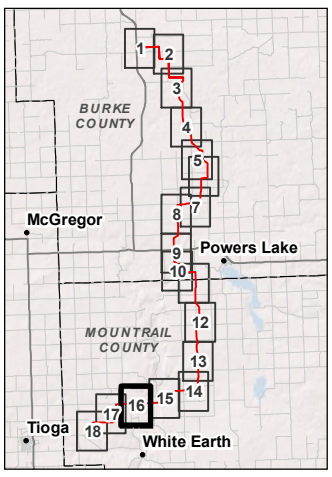

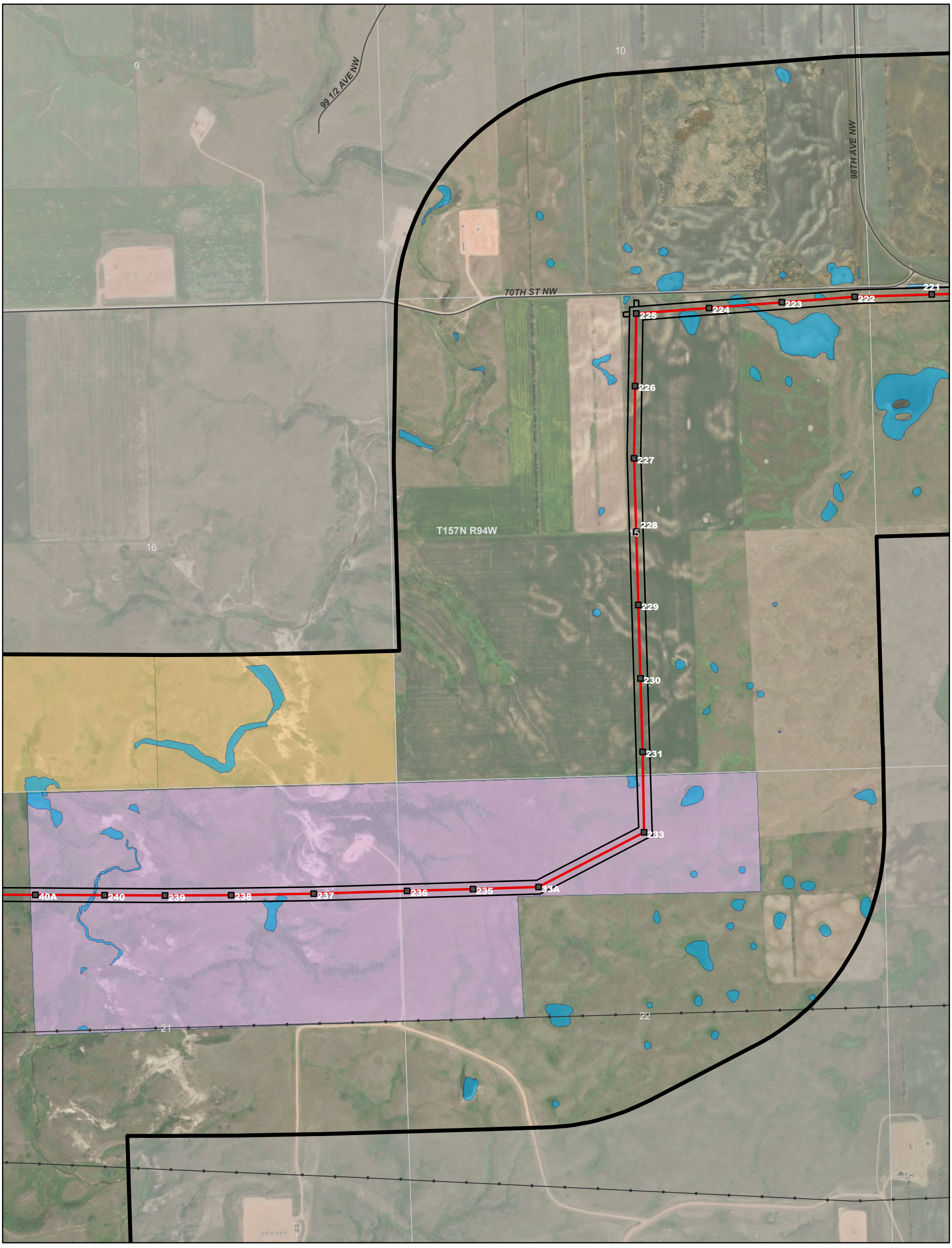

Site Plan Detail (Aerial)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 17 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- Private Land Open to Sportsmen
- State Trust Land

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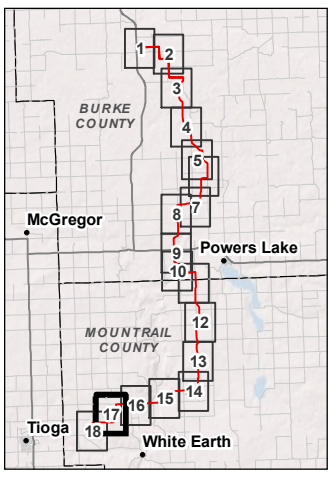

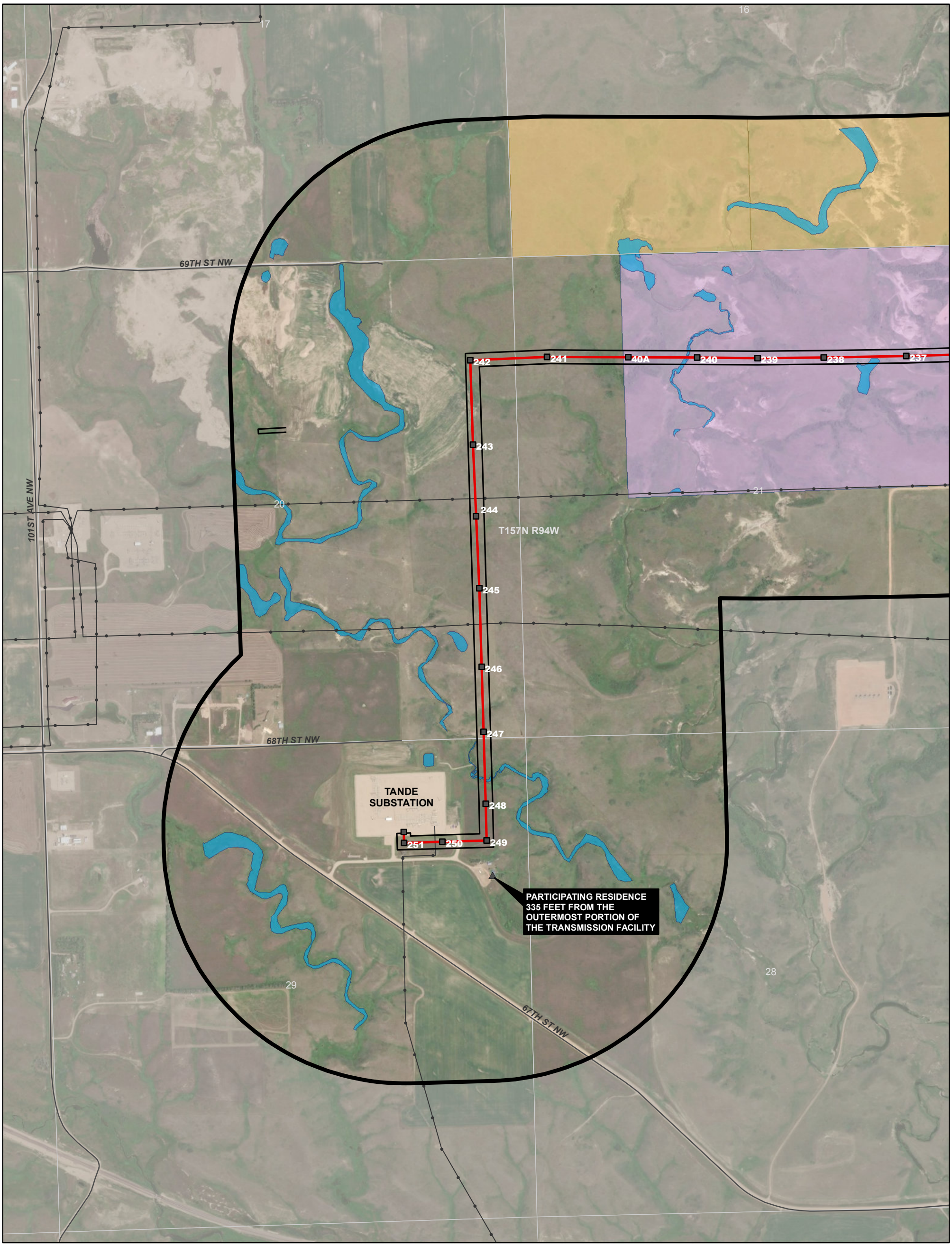

Site Plan Detail (Aerial)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 18 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- Private Land Open to Sportsmen
- State Trust Land

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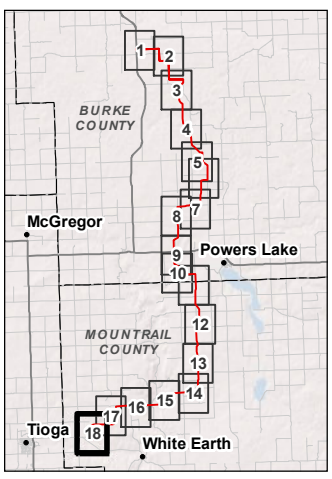
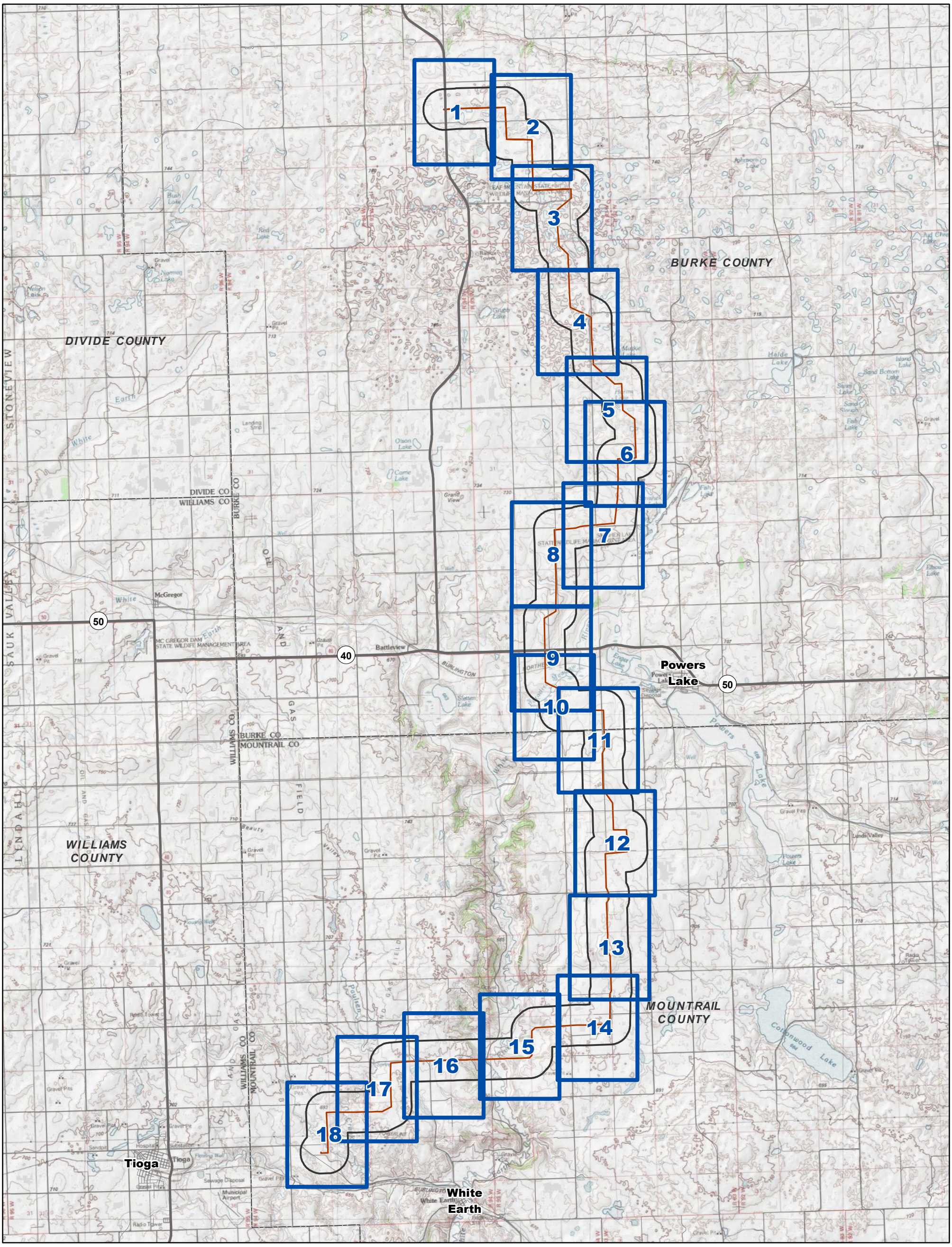




Site Plan Detail
Index Map (Topographic)

Northern Divide 345-kV Transmission Line

Burke and Mountrail Counties, North Dakota

N W E S

0 1 2 Miles

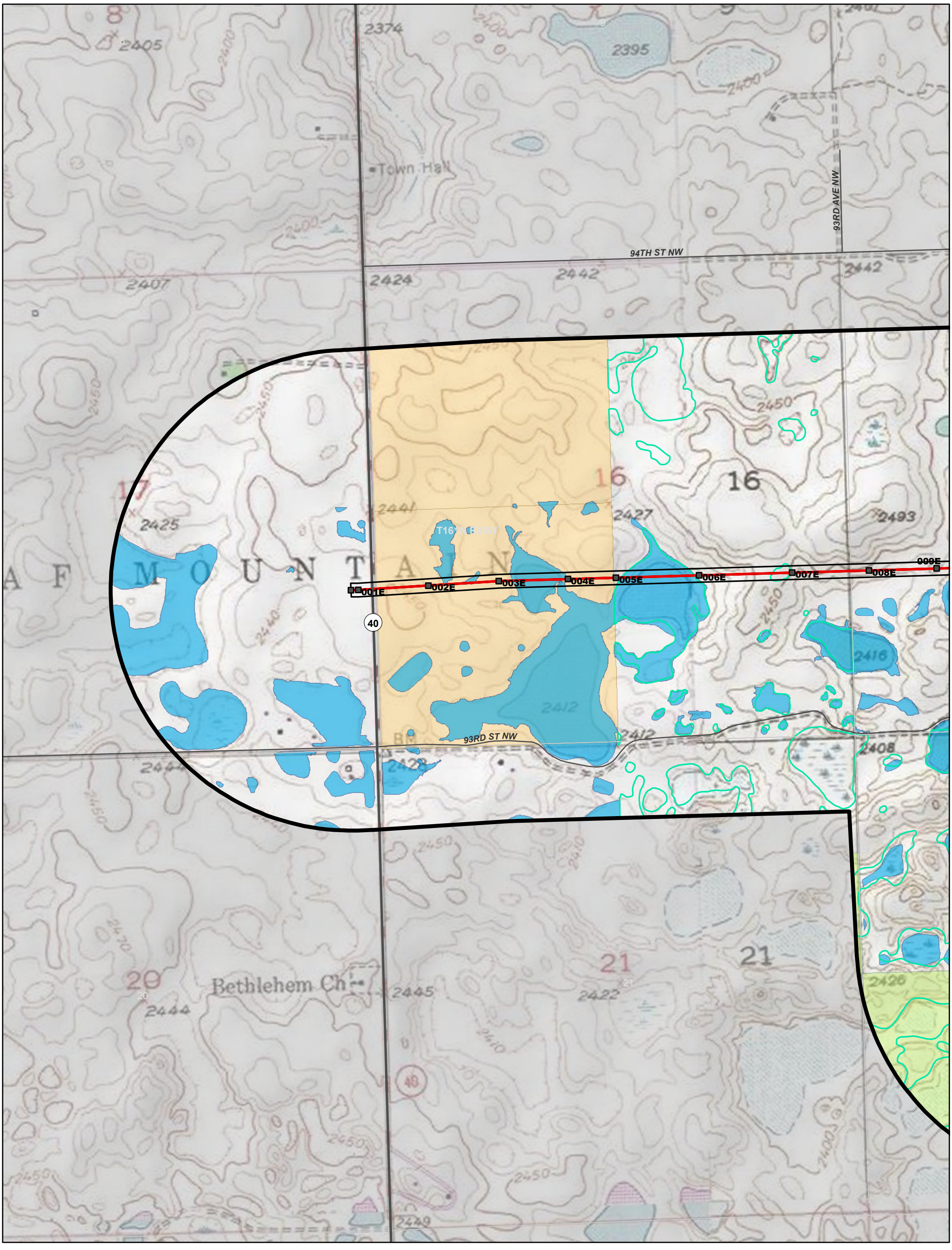
AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary
- Map Series Page

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Project Route



Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 1 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

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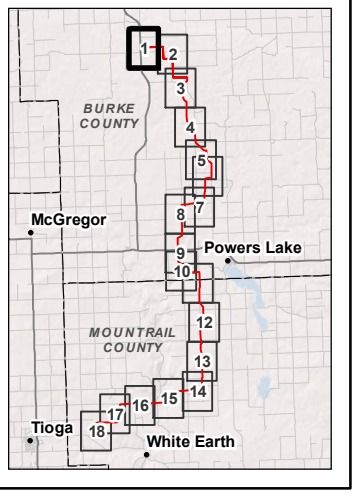

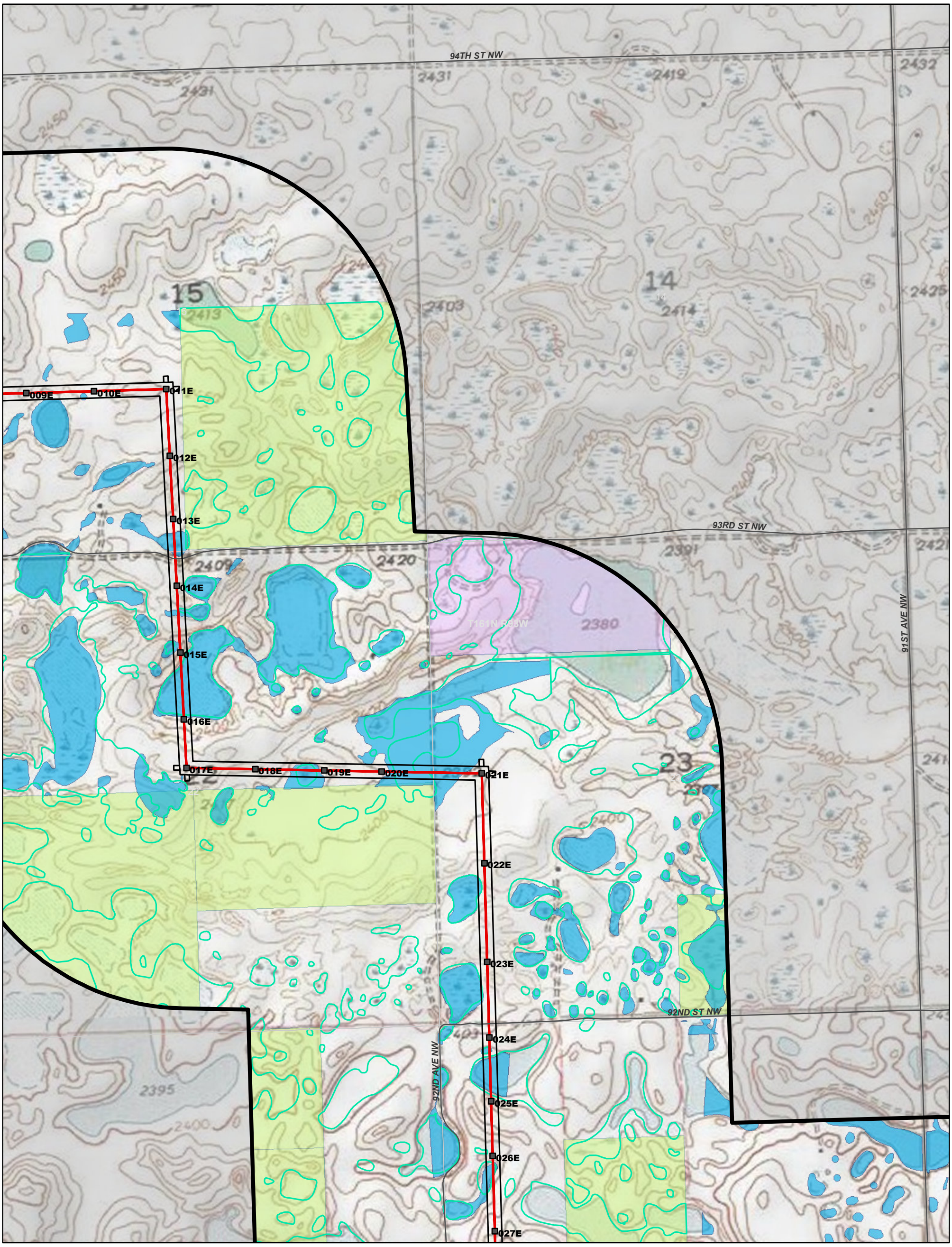

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 2 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- Private Land Open to Sportsmen
- USFWS Grassland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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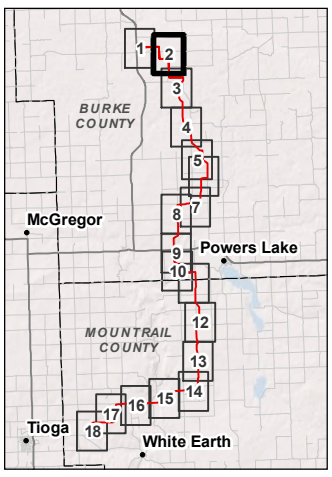

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 3 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure
- Pulling Loctation

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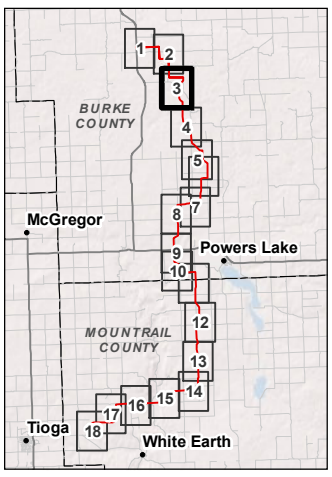

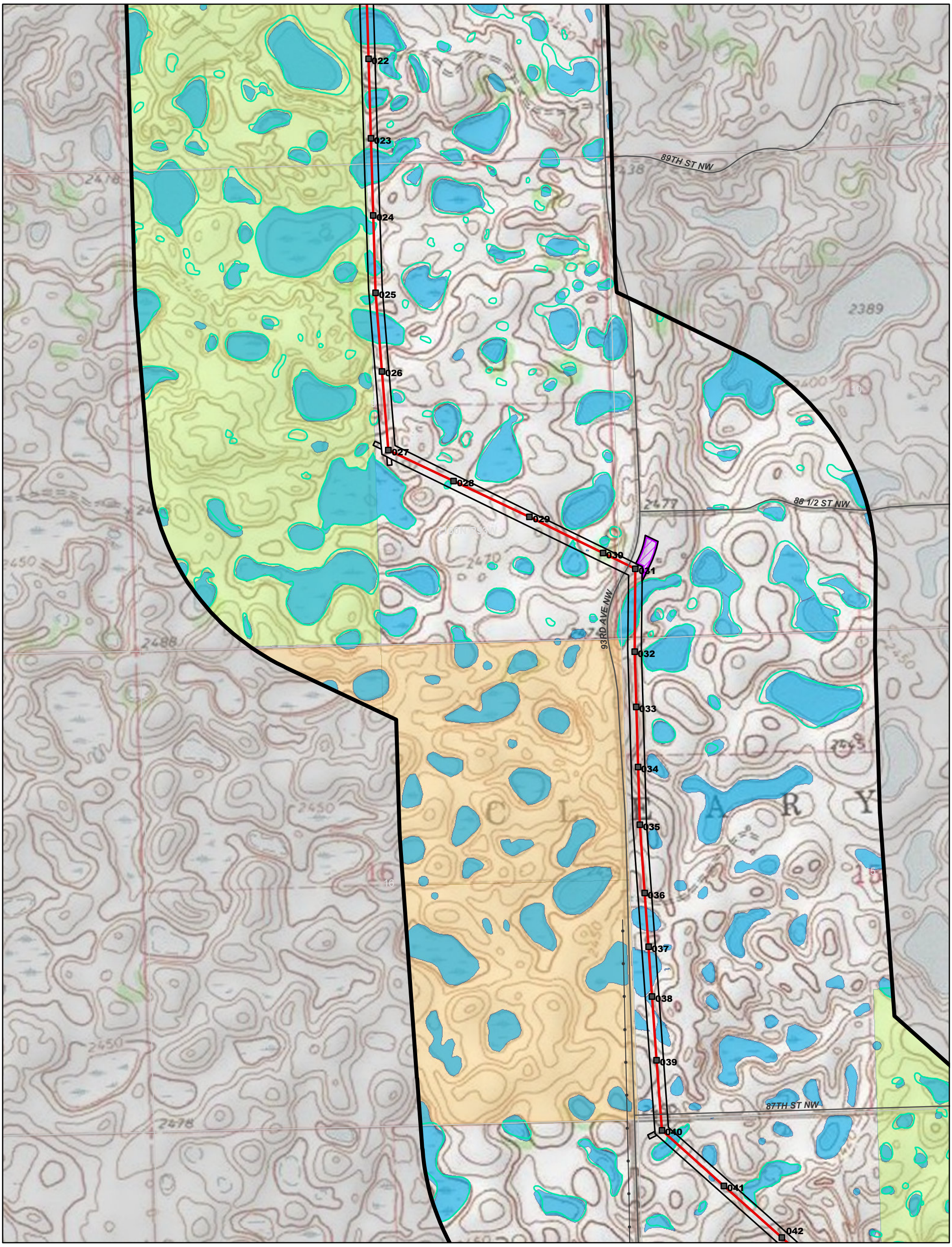

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 4 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure
- Pulling Loctation

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

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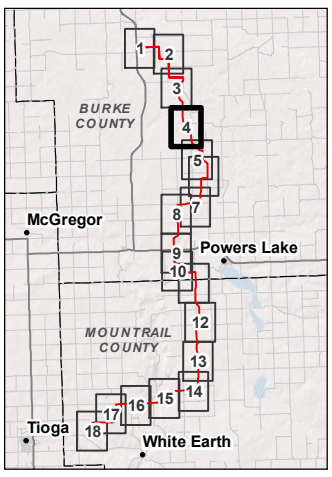

Site Plan Detail (Topographic)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 5 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land
- USFWS Grassland Easement

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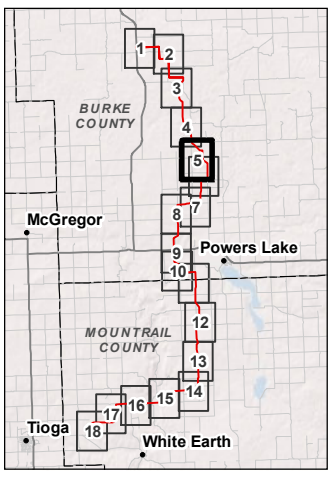

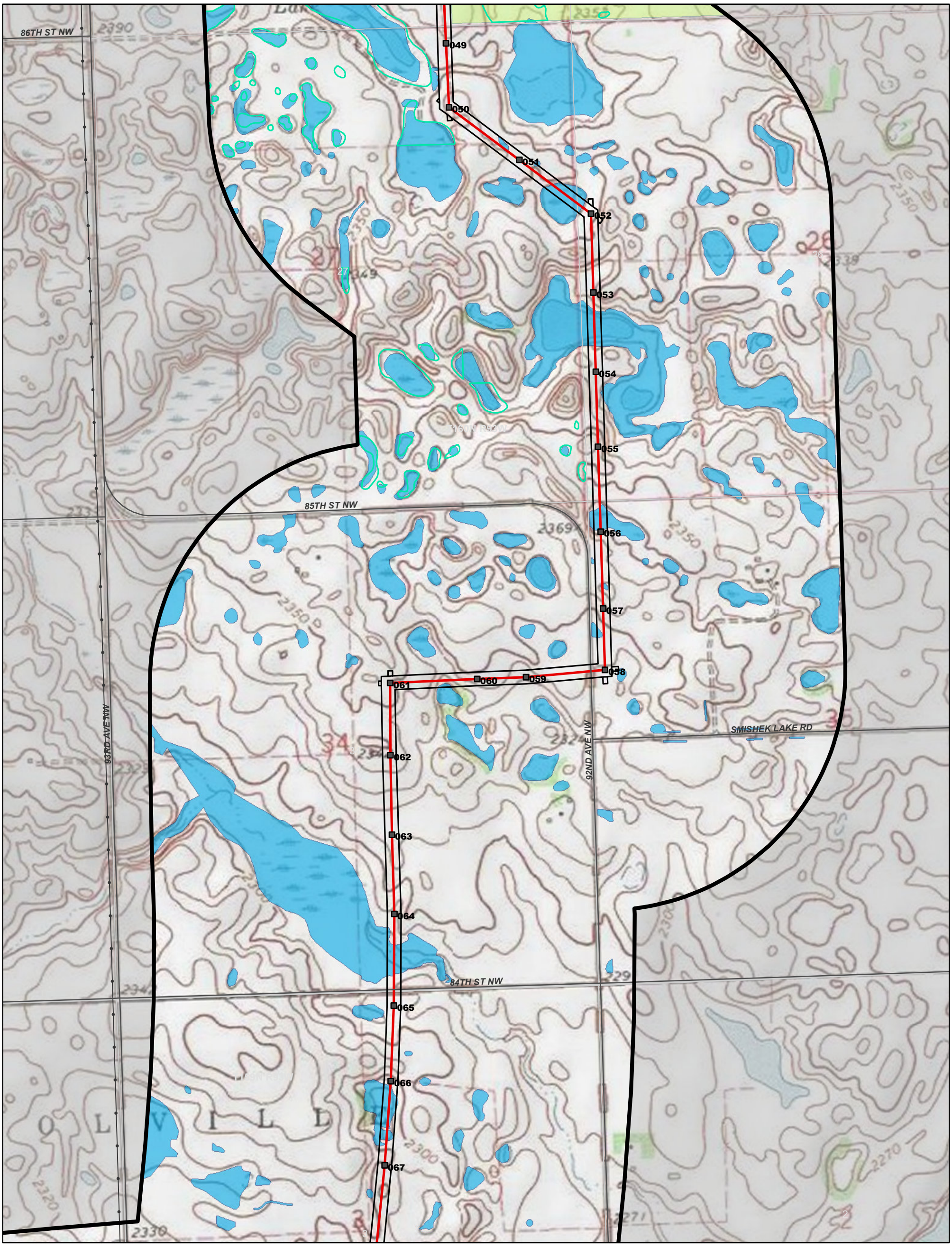

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 6 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- USFWS Grassland Easement

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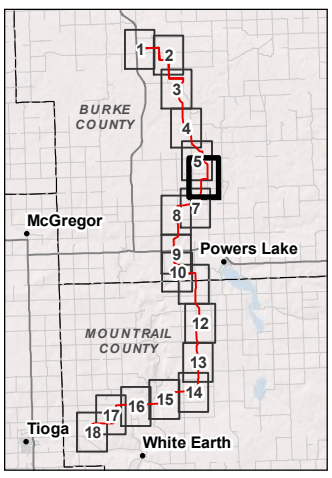

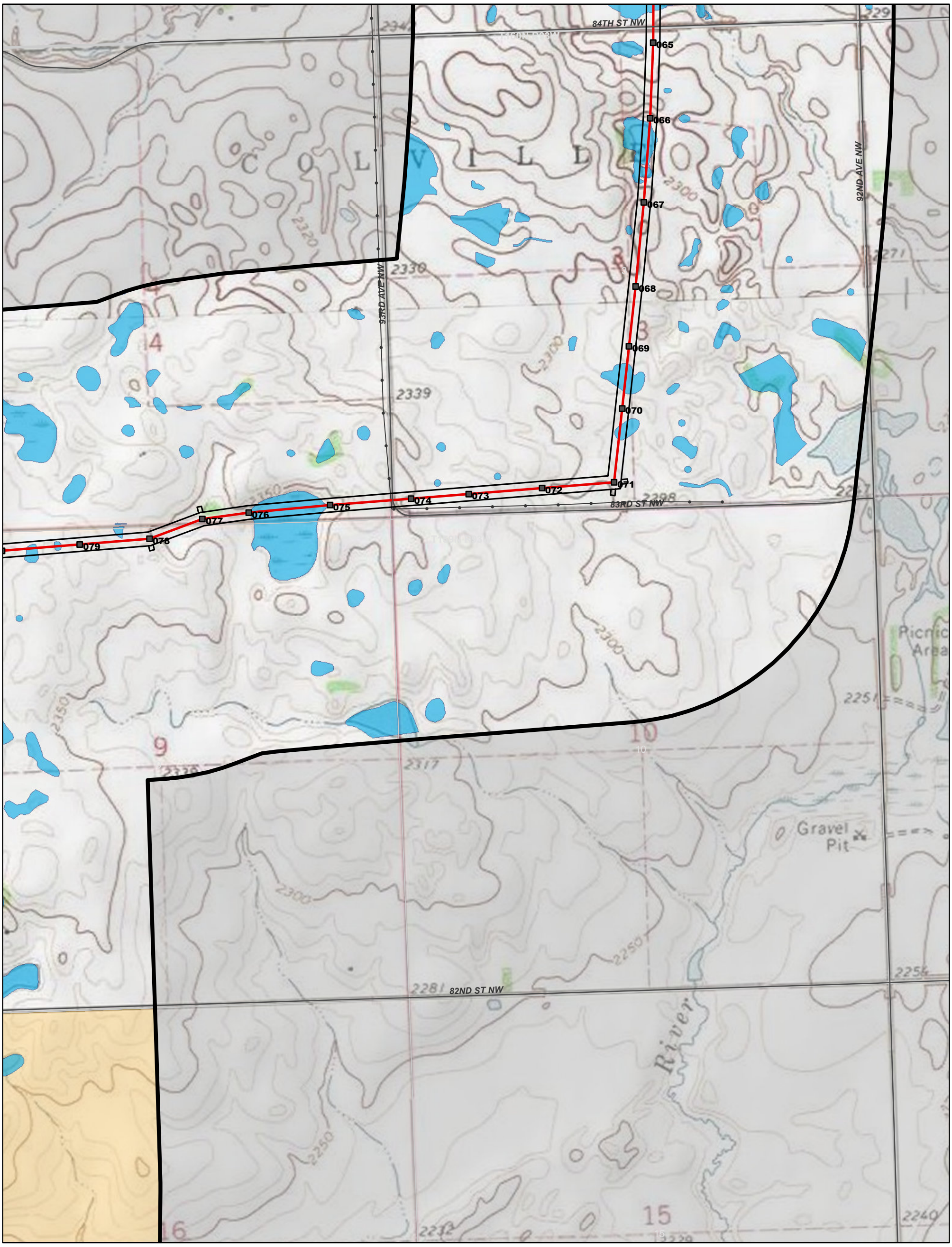

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 7 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- State Trust Land

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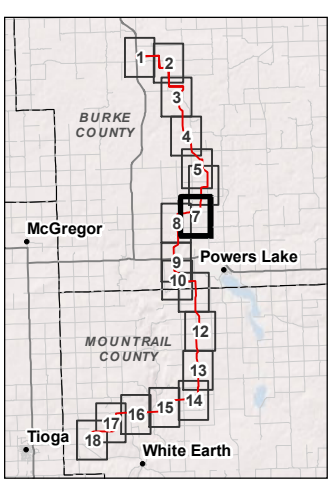

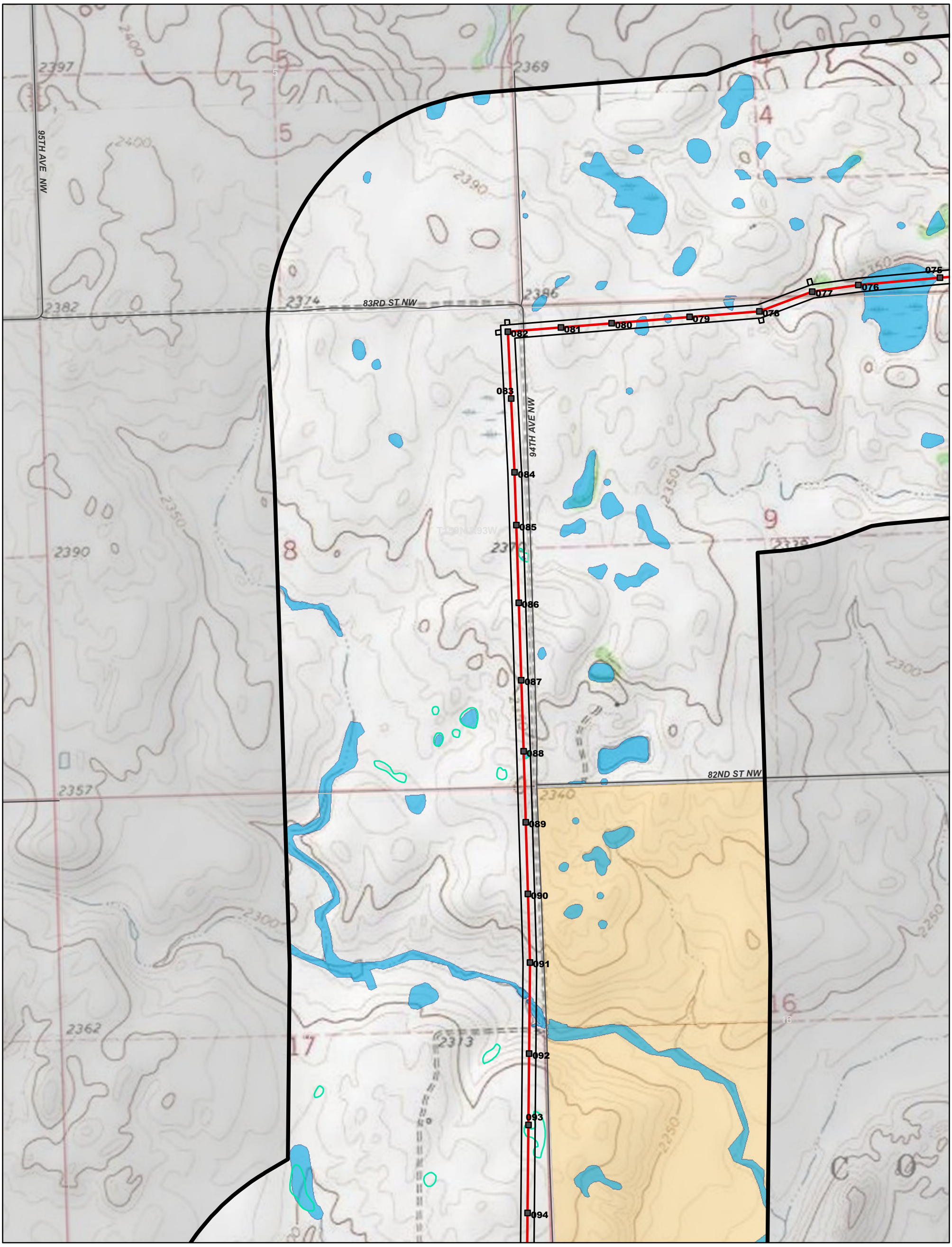

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 8 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- State Trust Land

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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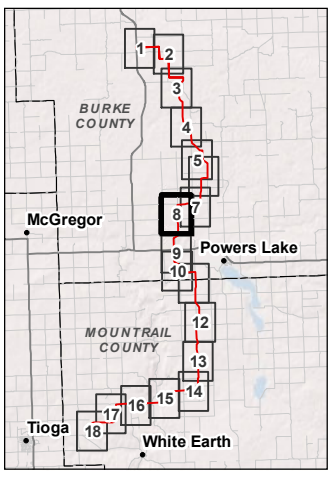

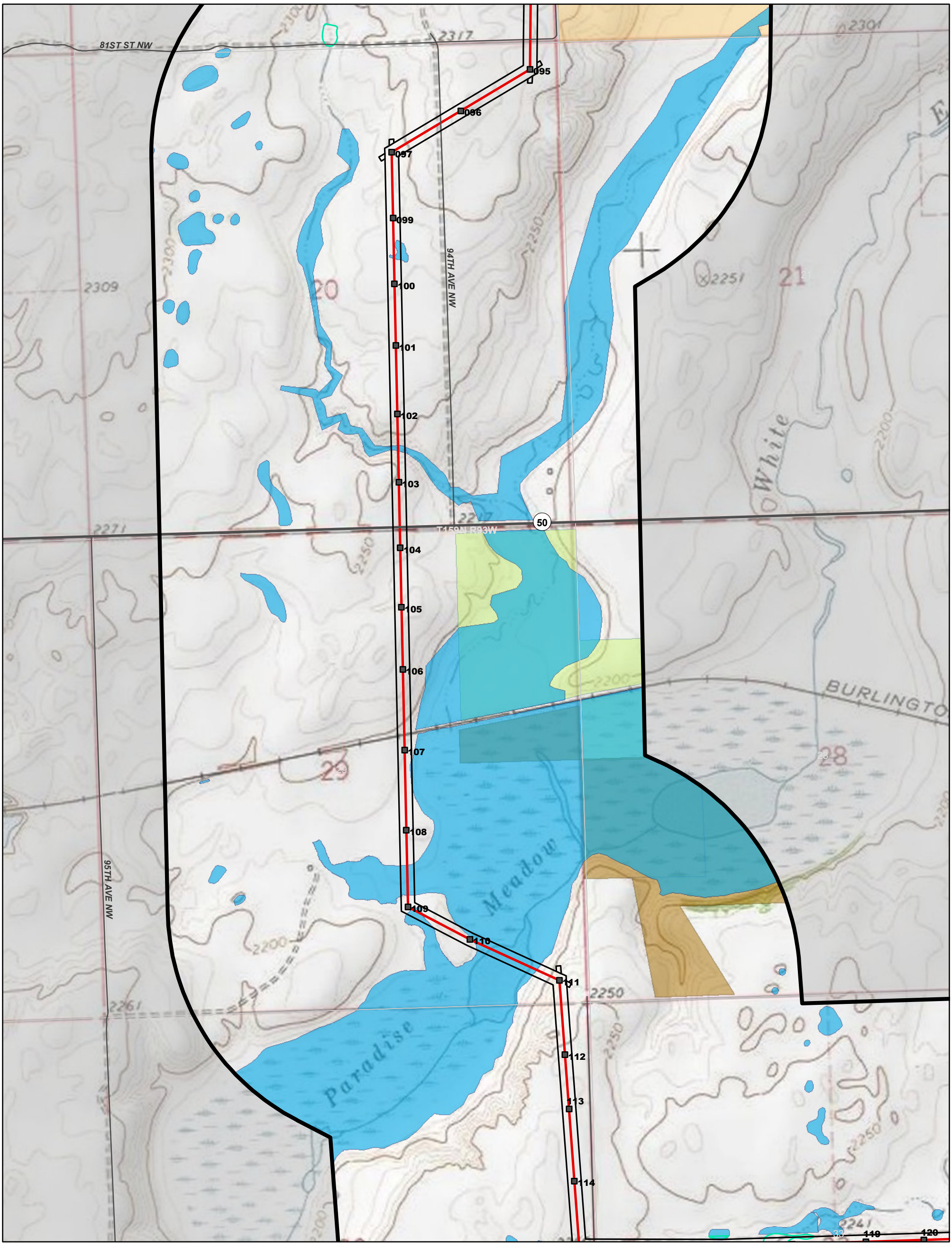

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 9 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area
- State Trust Land
- USFWS Grassland Easement

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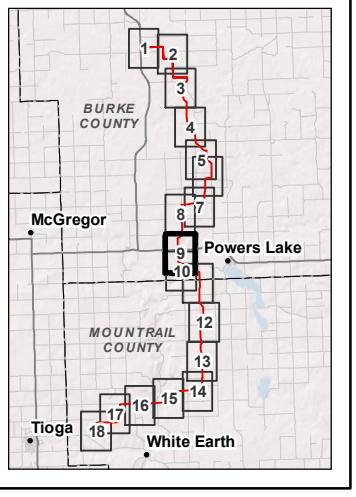

Site Plan Detail (Topographic)

Northern Divide
345-kV Transmission Line
Burke and Mountrail
Counties, North Dakota

Map 10 of 18

N S E W

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area
- USFWS Grassland Easement

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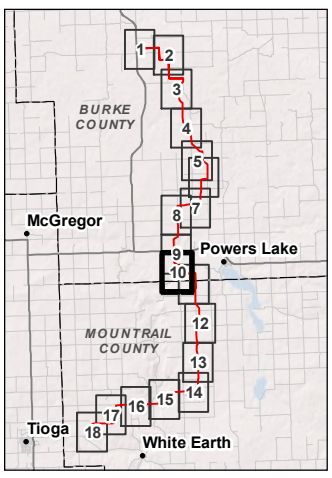

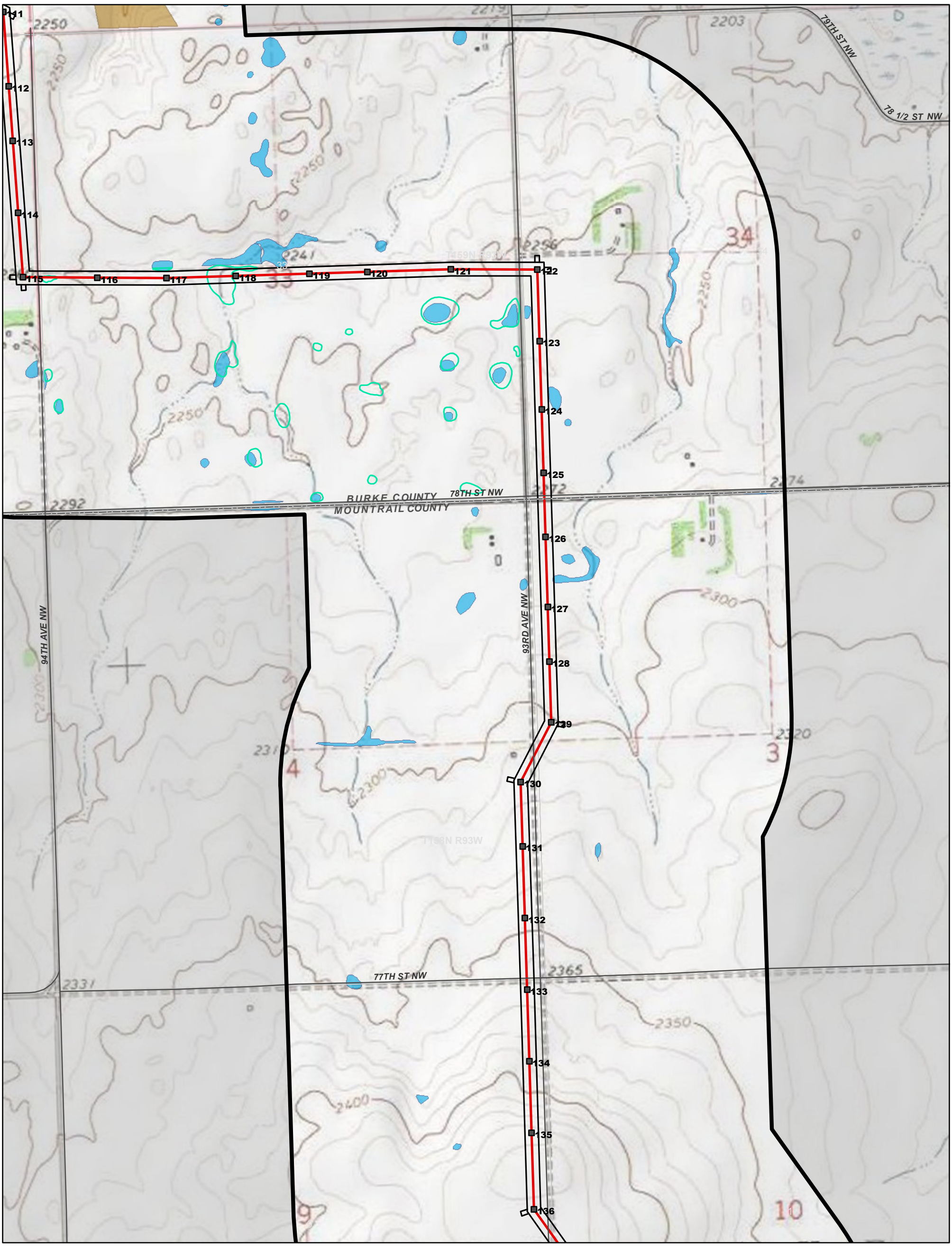

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 11 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement
- Waterfowl Production Area

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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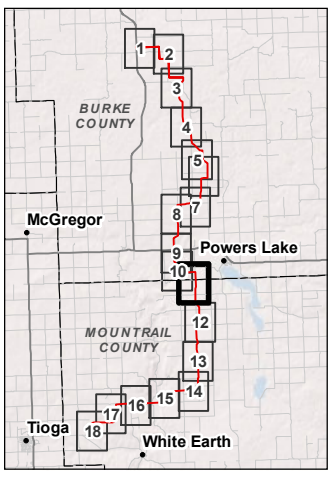

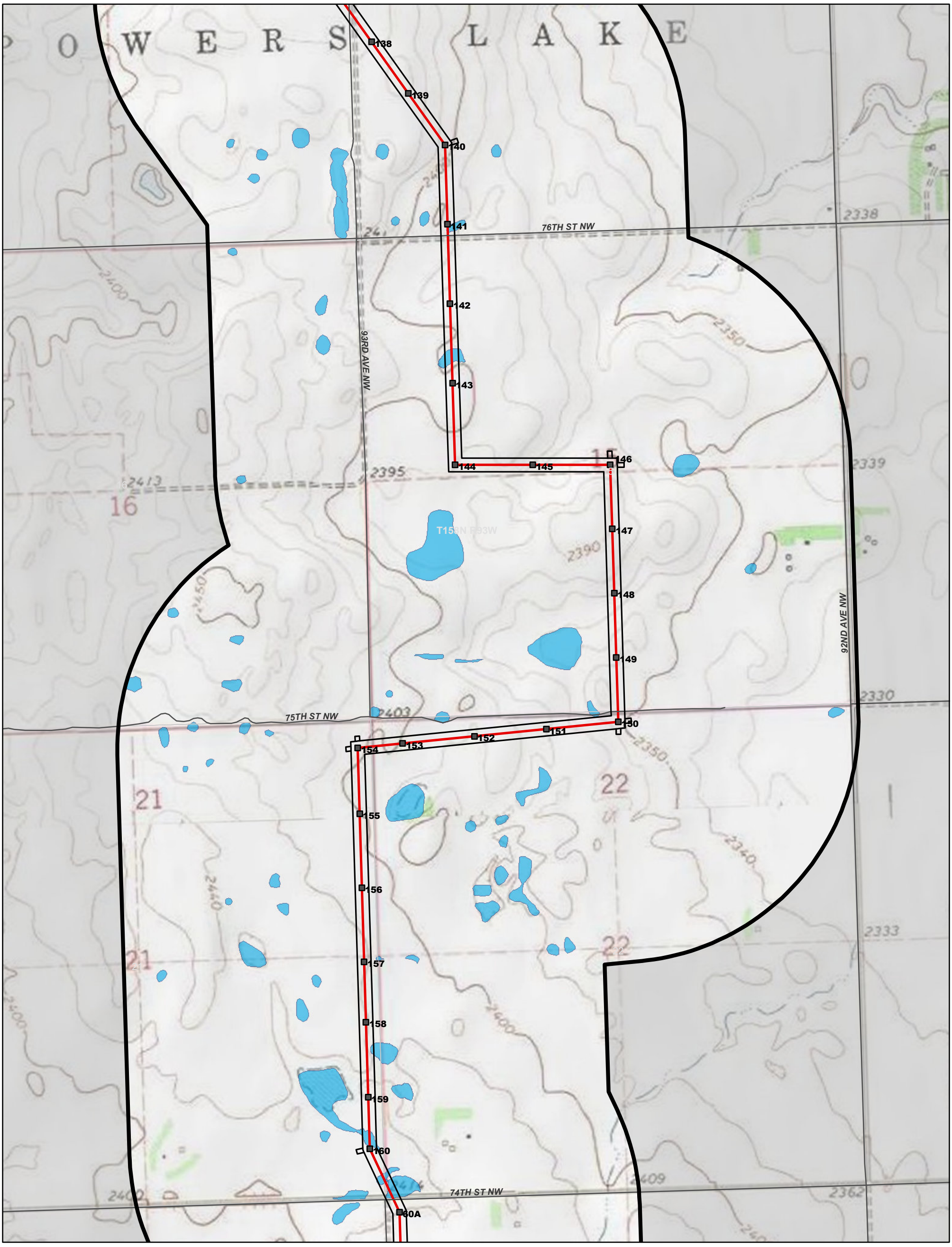

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 12 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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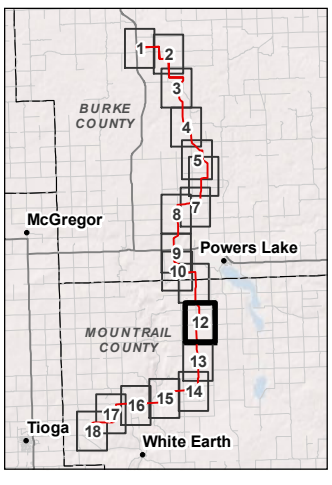

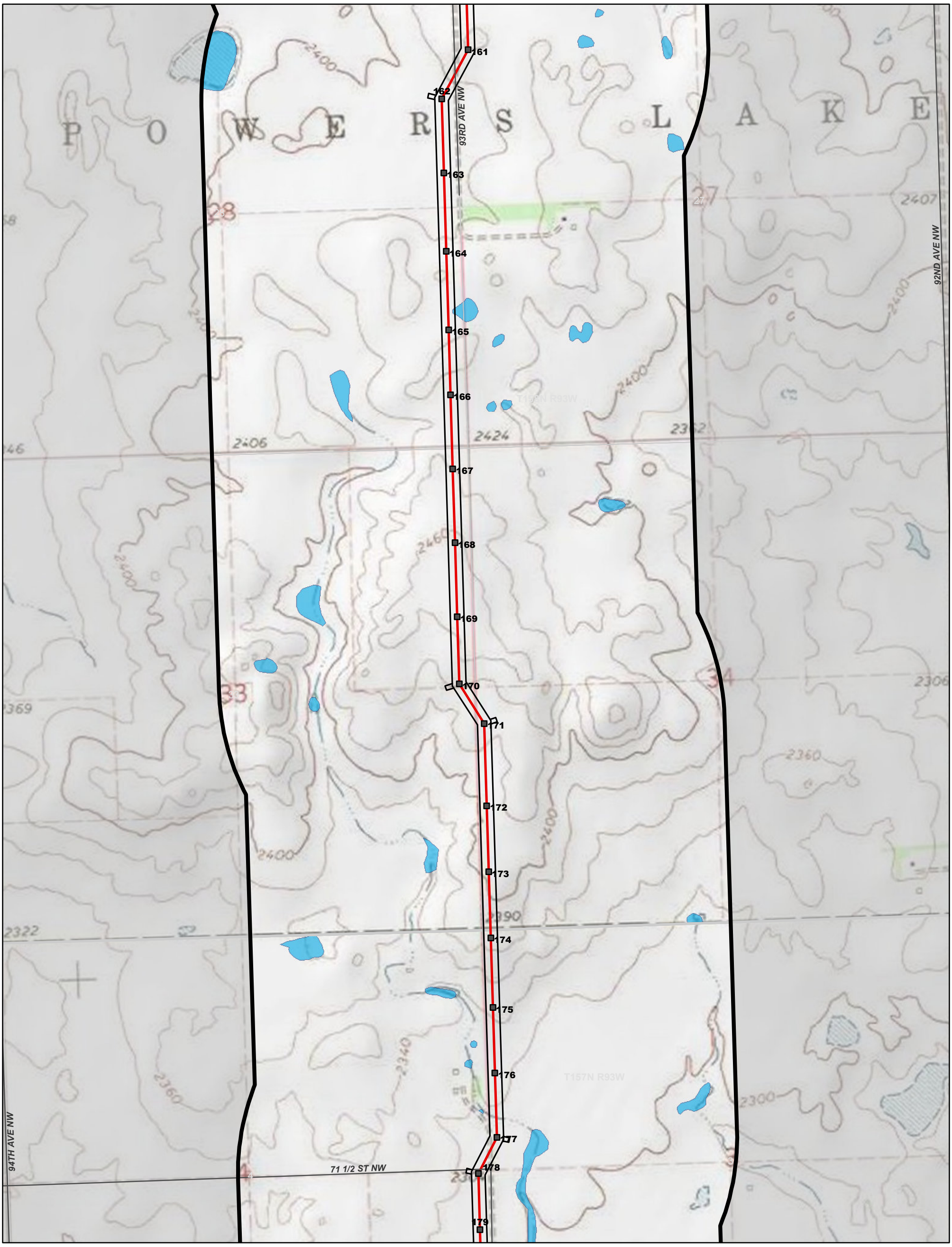

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 13 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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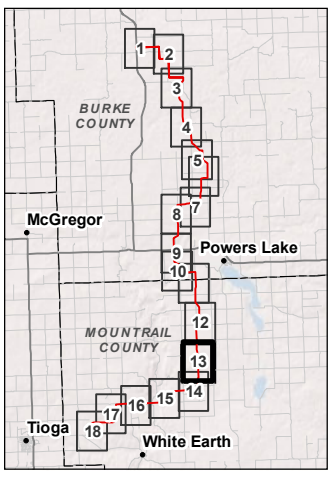

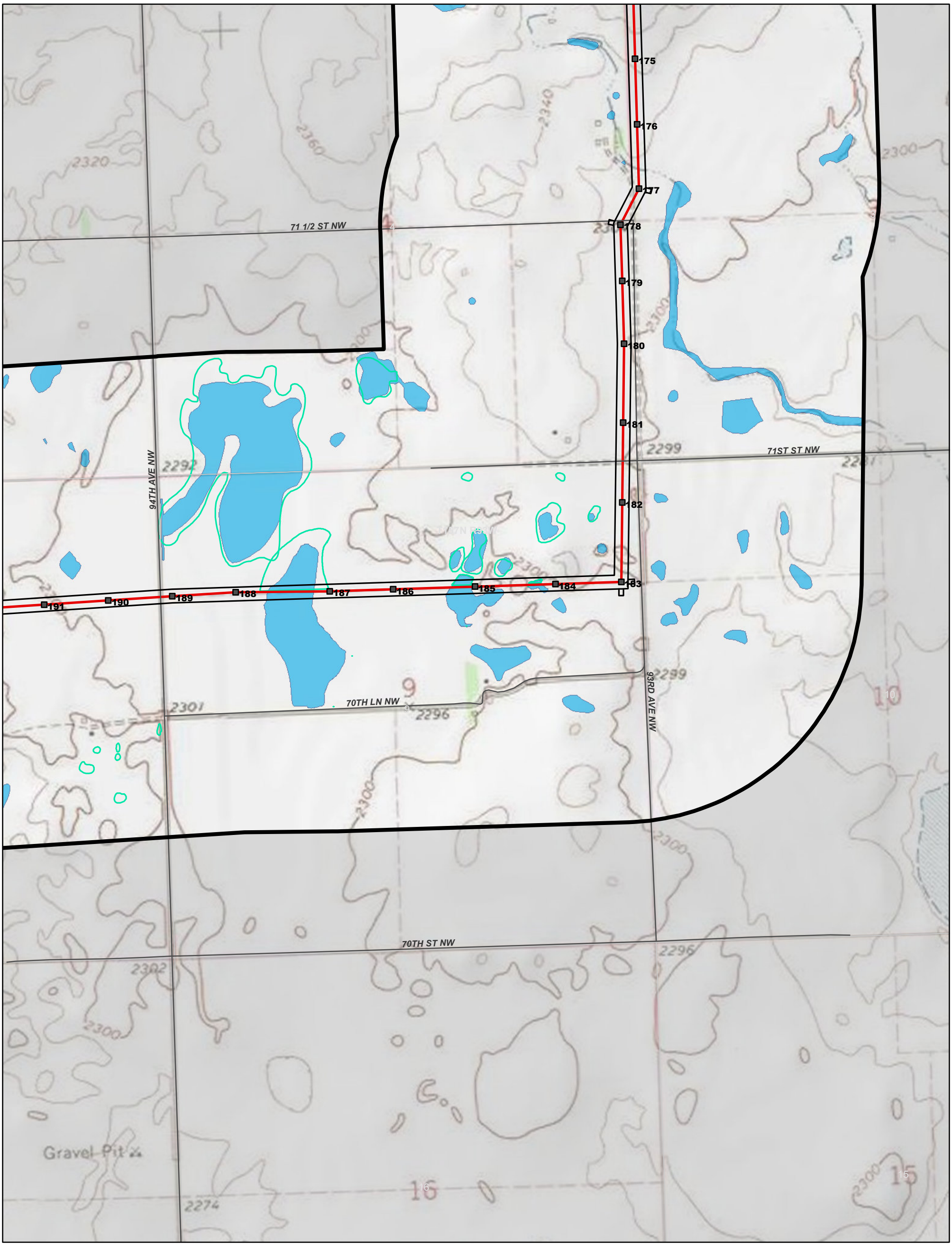

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 14 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement

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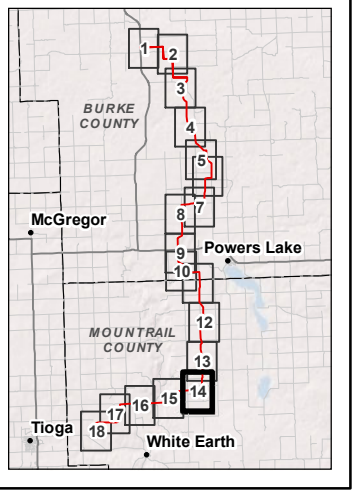

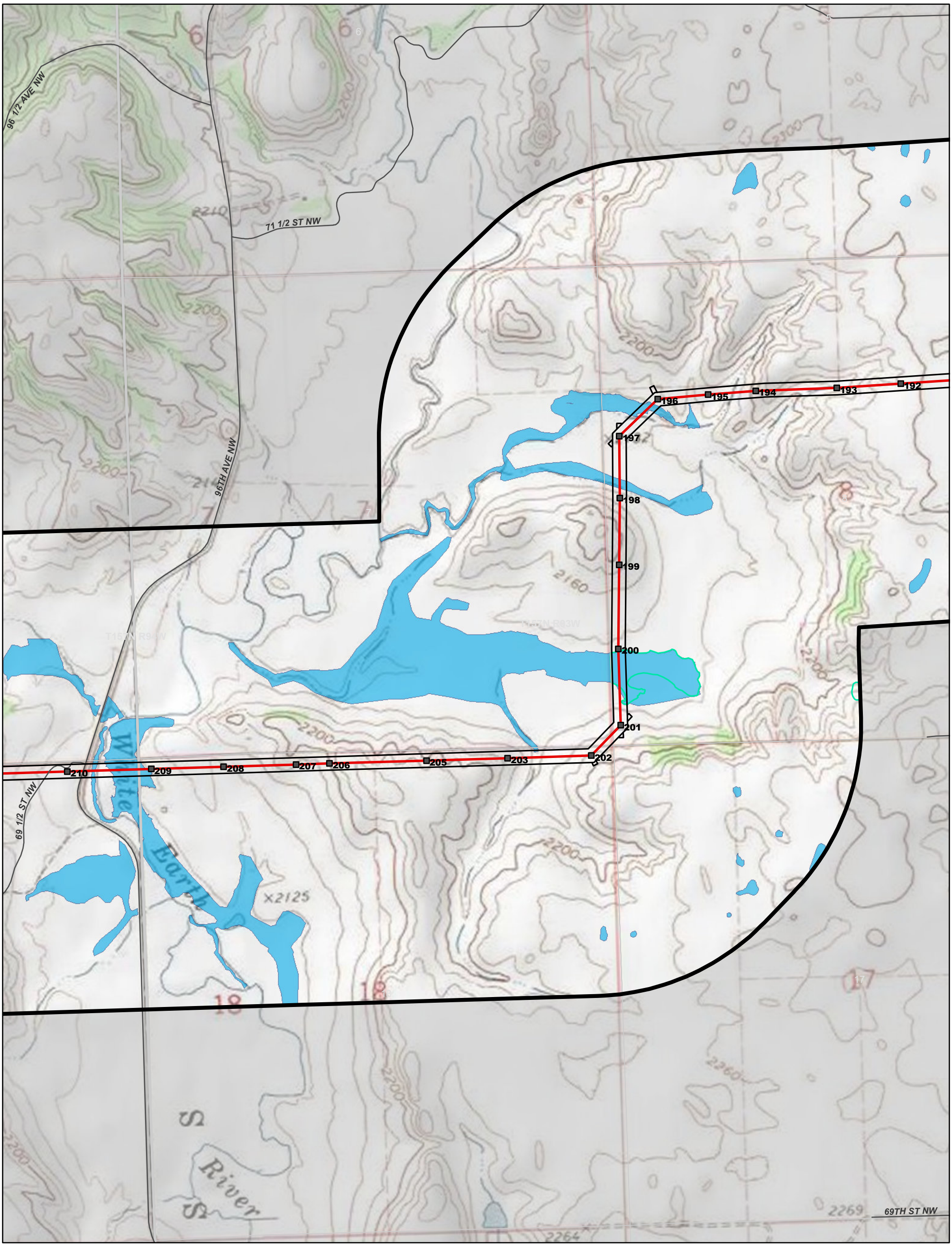

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 15 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- USFWS Wetland Easement

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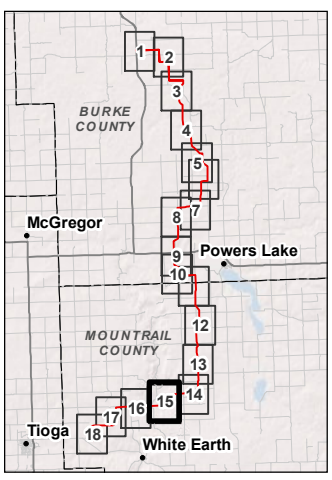

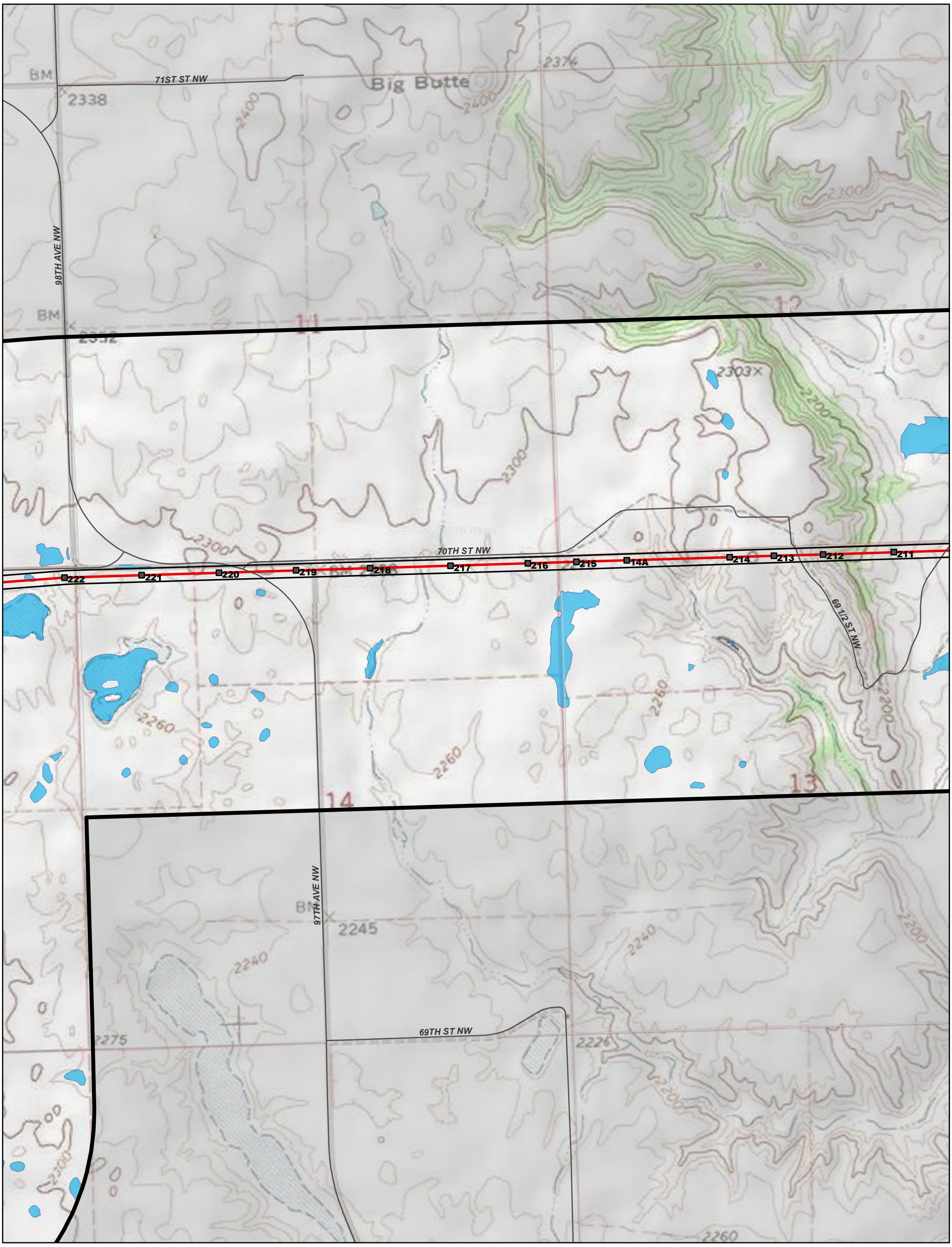

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 16 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure
- Delineated Wetland

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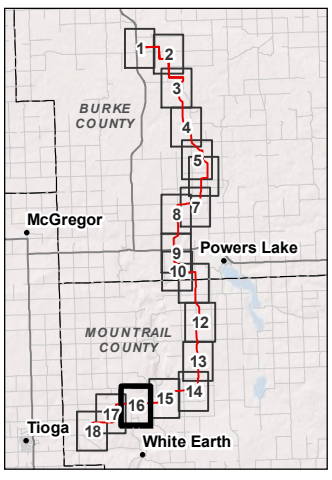

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 17 of 18

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- Private Land Open to Sportsmen
- State Trust Land

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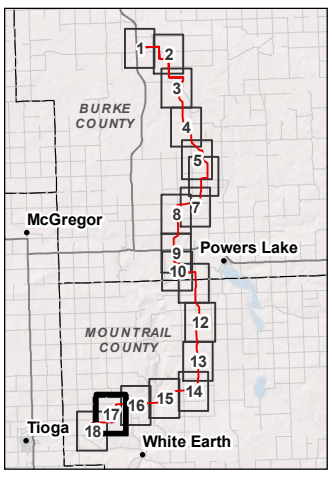

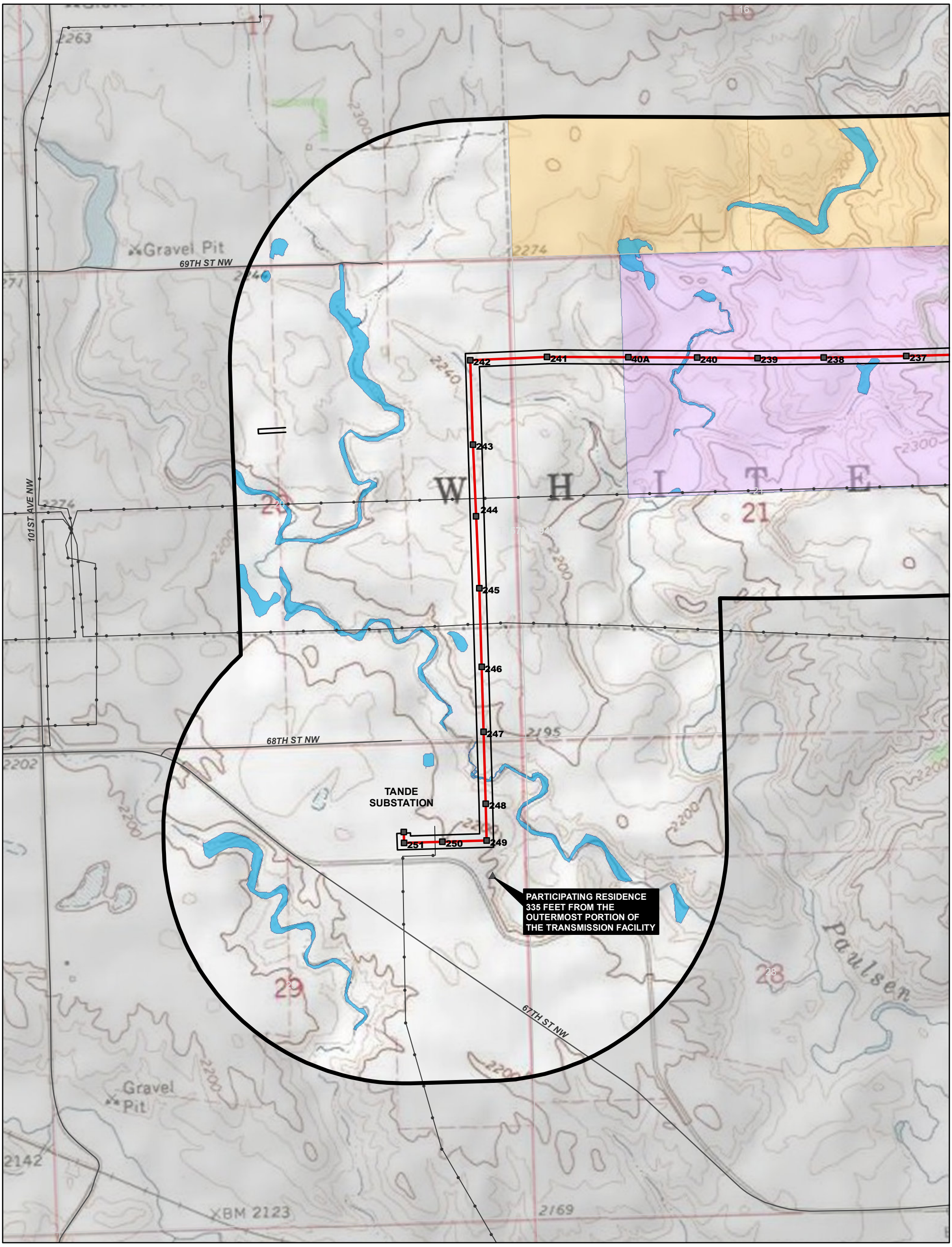

Site Plan Detail (Topographic)

Northern Divide 345-kV Transmission Line
Burke and Mountrail Counties, North Dakota

Map 18 of 18

N W E S

0 500 1,000 Feet

AECOM

Legend

- County Road
- County Boundary
- PLSS Township Boundary
- PLSS Section Boundary
- Existing Transmission Line

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

- Delineated Wetland
- Private Land Open to Sportsmen
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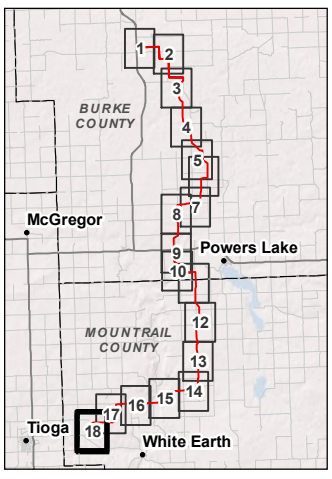

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Architectural History Survey Report Summary

To	Northern Divide Wind, LLC
Subject	Northern Divide Wind Energy Center Class II Architectural Resources Inventory Summary Burke and Divide Counties, North Dakota
From	AECOM
Date	February 3, 2020

Introduction and Purpose

Northern Divide Wind, LLC (Northern Divide Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC, proposes to develop the Northern Divide Wind Energy Center (Project) in Burke County, in northeastern North Dakota. The Project consists of up to 74 turbines, access roads, underground electrical collection systems, collection substations, an operations and maintenance building, meteorological evaluation towers, a construction laydown area, and a batch plant.

The Project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (Case No. PU-19-376); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code 49-22-09. Based on consultation with the SHSND, the Architectural Survey Corridor (Survey Corridor) was defined as all areas within two miles of the nearest turbine and is based on the locations of turbines within the proposed turbine layout dated November 18, 2019. The purpose of this investigation is to facilitate the SHSND review by documenting the aboveground historic buildings and structures within the Survey Corridor defined for this Project. No Architectural Survey was required by SHSND for the Project transmission line (Attachment A).

Methods

As the Project is designed to avoid all direct effects to architectural sites, only indirect visual effects were considered. Based on guidance from the SHSND, the relationship between the Project and the view toward a property from the main access point to said property was considered. All accessible public rights-of-way (ROW) within this area were traveled during the survey described in this report. Where AECOM received permission, private property was entered so that buildings could more closely be examined and documented.

Results

A previous Class II inventory was completed by Metcalf Archaeological Consultants, Inc (Metcalf) in 2018. During this survey, a total of 45 new architectural resources were recorded. Based on an updated Survey Corridor from a new 2019 Northern Divide Project Area, AECOM completed a second round of Class II Inventory in November 2019. During the survey, an AECOM architectural historian identified 99 previously unrecorded architectural resources. Of these sites, 77 were documented on North Dakota Cultural Resources Survey (NDCRS) Architectural Site forms. The documented resources included homes, barns, silos, garages, sheds, livestock shelters, churches, grain bins, and schools. Four

previously recorded sites were re-evaluated during the survey, and updated NDCRS forms were submitted. Seventeen of the previous Metcalf Class II resources remained within the current Survey Corridor. Due to their recent recordation, these sites were not updated or re-evaluated during the AECOM survey. NDCRS forms were not completed for 22 resources, which were determined to be entirely modern in nature; however, these will briefly be discussed in the report. Three resources noted during desktop review were documented in the field as completely collapsed and were recorded as site leads on NDCRS historical archaeological forms. A further five areas observed during desktop review were removed from the architectural inventory when field survey revealed they were not architectural in nature.

A total of 111 sites were surveyed or evaluated by an architectural historian during this reconnaissance level architectural inventory. It is AECOM's recommendation that one of the documented sites, a church, is eligible for the National Register of Historic Places (NRHP). Further, one site updated by AECOM, a fourteen-sided barn, is listed in the NRHP.

The eligible resource, South St. Olaf's Church, was constructed by Norwegian settlers in the early 1900's. The Romanesque style church is recommended eligible under criteria A and C, for its connection to early settlement traditions in Burke County and its distinctive design characteristics. The church is located approximately 1.6 (mi) mi from the closest turbine. The Neils Nielson Fourteen-Sided Barn was constructed in 1914 and listed in the NRHP in 1986. The barn is listed under Criterion C, as a representative example of the round barn style and the popularity of pre-cut kits for construction. The barn is located approximately 1.3 mi from the closest turbine.

As the Project has been designed to avoid all direct effects to historical resources, only indirect visual effects to these two properties were considered. Based on methods and guidance from the SHSND, AECOM assessed the views of both the property and the Project from each site's main access point. Both sites are situated relative to the Project in such a way that a view of both the property and the Project will likely be possible from the main access point to the property. Northern Divide Wind is in consultation with the North Dakota State Historic Preservation Office (NDSHPO) to determine if the Project would have indirect effects to the barn and church that would diminish their eligibility for listing on the NRHP.

The Class II report will be submitted to the NDSHPO and concurrence will be obtained prior to construction of the Project. Once the NDSHPO concurrence letter is received it will be submitted to the Commission.

January 24, 2020

Melinda McCarthy
AECOM
1000 E Calgary Ave, Ste 1
Bismarck, ND 58503

Dear Ms. McCarthy,

Pursuant to our conversation in my office the other day, this letter is to acknowledge the North Dakota State Historic Preservation Office does not require a viewshed analysis for the project NDSHPO Ref #19-0574: Northern Divide 345kV Transmission Line in Burke and Mountrail Counties, ND provided it takes place in the location and manner described in the documentation.

Thank you for the opportunity to review this project. If you have any questions please contact Lorna Meidinger, Historic Preservation Specialist at (701) 328-2089, e-mail lbmeidinger@nd.gov

Sincerely,

for Claudia J. Berg
State Historic Preservation Officer
(North Dakota)

19-0574

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Archaeological Survey Report Summary

To	Northern Divide Wind, LLC
Subject	Northern Divide Wind Energy Center Class III: Intensive Archaeological Resources Inventory Burke and Divide Counties, North Dakota
From	AECOM
Date	February 3, 2020

Introduction and Purpose

Northern Divide Wind, LLC (Northern Divide Wind), a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC, proposes to construct the Northern Divide Wind Energy Center (Project), located approximately four miles (mi) (6.4 kilometer [km]) southwest of the city of Larson in Burke County, North Dakota. The Project consists of up to 78 turbines, access roads, underground electrical collection systems, collection substations, an operations and maintenance building, meteorological evaluation (Met) towers, a construction laydown area, and a batch plant.

The Project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (Commission) (Case No.: PU-19-376); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code 49-22-09. The purpose of this investigation is to provide the necessary information for the SHSND review by confirming the presence or absence of archaeological sites within the Survey Corridor, as more particularly described below.

AECOM completed a Class III Intensive Cultural Resource Inventory of approximately 1,218 acres between December 2017 and November 2018 (see North Dakota State Historic Preservation Office (NDSHPO) manuscript number 18240 for details (NDSHPO Reference No. 18-0733). The report for these inventories received SHSND concurrence in February 2019 (Attachment A).

The current Survey Corridor includes all changes since February 2019 that may be permanently or temporarily affected during construction of the Project and is based on:

- The turbine layout dated October 24, 2019;
- The service road layout dated November 18, 2019;
- The electrical collection line route layout dated November 18, 2019;
- The Met tower layout dated August 21, 2019; and,
- The crane path layout dated November 18, 2019.

For these Project facilities, AECOM surveyed:

- A 600-foot (ft) (182.88 meter [m]) diameter circular area centered on the proposed turbine locations;

- A 232 ft (70.7 m) corridor for the service roads;
- A 50 to 100 ft (15.24 m) corridor for the collection lines; and,
- A 600-ft (182.88 m) diameter circular area centered on the proposed Met tower locations.

Small shifts to previously surveyed access roads, collection lines, and turbines were also covered under this survey, which occurred between April 2019 and November 2019 and covered approximately 676 ac (1,668.4 ha). The combined Class III Intensive Cultural Resource Inventory is shown in Figure 1.

Results

The literature review identified 23 previously recorded archaeological sites or site leads within the current Survey Corridor. All of these resources are archaeological or historical archaeological site leads; none of these site leads have been formally evaluated for NRHP eligibility.

During the Class III Intensive Cultural Resource Survey, AECOM documented 12 archaeological sites including one Native American site, four Native American isolated finds, three Euro-American artifact scatters, and four Euro-American isolated finds. A total of 122 shovel test probes were completed in medium to high probability areas of the Survey Corridor with low ground surface visibility.

A survey for Sites of Religious and Cultural Significance to Tribes (SRCSTT) was also undertaken for the updated Project by Traditional Cultural Surveyors (TCS) from the Rosebud Sioux, the Spirit Lake of Fort Totten, and the Turtle Mountain Chippewa Tribes. Four SRCSTT were documented and recorded on NDSHPO Cultural Heritage Forms by AECOM on behalf of the participating tribes.

Recommendations

AECOM recommends avoidance of all cultural resources that are potentially eligible for listing on the National Register of Historic Places (NRHP), sites deemed culturally sensitive, or sites that have not been evaluated for eligibility following the guidelines outlined by the NDSHPO. For this investigation, Northern Divide Wind has committed to avoiding effects to archaeological resources that could be considered archaeologically or culturally significant. In the absence of a formal evaluation of the significance of the identified archaeological resources, AECOM recommends that resources, with the exception of isolated finds, be avoided. It is AECOM's understanding that the current proposed infrastructure incorporates all recommended avoidance buffers. If the Project is redesigned in such a way that a resource cannot be avoided, AECOM recommends additional investigation that would constitute formal evaluation of site significance.

AECOM is not recommending avoidance for all four Native American isolated finds (Table 1), all four historic Euro-American isolated finds (Table 2), and all three historic Euro-American artifact scatters (Table 3), as it was determined through pedestrian survey and shovel test probes that the areas contained low artifact density with little to no potential to produce intact subsurface deposits or important information.

Table 1: Native American Isolated Finds Not Recommended for Avoidance

32BKX1057	32BKX1058	32BKX1065	32BKX1066

Table 2: Historic Isolated Finds Not Recommended for Avoidance

32BKX1059	32BKX1061	32BKX1062	32BKX1063

Table 3: Historic Artifact Scatters Not Recommended for Avoidance

32BK286	32BK287	32BK291

AECOM is recommending a 50-foot avoidance buffer for one Native American site (Table 4).

Table 4: Native American Site Recommended for a 50-foot Avoidance Buffer

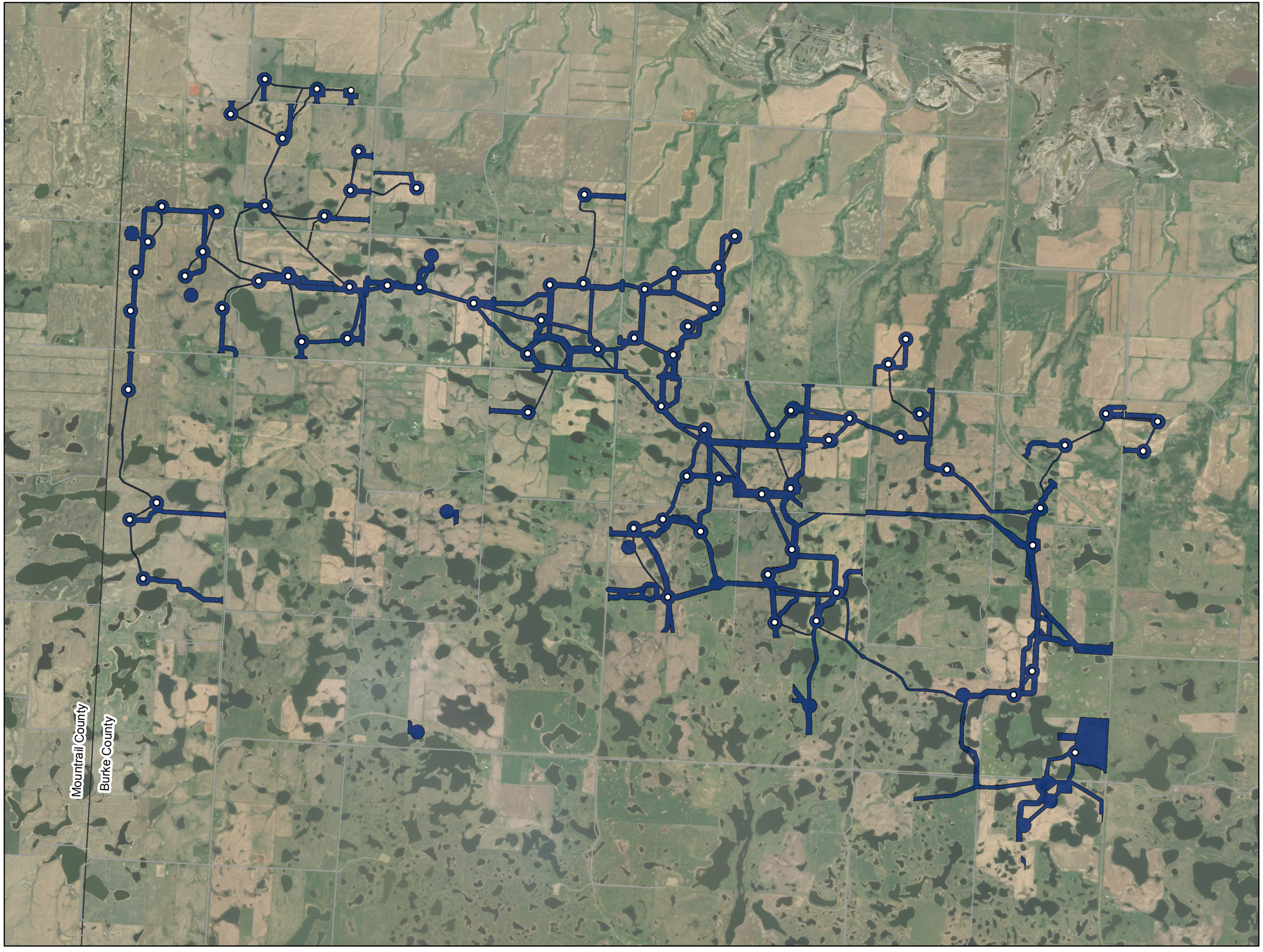
32BK288

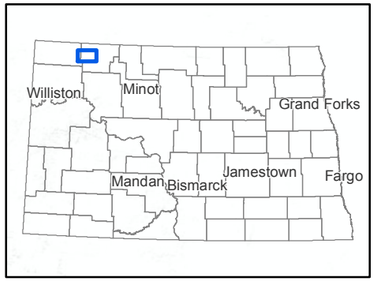
Per the recommendation of the participating tribes, all SRCSTT should be considered eligible for the NRHP; avoidance is recommended (Table 5).

Table 5: SRCSTT Recommended for Avoidance

CHFBK128	CHFBK129	CHFBK130	CHFBK131

If these sites and their associated avoidance buffers can be avoided during construction, then AECOM recommends a determination of No Historic Properties Affected as documented and mapped in the current Class III: Intensive Cultural Resources Inventory report. If areas beyond the combined Survey Corridor are to be used during construction, AECOM recommends completion of an addendum Class III cultural resources inventory to determine the presence or absence of cultural resources within these areas. The Class III report will be submitted to NDSHPO and concurrence will be obtained prior to construction of the Project. Once the NDSHPO concurrence letter is received it will be submitted to the Commission.





Legend

- Turbines
- County Road
- County Boundary
- Survey Corridor

N
W E
S

0 0.3 0.6 1.2 Miles

Figure 1
Cultural Survey Corridor
Northern Divide Wind
Cultural Resources Inventory
Burke County, ND

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February 22, 2019

Ms. Melinda McCarthy, MA, RPA
Principal Investigator
AECOM
1000 East Calgary Avenue, Suite 1
Bismarck, ND 58503

ND SHPO Ref: 18-0733 PSC "Burke County Wind Energy Center: A Class III Cultural Resource Inventory in Burke County, North Dakota"

Dear Ms. McCarthy,

We reviewed ND SHPO Ref: 18-0733 PSC "Burke County Wind Energy Center: A Class III Cultural Resource Inventory in Burke County, North Dakota," and find it acceptable. We concur with a "No Significant Sites Affected" determination for this project, provided the project remains as mapped and described in your AECOM report dated February 2019, and provided sites recommend for avoidance are avoided and monitored when needed.

Thank you for the opportunity to review this project. Please include the ND SHPO reference number listed above in any further correspondence for this specific project. If you have any questions, please contact Paul Picha at (701)-328-3574 or Susan Quinnell at (701) 328-3576 or squinnell@nd.gov.

Sincerely,

Claudia J. Berg
Director, State Historical Society of North Dakota

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Archaeological Survey Report Summary

To	Northern Divide Wind, LLC
Subject	Northern Divide 345-kV Transmission Line Class III: Intensive Archaeological Resources Inventory Summary Burke and Mountrail Counties, North Dakota
From	AECOM
Date	February 3, 2020

Introduction and Purpose

Northern Divide Wind, LLC (Northern Divide Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC, proposes to construct the Northern Divide Transmission Line (Project). The Project consists of approximately 41 miles (mi) of new 345-kilovolt (kV) overhead transmission line on leased private property in Burke and Mountrail Counties, North Dakota. Located approximately one mile west of Powers Lake, three miles east of Tioga, and 10 miles south of Columbus, the Project will convey power from the Northern Divide Wind Energy Center (Wind Energy Center) substation in Burke County to the interconnection point at the existing Tande Substation in Mountrail County.

The Project will require a Certificate of Corridor Compatibility and Route Permit from the North Dakota Public Service Commission (Case No.: PU-19-370); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code Section 49-22-09. The purpose of this investigation is to provide the necessary information for the SHSND review by confirming the presence or absence of archaeological sites within the survey corridor, which included a 200 foot (ft) or 60.96 meter (m) wide corridor around the proposed transmission line route, a 400 ft (121.92 m) diameter around proposed pole locations, a 30 acre (ac) or 12.14 hectare (ha) parcel which will serve as a substation and switch yard, and a number of 30 ft (9.14 m) wide off right-of-way access roads (Survey Corridor).

AECOM completed a Class III Intensive Cultural Resource Inventory on approximately 37 mi of the Project in November 2017 and December 2018 (NDSHPO Reference No. 18-0733). The report for these inventories received SHSND concurrence in February 2019 (Attachment A). The total area surveyed for the 2017-2018 Survey Corridor was 1,205.16 ac (487.71 ha). Further Class III inventories of an approximately 4-mile Project extension, small reroutes, and off right-of-way access roads were completed in 2019 (NDSHPO Ref. No. 19-0490). The additional Survey Corridor totaled 569.4 ac (230.43 ha). The combined Class III Project Survey Corridor is shown in Figures 1 and 2, and the total area surveyed comprises 1,774.56 ac (717.98 ha), which encompasses the full extent of the 41 mi Project.

Results

A Class I: Literature Review was performed by Atwell, LLC in February 2017 and updated reviews were completed by AECOM in February 2018, December 2018, and December 2019. The final literature review identified 17 Native American site leads and one Euro-American site lead partially within the additional Project Survey Corridor.

During the additional Class III Intensive Cultural Resource Inventory, AECOM documented 12 archaeological sites including four Native American sites, three Native American isolated finds, three Native American site leads, one historic Euro-American abandoned farmstead, and one Euro-American isolated find. A total of 144 shovel test probes were completed in medium to high probability areas of the Survey Corridor with low ground surface visibility.

A survey for Sites of Religious and Cultural Significance to Tribes (SRCSTT) was also undertaken for the Project by Traditional Cultural Surveyors (TCS) from the Rosebud Sioux, Spirit Lake of Fort Totten, and Turtle Mountain Band of Chippewa Tribes. Twenty-eight SRCSTT were documented and recorded on North Dakota State Historic Preservation Office's (NDSHPO) Cultural Heritage Forms by AECOM on behalf of the participating tribes.

AECOM is not recommending avoidance for all three Native American isolated finds (Table 1) and the historic Euro-American isolated find (Table 2). The historic Euro-American abandoned farmstead also not recommended for avoidance (Table 3). It was determined through pedestrian survey and shovel test probes that these areas contained low artifact density with little to no potential for intact, stratified subsurface deposits and the sites were determined not eligible for the National Register of Historic Places (NRHP).

Table 1: Native American Isolated Finds Not Recommended for Avoidance

32MNX1042	32MNX1043	32MNX1044

Table 2: Historic Isolated Finds Not Recommended for Avoidance

32MNX1040

Table 3: Historic Sites Not Recommended for Avoidance

32BK289

AECOM is recommending avoidance with no additional buffer for one Native American site (Table 4) and three Native American site leads (Table 5). Extensive shovel test probing was completed along the boundary of the Native American site within the Project Right-of-Way and at the location of the closest infrastructure. As such, a firm site boundary has been established on these portions of the site. The site leads were documented while walking to and from the Survey Corridor and are not within the Project and therefore do not require avoidance buffers.

Table 4: Native American Site Recommended for Avoidance, No Buffer

32MN1578

Table 5: Native American Site Leads Recommended for Avoidance, No Buffer

32BKX1060	32BKX1064	32MNX1041

AECOM recommends a 50-foot buffer for two Native American sites (Table 6).

Table 6: Sites Recommended for a 50-foot Avoidance Buffer

32MN1577	32MN1580

AECOM is also recommending a 150-foot buffer on one Native American site (Table 7).

Table 7: Native American Site Recommended for a 150-foot Avoidance Buffer

32BK290

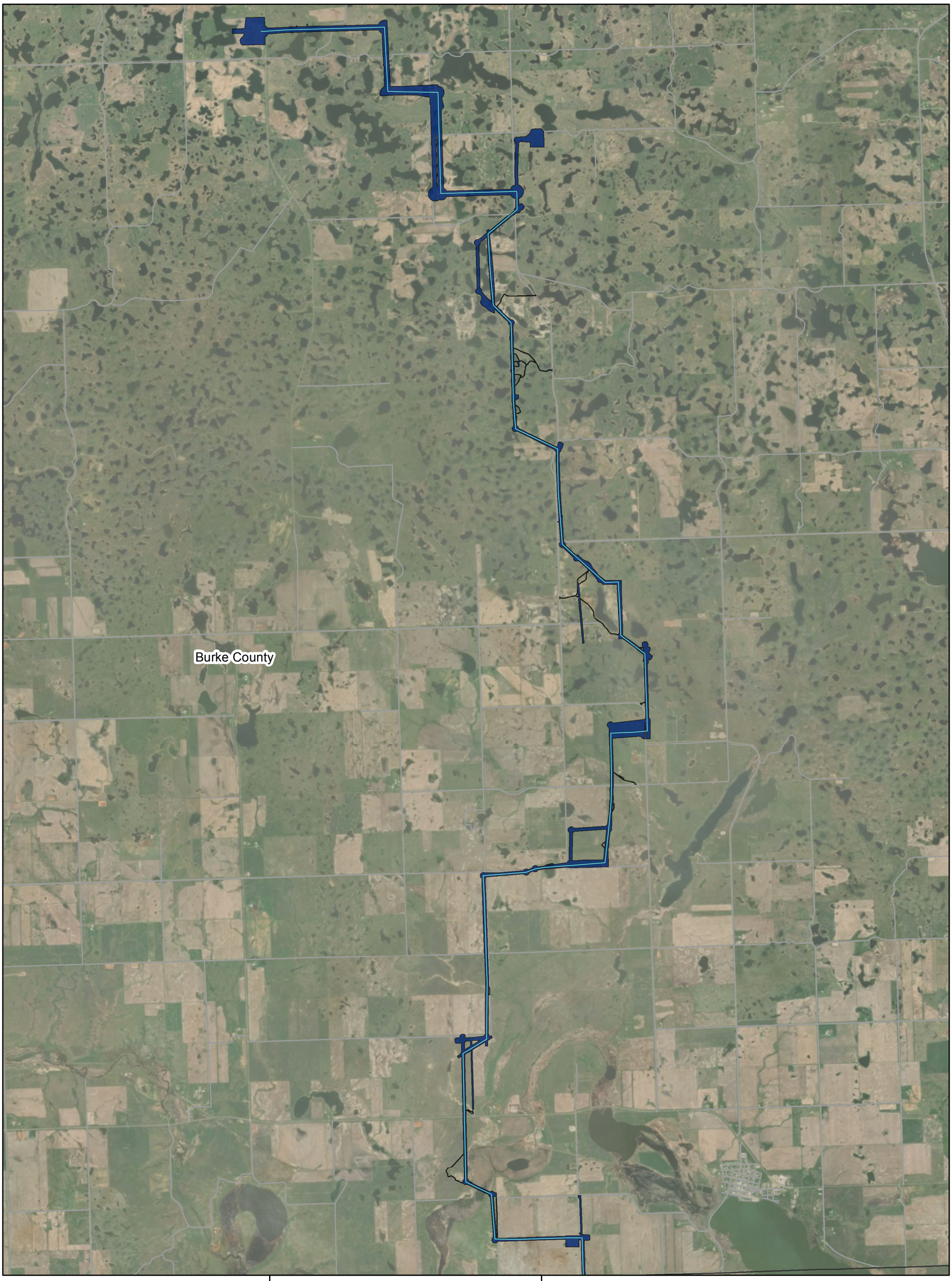
Per the recommendation of the participating tribes, 27 SRCSTT should be considered eligible for the NRHP and avoidance is recommended (Table 8). One SRCSTT, CHFBK123, was recommended not eligible for the NRHP by TCS in the field due to the nature of the feature and extensive prior disturbance, and does not require avoidance.

Table 8: SRCSTT Recommended for Avoidance

CHFBK107	CHFBK112	CHFBK117	CHFBK122	CHFBK132	CHFMN33
CHFBK108	CHFBK113	CHFBK118	CHFBK124	CHFMN29	CHFMN34
CHFBK109	CHFBK114	CHFBK119	CHFBK125	CHFMN30	
CHFBK110	CHFBK115	CHFBK120	CHFBK126	CHFMN31	
CHFBK111	CHFBK116	CHFBK121	CHFBK127	CHFMN32	

AECOM recommends avoidance of all cultural resources that are potentially eligible for listing on the NRHP, sites deemed culturally sensitive, or sites that have not been evaluated for eligibility following the guidelines outlined by the NDSHPO. For this investigation, Northern Divide has committed to avoiding effects to archaeological resources that could be considered archaeologically or culturally significant.

The Class III report will be submitted to the NDSHPO and concurrence will be obtained prior to construction of the Project. Once the NDSHPO concurrence letter is received it will be submitted to the Commission. If areas beyond the Survey Corridor are to be used during construction, AECOM recommends completion of an addendum Class III cultural resource inventory to determine the presence or absence of any cultural resources within these areas.



Legend

- County Roads
- Transmission Centerline
- County Boundary
- Survey Corridor

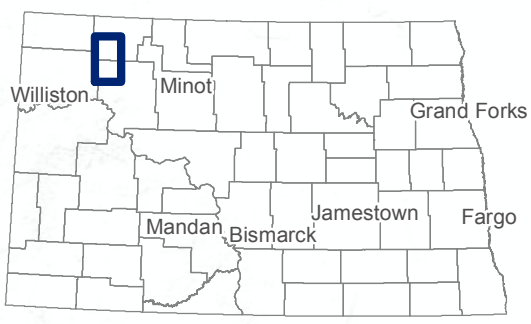
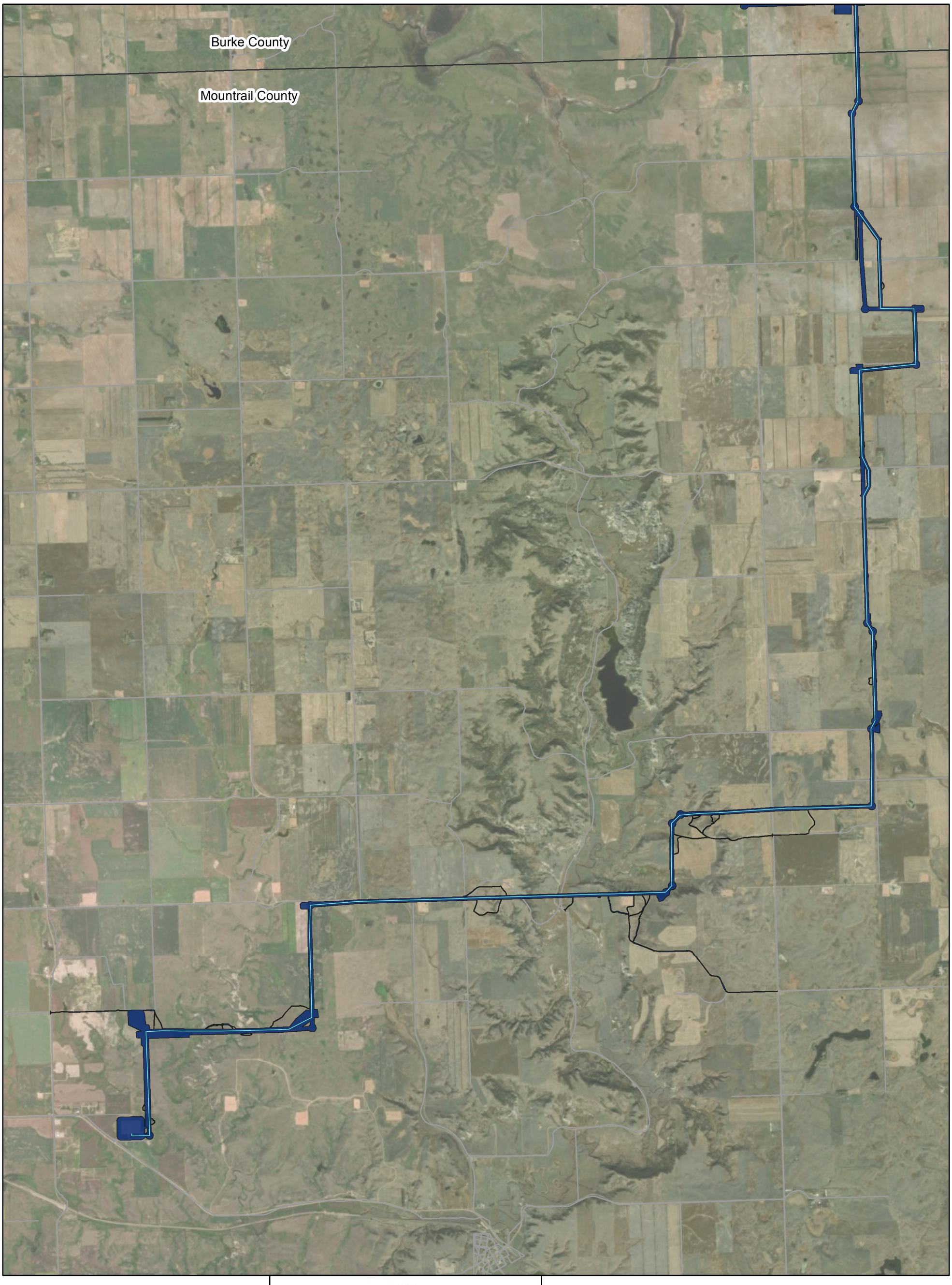


Figure 1
Cultural Survey Corridor - Burke County

Northern Divide Transmission Line
Cultural Resources Inventory
Burke and Mountrail Counties, ND

N
W E
S

0 0.5 1 2 3 Miles



Legend

- County Roads
- Transmission Centerline
- County Boundary
- Survey Corridor

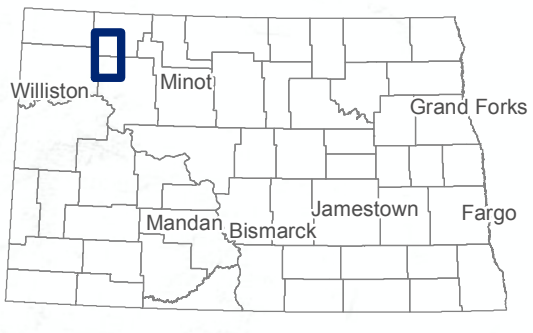


Figure 2
Cultural Survey Corridor - Mountrail County

Northern Divide Transmission Line
Cultural Resources Inventory
Burke and Mountrail Counties, ND

N
W E
S

0 0.5 1 2 3 Miles

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

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February 22, 2019

Ms. Melinda McCarthy, MA, RPA
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AECOM
1000 East Calgary Avenue, Suite 1
Bismarck, ND 58503

ND SHPO Ref: 18-0733 "Burke Transmission Line: A Class III Cultural Resource Inventory in Burke and Mountrail Counties, North Dakota"

Dear Ms. McCarthy,

We reviewed ND SHPO Ref: 18-0733 "Burke Transmission Line: A Class III Cultural Resource Inventory in Burke and Mountrail Counties, North Dakota," and find it acceptable. We concur with a "No Significant Sites Affected" determination for this project, provided the project remains as mapped and described in your AECOM report dated February 2019, and provided sites recommend for avoidance are avoided and monitored when needed.

Thank you for the opportunity to review this project. Please include the ND SHPO reference number listed above in any further correspondence for this specific project. If you have any questions, please contact Paul Picha at (701)-328-3574 or Susan Quinnell at (701) 328-3576 or squinnell@nd.gov.

Sincerely,

Claudia J. Berg
Director, State Historical Society of North Dakota

Wetlands and Other Waters Delineation Report

Northern Divide Wind Energy Center
Northern Divide Wind, LLC
Burke County, North Dakota

Prepared for:

Northern Divide Wind, LLC
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Prepared by:

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January 2020

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1.0 INTRODUCTION

Northern Divide Wind, LLC (Northern Divide Wind), a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC, is proposing to construct the Northern Divide Wind Energy Center (Project). This report is in support of the Northern Divide Wind Energy Center Application to the North Dakota Public Service Commission for a Certificate of Site Compatibility (Case Number PU-19-376).

The Project consists of up to 74 turbines, four alternative turbine locations, access roads, underground electrical collection and communication systems, an Aircraft Detection Lighting System, a collection substation, an operations and maintenance building, one permanent meteorological evaluation tower, two temporary power performance meteorological evaluation towers, and temporary work spaces for a construction laydown area and a batch plant. The Project Area encompasses approximately 10,912 acres (17.05 square miles) in Burke County, North Dakota. The Project will have a nameplate capacity of approximately 200 MW.

AECOM delineated wetlands and other waters in support of the Project. Other waters can include, but are not limited to, streams, ponds, impoundments, prairie potholes, and lakes. Field surveys occurred from August to November 2019 within the survey corridor. The survey corridor is any location where potential Project infrastructure could be sited within the Project Area. Presented in this report are descriptions of the methodology, results, and conclusions of the delineations. Northern Divide Wind has committed to the North Dakota Game and Fish Department (NDGFD) and U.S. Fish and Wildlife Service (USFWS) to avoid all direct impacts to wetlands and other waters, regardless of their U.S. Army Corps of Engineers (USACE) jurisdictional status.

2.0 ENVIRONMENTAL ANALYSIS

2.1 Soils

AECOM acquired soils data from a United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey site-specific soil report (Soil Survey Staff 2020). There are 14 soil map units consisting primarily of loams, silty loams, and silty clay loams. Five soil map units have a hydric soil component based on their drainage class. The drainage classes are somewhat poorly drained, poorly drained, and very poorly drained. **Tables 2-1** and **2-2** describe drainage class and hydric characteristics, respectively.

Table 2-1 Drainage Class Description

Drainage Class	Drainage Class Description
Somewhat poorly drained	Water is removed slowly so that the soil is wet at a shallow depth for significant periods during the growing season. The occurrence of internal free water commonly is shallow to moderately deep and transitory to permanent. Wetness markedly restricts the growth of mesophytic crops, unless artificial drainage is provided. The soils commonly have one or more of the following characteristics: low or very low saturated hydraulic conductivity, a high-water table, additional water from seepage, or nearly continuous rainfall.
Poorly drained	Water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. The occurrence of internal free water is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season so that most mesophytic crops cannot be grown, unless the soil is artificially drained. The soil, however, is not continuously wet directly below plow-depth. Free water at shallow depth is usually present. This water table is commonly the result of low or very low saturated hydraulic conductivity of nearly continuous rainfall, or of a combination of these.
Very poorly drained	Water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season. The occurrence of internal free water is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. If rainfall is high or nearly continuous, slope gradients may be greater.

Source: Soil Survey Division Staff (1993)

Table 2-2 Hydric Soil Characteristics within the Project Area

Map Unit Name	Area (acres)	Approximate Percent (%) of Project Area	Drainage Class
Hamerly-Tonka complex, 0 to 3 percent slopes	75.5	0.69%	Somewhat poorly drained
Vallers loam, moderately saline, 0 to 1 percent slopes	64.0	0.59%	Poorly drained
Vallers, moderately saline-Parnell complex, 0 to 1 percent slopes	55.9	0.51%	Poorly drained
Parnell silty clay loam, 0 to 1 percent slopes	346.9	3.18%	Very poorly drained
Southam silty clay loam, 0 to 1 percent slopes	437.5	4.01%	Very poorly drained

Source: Soil Survey Staff (2020)

2.2 Geography and Topography

The Project spans two Class IV ecoregions, which are more detailed ecoregions for state-level applications (Bryce et al. 1996): Northern Missouri Coteau and the Northern Dark Brown Prairie. The Northern Missouri Coteau lies in a transition zone to a more boreal climate to the north and a more arid climate to the west. Willow and aspen, southern outliers of aspen parkland to the north, may occur at wetland margins. Rough fescue, also a northern species, appears in grassland associations. Wetlands tend to dry out earlier in the summer than on the Missouri Coteau to the south and east. Mixed dryland agriculture is the major land use.

2.3 Hydrology

The USFWS National Wetlands Inventory (NWI) and U.S Geological Survey National Hydrography Dataset (NHD) were used to identify potential surface waters within the Project Area (USFWS 2020, USGS 2020, **Figure 2-2**). This data served as a precursor for field delineations. The Project is located within the Upper Souris Watershed (USGS Cataloging Unit: 09010001) and the Lake Sakakawea Watershed (USGS Cataloging Unit: 10110101), which are further divided into sub-watersheds (see **Table 2-3**) within the Missouri River major watershed (USGS 2020).

Table 2-3 Sub-Watersheds within the Project Area

Sub-Watershed Name	12-Digit Hydrologic Unit Code
Unnamed	090100060606
Unnamed	090100071101
City of Columbus	090100071102
Headwaters West Branch Short Creek	090100071103
Red Lake	101101011201
Headwaters White Earth Creek	101101011202
Smishek Lake	101101011301

Source: USGS (2020)

2.4 Vegetation and Land Use Cover

The Project is located in rural North Dakota in an area predominantly comprised of cultivated land, hayfields, pasturelands, and grasslands. This area is associated with mixed-grass prairie (Dyke et al. 2015). Vegetation of the mixed-grass prairie consists mainly of Western wheatgrass (*Pascopyrum smithii*), little bluestem (*Schizachyrium scoparium*), purple prairie clover (*Dalea purpurea*), and common yarrow (*Achillea millefoium*) with prairie cordgrass (*Spartina pectinata*) and reed canary grass (*Phalaris arundinacea*) occurring in low areas. As such, agriculture supporting both livestock grazing and crops is a major land use, and most of the native prairie has been converted to wheat, canola, and other commercial crops. Wooded areas are limited to shelterbelts between fields, windbreaks surrounding farmsteads, along drainages, and near wetlands.

A desktop land use classification was completed using current and historical Google Earth aerial imagery (Google Earth 2019) and North Dakota statewide historical imagery from 1957- 1962, 1995-1998, 2003-2006, 2009, 2010, 2012, and 2014-2018 (ND GIS Hub 2019). Parcels of land were classified based on features such as rock piles indicating extensive mechanized rock clearing; presence and amount of trees and shrubs; field edge changes; absence of scattered rocks; straight line features indicating plowing, disking, harvesting, or planting; or any other features indicating human disturbance. Land use was grouped into seven different categories and each category was defined as follows:

1. Cropland: parcels of land that are currently being used for agricultural crop production.

2. Broken Grassland: grassland where the soil has been historically disturbed by tilling, construction, or other mechanical methods.

3. Unbroken Grassland: grassland where the soil has not been disturbed by tilling, construction, or other mechanical methods. Native prairie is considered unbroken grassland. Areas used as pasture and hayland that have not been cultivated are also considered unbroken grassland (e.g., cultivated or extensive mechanized rock clearing) are also considered unbroken grassland.

4. Tree Row: deliberately planted tree rows.

5. Forest/Shrubland: native forested areas that were not deliberately planted and areas predominantly vegetated with shrubs.

6. Existing infrastructure: residences, farmsteads, oil well pads.

7. Wetland: wetlands and other waters.

Once land cover features were evaluated, Google Earth and geographic information system (GIS) mapping software were used to produce a digital data layer of polygons delineating the land use. See **Table 2-4** below for the land use within the Project Area. All of the 74 planned turbines and four alternative turbines locations are located in cropland. Wetlands and other land uses are presented in **Figure 2-3**.

Table 2-4 Land Use Classification within the Project Area

Land Cover	Acreage within Project Area [1]	Percentage of Project Area [1]	Acres Permanently Impacted by Project Infrastructure
Cropland	6,953	64%	53.5
Wetland	1,591	15%	0.0
Broken Grassland	1,066	10%	3.5
Unbroken Grassland	742	7%	0.0
Forest/Shrubland	427	4%	0.2
Tree Row	75	<1%	0.0
Existing Infrastructure	43	<1%	0.0

[1] Rounded to the nearest whole number.

2.5 Precipitation and Growing Season

The NRCS Climate Analysis for Wetlands (WETS) Tables provide historical data based on a 30-year average (1971-2000) of temperature and precipitation data from the Powers Lake 1N monitoring station (USDA 2019). The WETS table, which includes the records of 30 years of precipitation, estimates the growing season (days with an average temperature >32°F with a probability of 70 percent) to occur from May 19 through September 14. The average annual precipitation is 16.26 inches, with an average monthly precipitation exceeding two inches in May, June, and July. Field surveys were completed in August, September, October, and November, where monthly precipitation reached 2.2, 1.54, 1.22, and 0.71 inches, respectively. The average monthly precipitation during surveys in 2019 was consistent with the average for each month historically. Annual average snow fall is 39.1 inches.

3.0 REGULATORY SETTING

3.1 Federal Regulations

3.1.1 Clean Water Act

All discharges of dredged or fill material into jurisdictional waters of the United States that result in permanent or temporary losses to "waters of the United States" (WOTUS), are regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Additionally, the USACE regulates projects in navigable waters under Section 10 of the Rivers and Harbors Act. As defined in 33 Code of Federal Regulations (CFR) Part 328(a), the WOTUS are:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOTUS under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 123.11(m) which also meet the criteria of this definition) are not WOTUS.
8. WOTUS do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the United States Environmental Protection Agency (EPA).

Under USACE regulations, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR § 328.3(c)(4)).

In the absence of wetlands in or adjacent to non-tidal waters, the lateral extent of USACE jurisdiction is determined by the ordinary high water mark (OHWM), which is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR § 328.3(c)(6)).

The USACE Nationwide Permits (NWPs) 12: Utility Line Activities and 14: Linear Transportation Projects, authorize the discharge of dredged or fill material into non-tidal WOTUS given that there is not a loss of greater than ½-acre of WOTUS for any "single and complete project" or that permanent access roads are not constructed above grade in WOTUS for a distance of more than 500 feet. "Single and complete project" refers to each discrete intersection between Project infrastructure and jurisdictional wetlands and other WOTUS. PCN to the USACE is required under both NWPs if permanent impacts exceed the 0.10-acre threshold. However, for permanent impacts less than 0.10-acre, no PCN would be required. NWP 12 includes Section 10 authority, so that, should wetlands, WOTUS, or Section 10 waters be impacted, this permit will address all such impacts. If a NWP is used or authorized, even if below the PCN threshold, the project must comply with the Endangered Species Act and National Historic Preservation Act. The General and Regional Conditions of the applicable NWPs are included in **Appendix A**.

3.1.2 United States Fish and Wildlife Service

The USFWS manages lands including wetland easements within the Project Area (**Figure 3-1**). These easements are legal agreements between landowners and the USFWS to protect wetlands that are vital to wildlife habitat. The USFWS owns the perpetual rights to certain wetland basins within wetland easements which cannot be burned, drained, filled, or leveled without authorization under a Special Use Permit from the USFWS. The upland portions of wetland easements may be developed without a permit as long as the wetland basins are avoided. However, landowners are permitted to till and farm these areas when they are not wet.

USFWS easements were provided from the USFWS Crosby Wetland Management District for the Project Area. Within the Project Area there are approximately 611 acres of USFWS wetlands easements. All Project infrastructure is sited outside of USFWS easements.

3.2 State Regulations

3.2.1 North Dakota Public Service Commission

In accordance with N.D. Admin Code Section 69-06-08-01(3) Energy Conversion Facility Siting Criteria – Avoidance Areas, the geographical area of wetlands may not be approved as a site for an energy conversion 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 North Dakota Public Service Commission may consider, among other things, the proposed management of adverse impacts, the orderly siting of facilities, system reliability and integrity, the efficient use of resources, and alternative sites. The area of avoidance must include a buffer zone of a reasonable width to protect the integrity of the area. The Project will avoid direct impacts to wetlands and other waters.

3.2.2 North Dakota Department of Environmental Quality

North Dakota regulates wetlands through Section 401 water quality certification under the CWA. The North Dakota Department of Environmental Quality (NDDEQ) is the regulatory agency that issues the Section 401 certification. The NDDEQ does not have a permitting program specific to wetlands and defers to regulations under the CWA. Coverage under the NDDEQ National Pollution Discharge Elimination System (NPDES) general construction permit will be obtained prior to the start of construction.

If dewatering of excavations is necessary during construction and as long as the water is known to be uncontaminated, all water will be discharged according to items outlined in the Storm Water Pollution Prevention Plan (SWPPP). If discharge water is suspected to be contaminated, an application for a temporary discharge permit (NDG-070000) will be submitted to the NDDEQ.

3.2.3 North Dakota State Water Commission

The North Dakota State Water Commission (NDSWC) is the regulatory body that permits water-related projects in the state of North Dakota. The NDSWC issues two types of permits relating to wetlands: a Drainage Permit and a Construction Permit. The Surface Drainage Permit is required according to N.D.C.C. 61-32-03 before draining a pond, slough, lake or sheetwater, or any series thereof, that has a watershed area (i.e., drainage area) of 80 acres or more. The Construction Permit is required according to N.D.C.C. 61-16.1-38 if a water control structure is constructed or modified and is capable of retaining, diverting, or obstructing more than 50 acre-feet of water for dikes, other devices, and low-hazard dams, or 25 acre-feet of water for medium-hazard and high-hazard dams. A conditional or temporary permit for water appropriation is required by the NDSWC if surface water or groundwater will be diverted for construction of the Project. The Project does not meet the criteria for any of the aforementioned NDSWC permits. If surface water or groundwater will be diverted for construction of the Project, a water permit will be required per N.D.C.C. 61-04-02.

4.0 WETLAND AND OTHER WATERS DELINEATION METHODS

4.1 Desktop Analyses

AECOM conducted a desktop analysis to identify probable locations of wetlands and other waters prior to field work as a preparation to the delineation field effort. The desktop analysis used publicly available online mapping tools, as described in this section below.

The USFWS online Wetlands Mapper tool depicts wetlands mapped as part of the NWI Program. The NWI dataset identified 1,072.3 acres of NWI wetlands as depicted in **Figure 2-2** and in **Table 4-1** (USFWS 2020).

Table 4-1 NWI Wetlands within the Project Area

NWI Wetland Type	Acreage within Project Area	Percentage of Project Area
Freshwater Emergent Wetland	909.90	8.34%
Freshwater Forested/Shrub Wetland	1.14	0.01%
Freshwater Pond	87.33	0.80%
Lake	63.90	0.59%
Riverine	10.07	0.09%

Source: USFWS 2020

The NHD was utilized to identify perennial and intermittent streams, ponds, and lakes. The online database NHD Viewer tool was queried and found 10 NHD features that crossed the Project Area as depicted in **Figure 2-2** (USGS 2020. The NHD types included intermittent stream/river and artificial path.

The NRCS is the source for hydric soils information, as shown in **Table 2-1** in Section 2.1 of this report. Data was obtained and was used to cross-check against field sites that were initially observed to exhibit wetland or surface water conditions. Hydric soils were identified associated with NWI and NHD mapped features (**Figure 2-1**) and the Web Soil Survey was queried for drainage class. A total of 8.9 percent of the Project Area is classified as somewhat poorly drained, poorly drained, and very poorly drained.

Due to the Project Area's rural location, no Federal Emergency Management Agency flood rating maps have been developed for the area (USDHS, FEMA 2018).

4.2 Wetland Delineations

AECOM conducted wetland delineations within the survey corridor from August to November 2019. The delineations were conducted in areas where Project infrastructure and survey corridors intersected wetlands. In order to provide flexibility for potential Project design changes, the survey corridor included on average and at a minimum: 600-foot diameter area around each turbine location, a 200-foot corridor around access roads, and a 50-foot corridor around collection lines.

Wetland delineations for the Project followed methodology from the USACE Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE 2010). The delineation process was utilized to document dominant vegetation, soils, and hydrology in areas of interest (i.e., areas with potential intersections between planned Project infrastructure and potential wetland ecosystems). For a site to be considered a wetland, there must be dominance by hydrophytic vegetation, presence of hydric soils, and characteristic wetland hydrology. Under normal conditions, if a sample plot lacks any of these three criteria, it is considered upland. To determine these three variables, the field team designated paired sample plots, placed at discrete (typically less than 20 feet) distances from one another, for each wetland. One sample

plot represented wetland conditions; the other sample plot represented upland conditions. Each sample plot featured a hand-dug soil pit averaging 16 inches in depth. The sample plot also included nested concentric sampling rings for vegetation cover and species identification, as follows:

- Herbaceous vegetation was identified within a 5-foot radius of the sample plot center;
- Sapling/shrub vegetation was identified within a 15-foot radius of the sample plot center; and,
- Trees and woody vines were documented within a 30-foot radius of the sample plot center.

A Wetland Determination Data Form, specific to the Great Plains Region, was completed for each paired wetland and upland sample plot. In cases where wetlands were assessed outside of the growing season, assessed during drought conditions, or when a wetland boundary was difficult to assess, AECOM conservatively mapped the wetland boundaries.

4.2.1 Hydrophytic Vegetation Indicators

The dominant vegetation at each sample plot was identified to species level and each species was assigned a wetland indicator status (**Table 4-2**) using the State of North Dakota 2016 Wetland Plant Lists (Lichvar et al. 2016). The field team used Wetland Plants of the Northern Great Plains (Chadde 2012) and Weeds of the West (Whitson et al. 2009) as field references for identifying unknown plant species.

Hydrophytic vegetation, or plants likely to occur in wetlands, include those species indicated as obligate, facultative wetland or facultative. Upland plants include all other indicators, including unlisted plants. As a general rule, for a sample plot to meet the wetland vegetation criteria, greater than 50 percent of the plants must be hydrophytes.

Table 4-2 Wetland Indicator Status

Indicator Status	Designation	Qualitative Description
Obligate	Hydrophyte	Almost always occur in wetlands under natural conditions (estimated probability >99%).
Facultative Wetland	Hydrophyte	Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands (estimated probability 1%-33%).
Facultative	Hydrophyte	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%- 66%).
Facultative Upland	Non-hydrophyte	Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
Upland	Non-hydrophyte	Almost always occur in non-wetlands under natural conditions (estimated probability >99%).
Not Listed	Non-hydrophyte	Not listed plants are assumed to be upland as defined in the user notes for the 2016 Wetland Plant List.

Source: Cowardin et al. 1979

4.2.2 Hydric Soils Indicators

Soil from each soil pit was evaluated for hue, value, and chroma in each observable horizon using Munsell Soil Color Charts (Gretag/Macbeth 2009). Each soil horizon was also checked for texture and for the presence of redoximorphic features, depleted matrix, saturation, and other specific criteria used to document hydric conditions.

4.2.3 Wetland Hydrology Indicators

Each sample plot was evaluated for the presence of hydrology indicators, as defined by the utilized methodologies. One primary indicator is sufficient to conclude that wetland hydrology is present. In the

absence of a primary indicator, two or more secondary indicators are required to conclude that wetland hydrology is present. For each wetland, hydrology was analyzed for all primary and secondary wetland indicators. Once established, the soil pits were left open a sufficient amount of time to allow the apparent high-water table, if present, to stabilize. Depth to surface water, water table, and saturation were recorded when present.

4.2.4 Wetland Mapping

Wetland scientists mapped delineations with a Trimble Geo 7X Global Positioning System (GPS) by walking the outer limit of visibly identifiable wetland vegetation between the paired wetland and upland sample plots. The Trimble Geo 7X GPS unit provides sub-meter survey accuracy (post-processing). The field-collected data were plotted as a map layer using geographic information system (GIS) software. Additionally, the Trimble Geo 7X GPS was used to record the locations of the wetland and upland soil pits. Photographs of select wetlands are provided in the photographic log in **Appendix B**.

4.3 Other Waters Delineations

Since the USACE does not have a data form for other waters for the Great Plains Region, data for other waterbodies, such as streams and ponds, data was recorded on an AECOM Other Waters Data Form. The data form documented the waterbody features, flow characteristics, substrate, and vegetation features. A Trimble Geo 7X GPS was used to record the other waters boundary and delineate the OHWM as applicable.

5.0 WETLANDS AND OTHER WATERS RESULTS

5.1 Wetland Delineation Results

AECOM delineated a total of 138 wetlands within the survey corridor in support of the Project (**Table 5-1**). Delineated wetlands were either within the survey corridor but outside of the planned Project footprint, or were previously in the Project footprint but the layout was modified to avoid impacts. All collection lines that cross wetlands will be bored resulting in no temporary or permanent impacts to the wetlands, as Northern Divide Wind has modified the Project to avoid impacting all wetlands. Maps depicting the delineated wetlands are included in **Figure 3-1**.

Table 5-1 Delineated Wetlands

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-B01-WETLAND	48.766009	-102.76925	17	0.00	No
ND-B02-WETLAND	48.766081	-102.774271	17	0.00	No
ND-B03-WETLAND	48.766772	-102.772672	17	0.00	No
ND-B04-WETLAND	48.770195	-102.765295	17	0.00	No
ND-B65-WETLAND	48.772434	-102.782627	16 and 17	0.00	No
ND-B66-WETLAND	48.774158	-102.783919	16	0.00	No
ND-B67-WETLAND	48.793494	-102.780530	14 and 15	0.00	Yes
ND-B68-WETLAND	48.795002	-102.777740	14	0.00	No
ND-B69-WETLAND	48.783595	-102.811224	12	0.00	No
ND-B70-WETLAND	48.783149	-102.811223	12	0.00	No
ND-B71-WETLAND	48.780831	-102.814787	12	0.00	No
ND-B72-WETLAND	48.802539	-102.813184	13	0.00	No
ND-B73-WETLAND	48.794710	-102.820928	13	0.00	No
ND-B74-WETLAND	48.786635	-102.822124	12	0.00	No
ND-B75-WETLAND	48.780274	-102.824693	12	0.00	No
ND-B76-WETLAND	48.796196	-102.835842	10	0.00	No
ND-B77-WETLAND	48.795336	-102.840641	10	0.00	Yes
ND-B78-WETLAND	48.790763	-102.835755	11	0.00	No
ND-B79-WETLAND	48.790943	-102.841913	11	0.00	No
ND-B80-WETLAND	48.810203	-102.845299	9	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-B81-WETLAND	48.802602	-102.841730	10	0.00	No
ND-B82-WETLAND	48.801657	-102.839842	10	0.00	Yes
ND-B83-WETLAND	48.801285	-102.839781	10	0.00	Yes
ND-B84-WETLAND	48.801436	-102.835838	10	0.00	No
ND-B85-WETLAND	48.814159	-102.841370	9	0.00	No
ND-B86-WETLAND	48.817570	-102.845677	9	0.00	No
ND-B87-WETLAND	48.802256	-102.869342	8	0.00	Yes
ND-B88-WETLAND	48.810438	-102.858206	8 and 9	0.00	No
ND-B89-WETLAND	48.811925	-102.862527	8	0.00	No
ND-B90-WETLAND	48.812954	-102.861526	8	0.00	No
ND-B91-WETLAND	48.809201	-102.866589	8	0.00	No
ND-B92-WETLAND	48.809047	-102.899321	7	0.00	No
ND-B93-WETLAND	48.812635	-102.908161	3 and 7	0.00	No
ND-B94-WETLAND	48.816877	-102.890610	7	0.00	No
ND-B95-WETLAND	48.817903	-102.886109	7	0.00	No
ND-B96-WETLAND	48.797108	-102.778268	14	0.00	Yes
ND-B97-WETLAND	48.779447	-102.771962	15	0.00	No
ND-B98-WETLAND	48.778657	-102.778952	15	0.00	No
ND-B99-WETLAND	48.783900	-102.816337	12	0.00	No
ND-B100-WETLAND	48.784320	-102.822599	12	0.00	No
ND-B101-WETLAND	48.784360	-102.825680	12	0.00	No
ND-B102-WETLAND	48.781196	-102.822080	12	0.00	Yes
ND-B103-WETLAND	48.794803	-102.830281	10	0.00	No
ND-B104-WETLAND	48.793272	-102.841814	11	0.00	No
ND-B105-WETLAND	48.793150	-102.841320	11	0.00	No
ND-B106-WETLAND	48.791888	-102.840931	11	0.00	No
ND-B107-WETLAND	48.790013	-102.843218	11	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-B108-WETLAND	48.789364	-102.845870	11	0.00	No
ND-B109-WETLAND	48.827286	-102.894393	5 and 6	0.00	No
ND-B110-WETLAND	48.828577	-102.896078	5 and 6	0.00	No
ND-B113-WETLAND	48.800853	-102.832227	10	0.00	No
ND-B114-WETLAND	48.789273	-102.851781	11	0.00	No
ND-B115-WETLAND	48.789258	-102.849514	11	0.00	No
ND-B116-WETLAND	48.782362	-102.849654	11	0.00	No
ND-B117-WETLAND	48.782190	-102.846285	11	0.00	No
ND-B118-WETLAND	48.781900	-102.844118	11	0.00	No
ND-B119-WETLAND	48.783521	-102.845454	11	0.00	No
ND-B120-WETLAND	48.809193	-102.841899	9	0.00	No
ND-B121-WETLAND	48.811121	-102.842150	9	0.00	No
ND-B122-WETLAND	48.811808	-102.840008	9	0.00	No
ND-B123-WETLAND	48.833083	-102.910407	5	0.00	No
ND-C02-WETLAND	48.813700	-102.920276	3	0.00	Yes
ND-C03-WETLAND	48.807670	-102.921226	3	0.00	No
ND-C04-WETLAND	48.789509	-102.923976	1 and 2	0.00	No
ND-C05-WETLAND	48.789126	-102.929770	1 and 2	0.00	No
ND-C06-WETLAND	48.784166	-102.933721	1	0.00	Yes
ND-C08-WETLAND	48.780164	-102.921981	1	0.00	No
ND-C09-WETLAND	48.793924	-102.936488	2	0.00	No
ND-C10-WETLAND	48.831252	-102.896394	5 and 6	0.00	No
ND-C11-WETLAND	48.824305	-102.922235	4	0.00	Yes
ND-C12-WETLAND	48.822961	-102.924087	4	0.00	No
ND-C14a-WETLAND	48.823384	-102.935435	4	0.00	No
ND-C14b-WETLAND	48.822275	-102.933417	4	0.00	No
ND-C15-WETLAND	48.821754	-102.925880	4	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-C16-WETLAND	48.817504	-102.925970	3	0.00	Yes
ND-C17a-WETLAND	48.781808	-102.929332	1	0.00	No
ND-C17b-WETLAND	48.783076	-102.838508	11	0.00	Yes
ND-C18-WETLAND	48.824084	-102.903019	6	0.00	No
ND-C19-WETLAND	48.823821	-102.898050	6	0.00	No
ND-C20-WETLAND	48.823270	-102.897680	6	0.00	No
ND-C21-WETLAND	48.815166	-102.896549	7	0.00	No
ND-D01-WETLAND	48.816591	-102.917565	3	0.00	No
ND-D02-WETLAND	48.816652	-102.902221	3 and 7	0.00	No
ND-D03-WETLAND	48.814965	-102.909501	3	0.00	No
ND-D05-WETLAND	48.827688	-102.913836	4, 5 and 6	0.00	No
ND-D07-WETLAND	48.815745	-102.883231	7	0.00	No
ND-D08-WETLAND	48.818642	-102.886281	7	0.00	No
ND-D09-WETLAND	48.818221	-102.884590	7	0.00	No
ND-D10-WETLAND	48.835094	-102.909211	5	0.00	No
ND-D11-WETLAND	48.823544	-102.908008	6	0.00	No
ND-D12-WETLAND	48.823896	-102.912110	4 and 6	0.00	No
ND-D13-WETLAND	48.788082	-102.847120	11	0.00	No
ND-D14-WETLAND	48.806710	-102.848456	10	0.00	No
ND-D15-WETLAND	48.806307	-102.849074	10	0.00	No
ND-D16-WETLAND	48.805455	-102.846217	10	0.00	Yes
ND-D17-WETLAND	48.804486	-102.847005	10	0.00	No
ND-D18-WETLAND	48.805128	-102.847236	10	0.00	No
ND-D19-WETLAND	48.821012	-102.857536	9	0.00	No
ND-D20-WETLAND	48.811592	-102.865943	8	0.00	No
ND-D21-WETLAND	48.810675	-102.863486	8	0.00	Yes
ND-D22-WETLAND	48.810719	-102.867409	8	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-D23-WETLAND	48.810525	-102.861046	8	0.00	No
ND-D24-WETLAND	48.810441	-102.853351	8	0.00	Yes
ND-D25-WETLAND	48.816562	-102.857000	9	0.00	No
ND-D26-WETLAND	48.802063	-102.775421	14	0.00	No
ND-D28-WETLAND	48.825984	-102.896796	6	0.00	No
ND-D29-WETLAND	48.811704	-102.872404	8	0.00	No
ND-D30-WETLAND	48.810574	-102.872378	8	0.00	Yes
ND-D31-WETLAND	48.807688	-102.862744	8	0.00	No
ND-D32-WETLAND	48.809436	-102.855138	8 and 9	0.00	Yes
ND-D33-WETLAND	48.808074	-102.852677	8 and 9	0.00	Yes
ND-D34-WETLAND	48.807944	-102.851827	8 and 9	0.00	Yes
ND-D35-WETLAND	48.808228	-102.850687	9	0.00	No
ND-D36-WETLAND	48.802024	-102.781470	14	0.00	No
ND-D37-WETLAND	48.801168	-102.777204	14	0.00	Yes
ND-D38-WETLAND	48.801737	-102.776611	14	0.00	No
ND-E01-WETLAND	48.763248	-102.775769	17	0.00	Yes
ND-E02-WETLAND	48.765054	-102.776024	17	0.00	No
ND-E03-WETLAND	48.762047	-102.782458	16 and 17	0.00	Yes
ND-E04-WETLAND	48.762518	-102.786928	17	0.00	Yes
ND-E05-WETLAND	48.763726	-102.788254	16 and 17	0.00	Yes
ND-E06-WETLAND	48.766813	-102.788966	16 and 17	0.00	Yes
ND-E08-WETLAND	48.768992	-102.789283	16 and 17	0.00	No
ND-E09-WETLAND	48.767717	-102.789758	16 and 17	0.00	No
ND-E10-WETLAND	48.770807	-102.790648	16 and 17	0.00	Yes
ND-E11-WETLAND	48.774714	-102.803044	16	0.00	No
ND-E12-WETLAND	48.774396	-102.801487	16	0.00	No
ND-E13-WETLAND	48.773848	-102.799258	16	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Planned
	Latitude	Longitude			
ND-E14-WETLAND	48.772861	-102.798055	16	0.00	No
ND-E15-WETLAND	48.773648	-102.796552	16	0.00	No
ND-E16-WETLAND	48.773150	-102.796662	16	0.00	No
ND-E17-WETLAND	48.778423	-102.811211	12	0.00	No
ND-E18-WETLAND	48.779869	-102.810278	12	0.00	No
ND-E19-WETLAND	48.800605	-102.797952	13	0.00	No
ND-E20-WETLAND	48.798447	-102.797367	13	0.00	No
ND-E21-WETLAND	48.800393	-102.780970	14	0.00	No
ND-E22-WETLAND	48.794245	-102.785721	14	0.00	Yes
ND-E23-WETLAND	48.793851	-102.786411	14	0.00	No
ND-E24-WETLAND	48.786540	-102.779548	15	0.00	No
ND-E25-WETLAND	48.782021	-102.777872	15	0.00	No
ND-E26-WETLAND	48.806077	-102.864676	8	0.00	No

5.2 Other Waters Delineation Results

AECOM delineated a total of seven other waters within the survey corridor in support of the Project (**Table 5-2**). Delineated other waters were either within the survey corridor but outside of the planned Project footprint, or were previously in the Project footprint but the layout was modified to avoid impacts. All collection lines that cross other waters will be bored resulting in no temporary or permanent impacts to the other waters. Northern Divide Wind has modified the Project to avoid impacting all other waters. Maps depicting the delineated other waters are also included in **Figure 3-1**.

Table 5-2 Delineated Other Waters

Other Waters Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Bore Needed
	Latitude	Longitude			
ND-B01-STREAM	48.805225	-102.800858	13	0.00	No
ND-B02-STREAM	48.801461	-102.870459	8	0.00	No
ND-D01-STREAM	48.804231	-102.768592	14	0.00	Yes
ND-D04-STREAM	48.817641	-102.850900	9	0.00	Yes
ND-D05-STREAM	48.805872	-102.804219	13	0.00	Yes
ND-E01-STREAM	48.803128	-102.809233	13	0.00	Yes
ND-E02-STREAM	48.802947	-102.807590	13	0.00	Yes

6.0 CONCLUSION

Based on the Project design, AECOM delineated a total of 145 wetlands and other waters within the survey corridor from August to November 2019 in support of the Project. To the extent practicable, Northern Divide Wind will:

- Avoid direct impacts to wetlands and other waters, including temporary impacts, regardless of USACE jurisdictional status.
- Avoid direct impacts to USFWS wetland easements.
- Obtain coverage under the NDDEQ NPDES general construction permit prior to the start of construction.
- Maintain appropriate water and soil conservation practices during construction through the implementation of best management practices outlined in the SWPPP. These practices include silt fencing, temporary reseeding, permanent seeding, mulching, filter strips, erosion blankets, grassed waterways and sod stabilization.
- Delineate and flag wetlands in close proximity to Project features prior to construction.
- Allow stormwater runoff to flow unrestricted.
- Provide contractors with static constraint maps and ensure compliance through onsite environmental construction monitoring.

7.0 LITERATURE CITED

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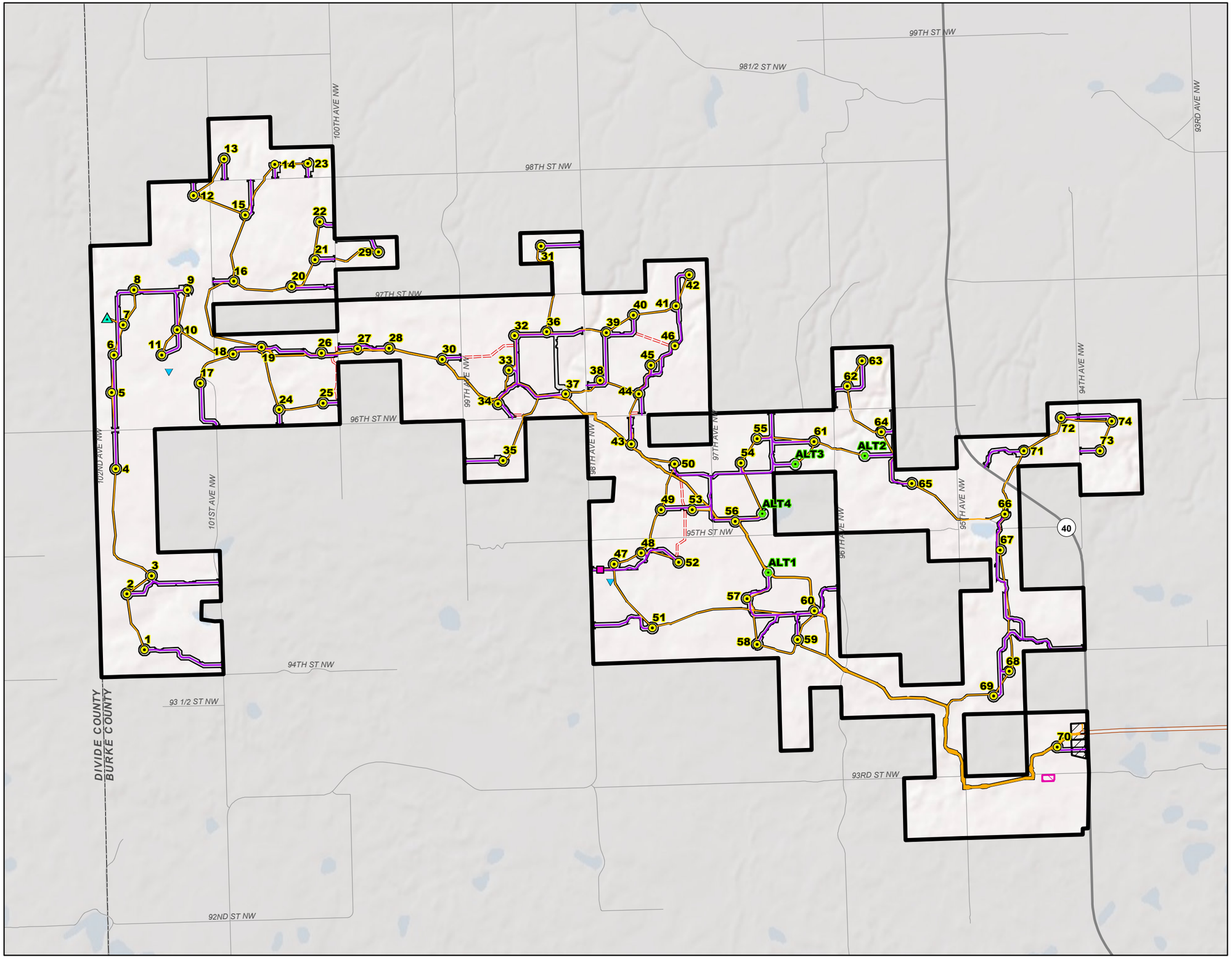
8.0 ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
CWA	Clean Water Act
GIS	Geographic Information System
GPS	Global Positioning System
kV	kilovolt
N.D.C.C.	North Dakota Century Code
NDDEQ	North Dakota Department of Environmental Quality
NDSWC	North Dakota State Water Commission
NDGFD	North Dakota Game and Fish Department
NHD	National Hydrography Dataset
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
Northern Divide Wind	Northern Divide Wind, LLC
OHWM	ordinary high-water mark
PCN	Pre-Construction Notification
Project	Northern Divide Wind Energy Center
SWPPP	Storm Water Pollution Prevention Plan
TNWs	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WETS	Climate Analysis for Wetlands
Wind Energy Center	Northern Divide Wind Energy Center
WOTUS	waters of the United States

Figures



Legend

- County Road
- State/Federal Highway
- County Boundary

Site Plan

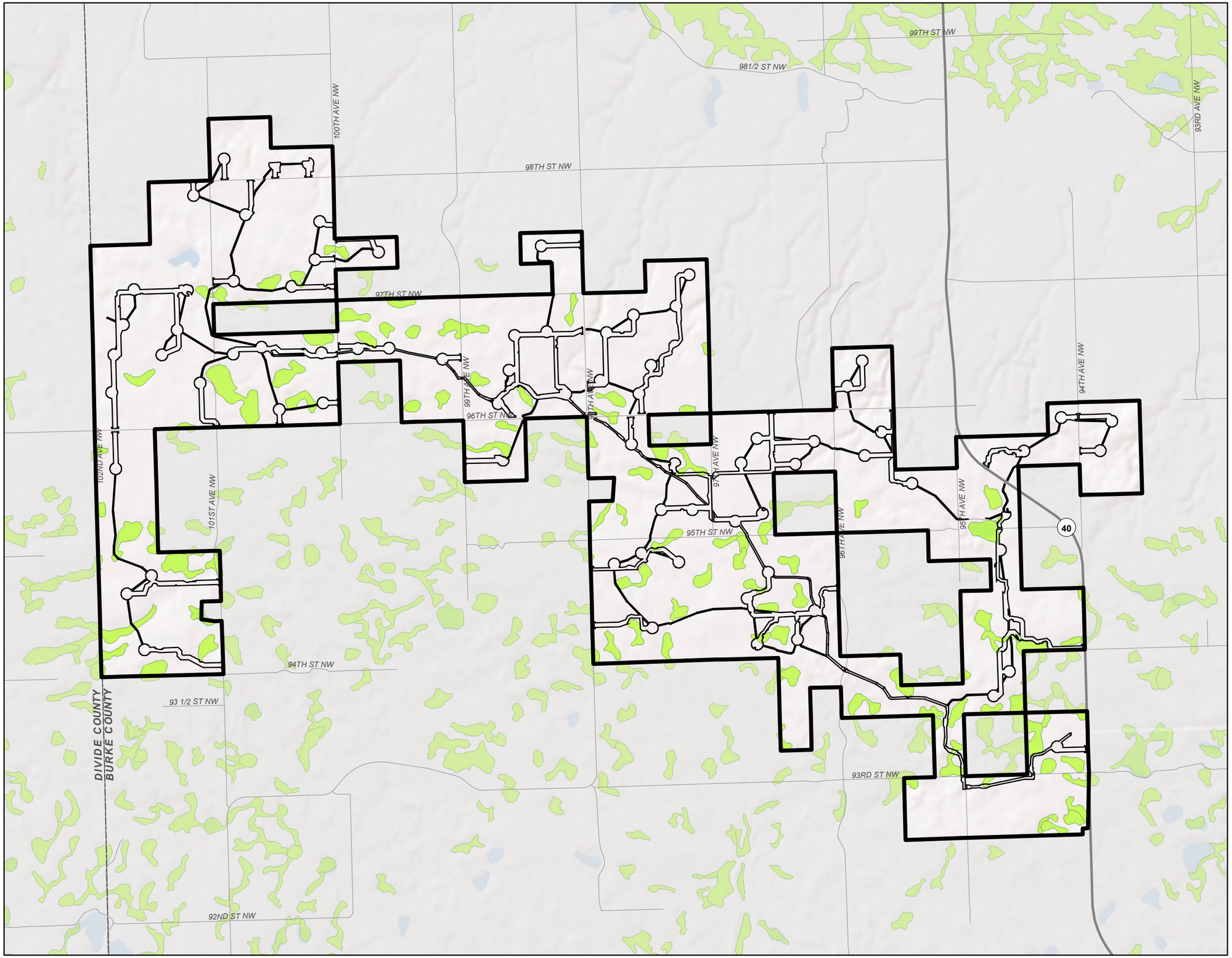
- Primary Turbine
- Alternative Turbine
- Permanent MET Tower
- Temporary MET Tower
- ADLS Radar Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- Batch Plant
- Laydown Yard, O&M Building & Substation
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide Wind Energy Center Project Area

0 0.5 1 1.5 Miles

Figure 1-1
Project Location and Site Plan
Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- Hydric Soils

Site Plan

- Northern Divide Wind Energy Center Project Area
- Construction Easement

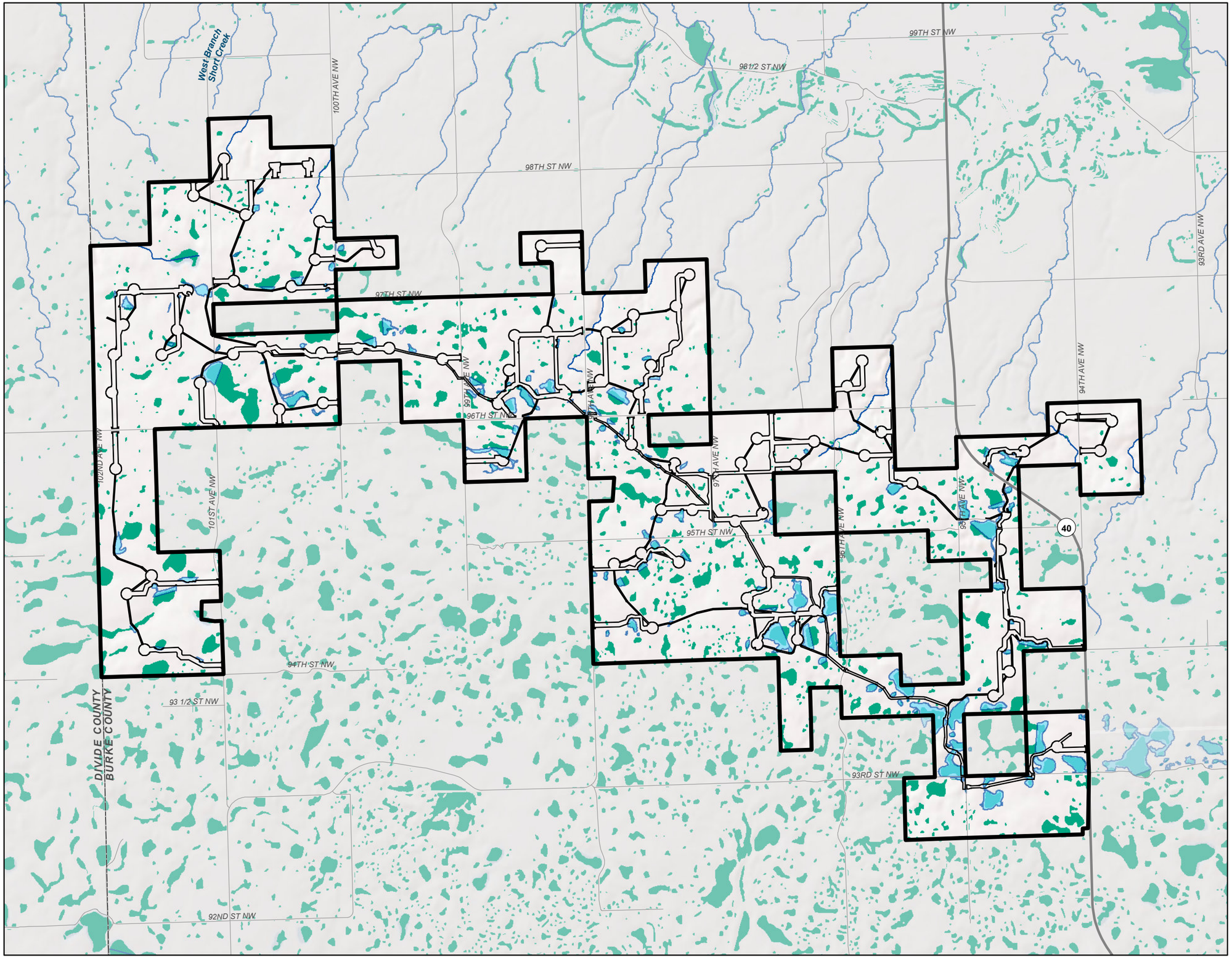
0 0.5 1 1.5 Miles

Figure 2-1
Hydric Soils

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- National Hydrogaphy Dataset (USGS 2019)
- National Wetlands Inventory (USFWS 2019)
- Delineated Wetland

Site Plan

- Northern Divide Wind Energy Center Project Area
- Construction Easement

0 0.5 1 1.5 Miles

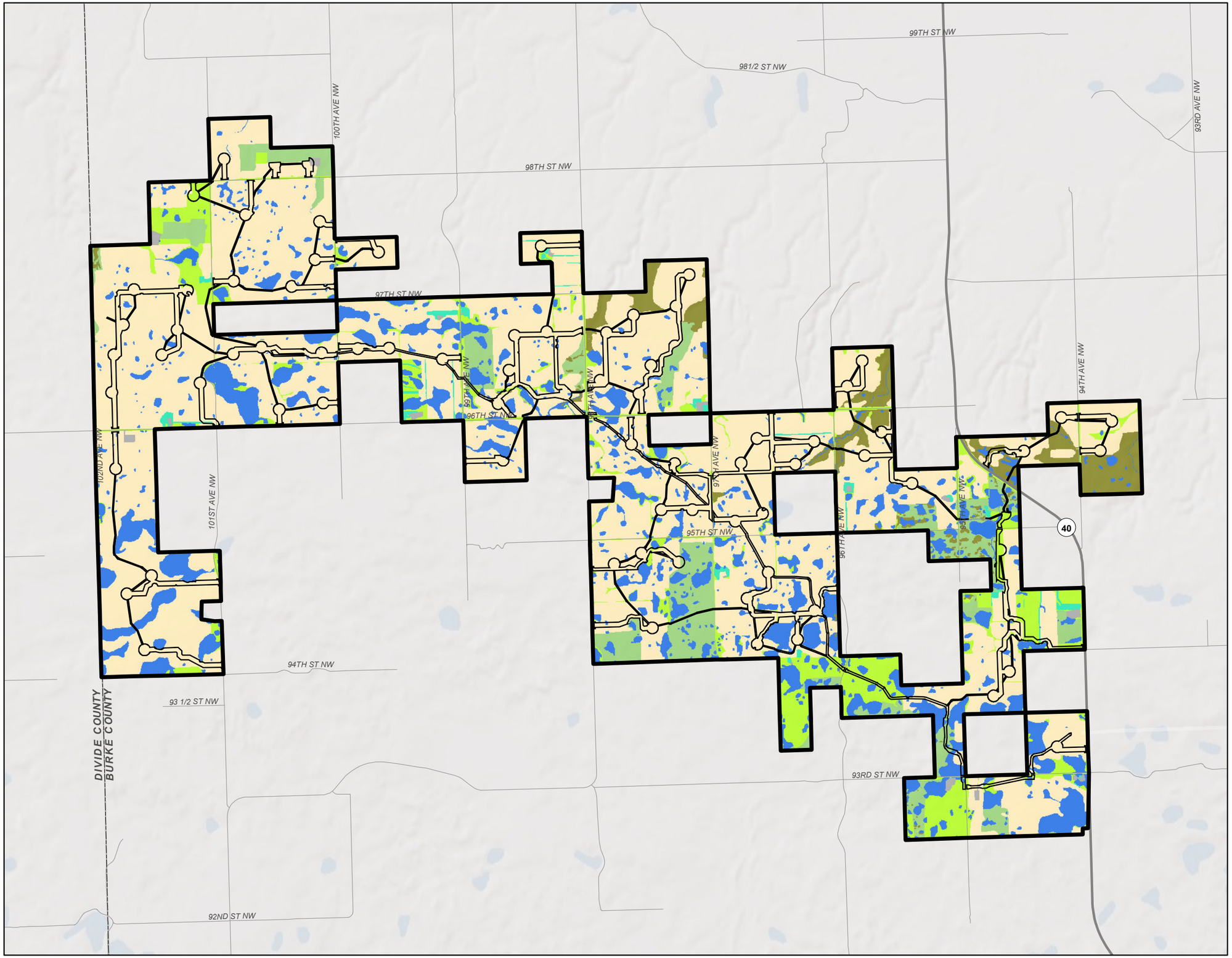
N W E S

Figure 2-2

National Wetlands Inventory and Surface Waters

Northern Divide Wind Energy Center
Burke County, ND

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary

Site Plan

- Northern Divide Wind Energy Center Project Area
- Construction Easement

Land Cover Classifications

- Cropland
- Broken Grassland
- Unbroken Grassland
- Forest/Shrubland
- Tree Row
- Wetland
- Existing Infrastructure

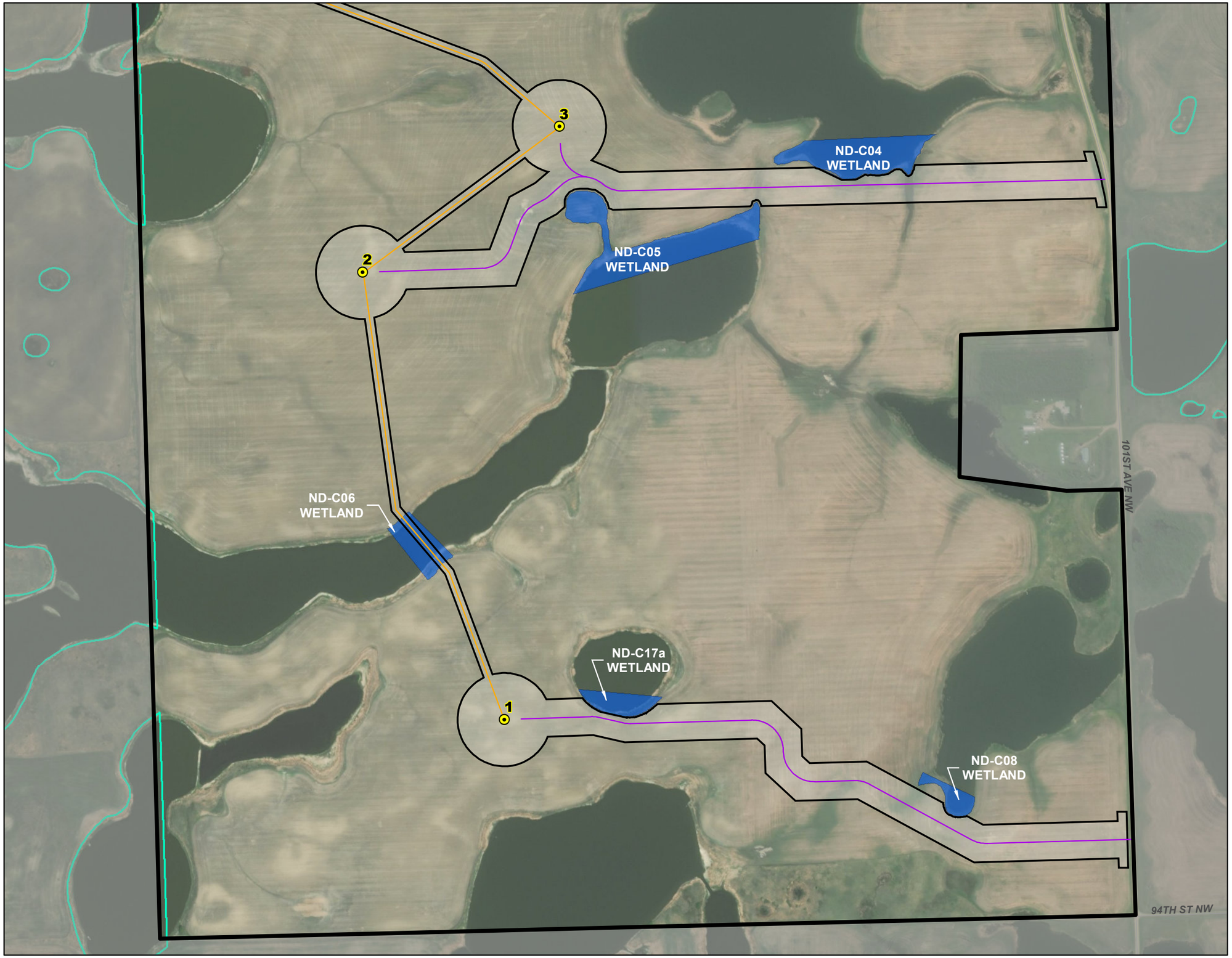
0 0.5 1 1.5 Miles

Figure 2-3
Land Use Classification

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

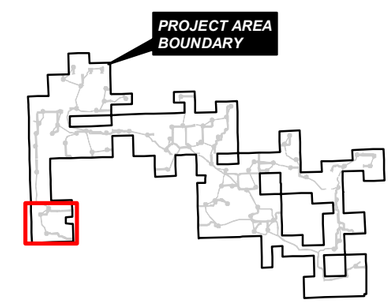


Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



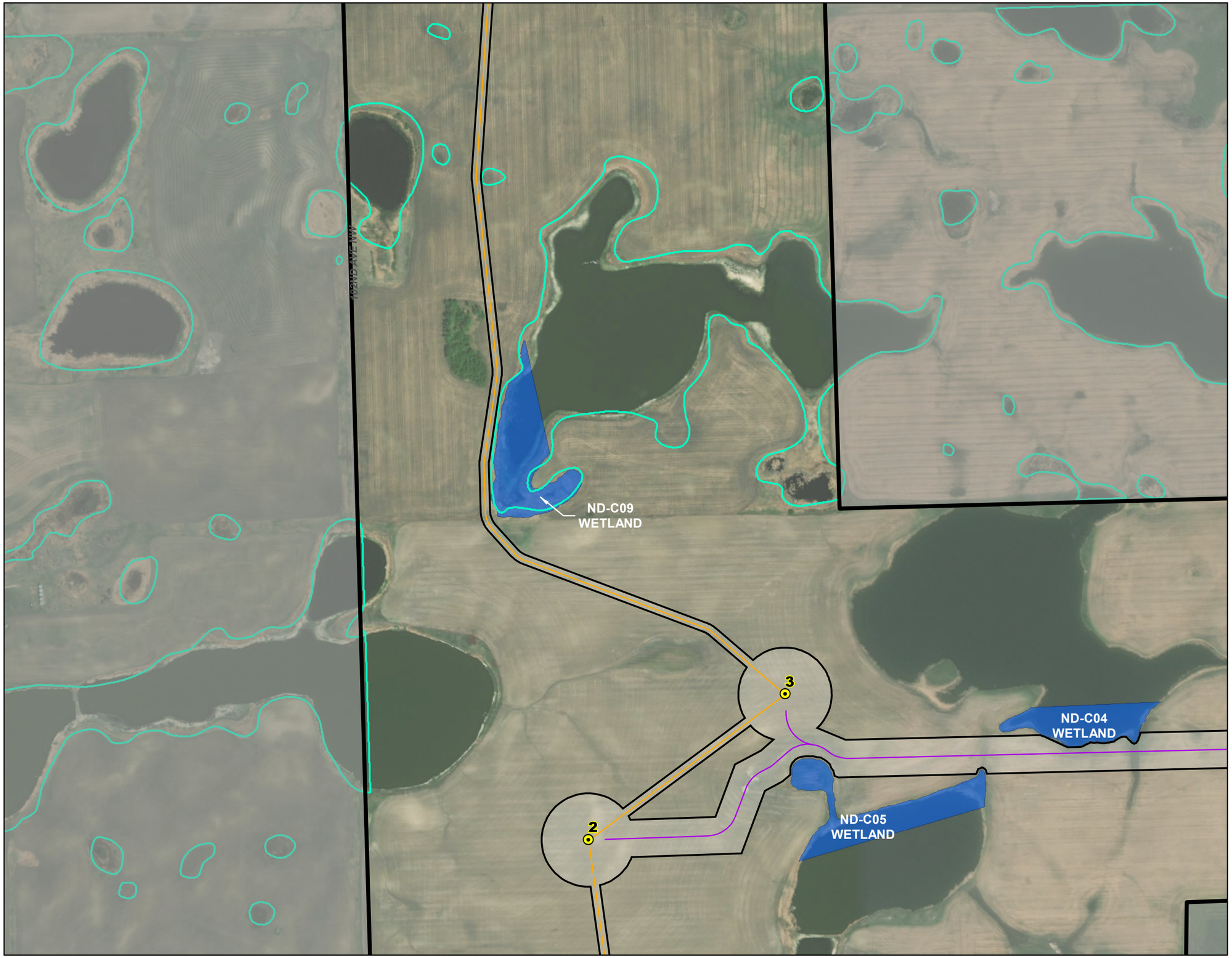
0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 1 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

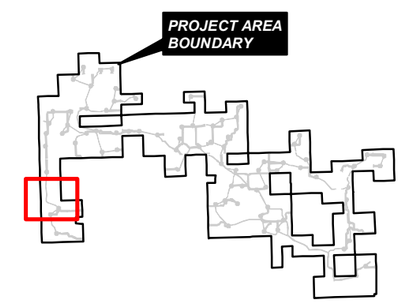


Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 2 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

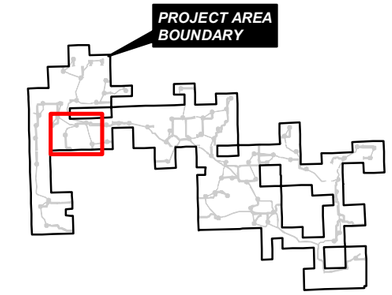
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Temporary MET Tower
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 3 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

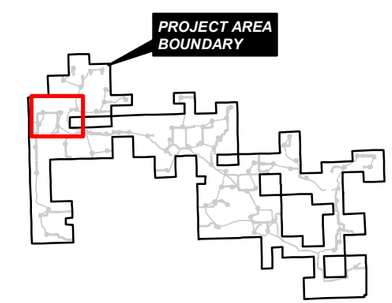
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Permanent MET Tower
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 4 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.

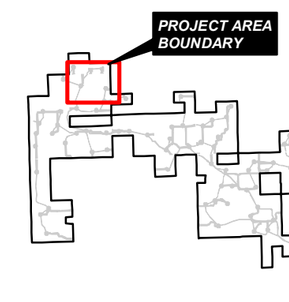


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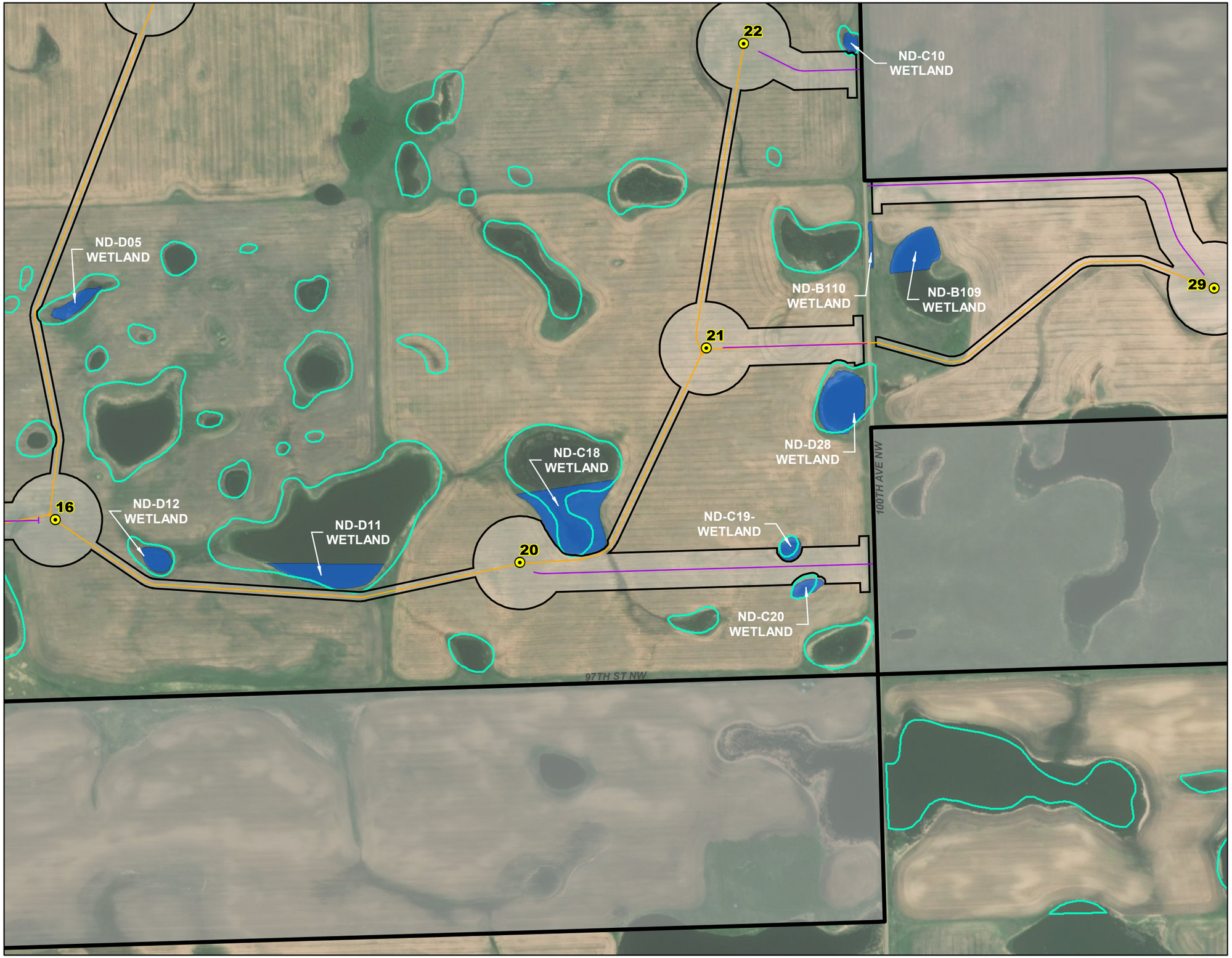
Figure 3-1
Delineated Wetlands
Map 5 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM



Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.

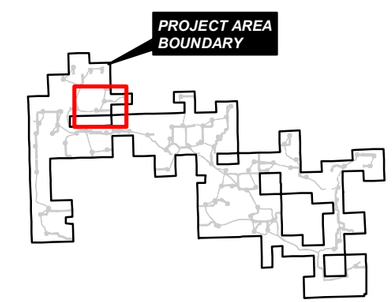


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Figure 3-1
Delineated Wetlands
Map 6 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

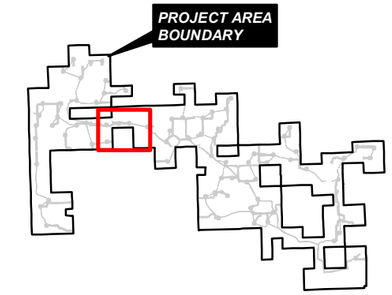
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 7 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

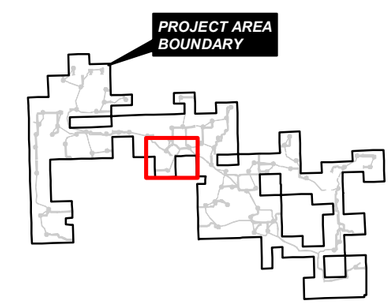
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland
- Delineated Stream

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 8 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

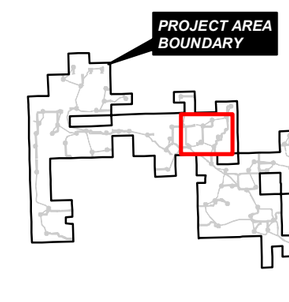
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland
- Delineated Stream

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 9 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

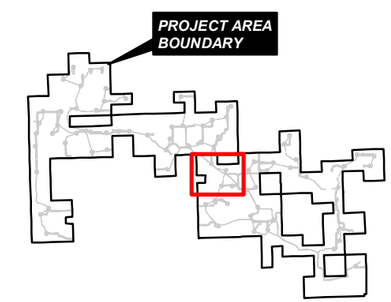
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 10 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

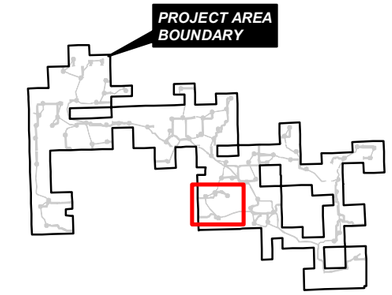
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Temporary MET Tower
- ADLS Radar Tower
- Access Road
- Collection Line
- Crane Path
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 11 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

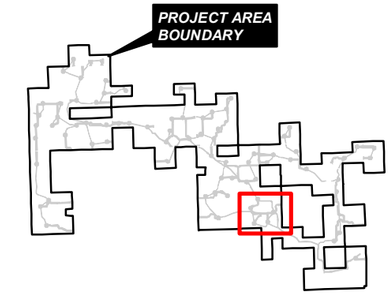
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Alternative Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



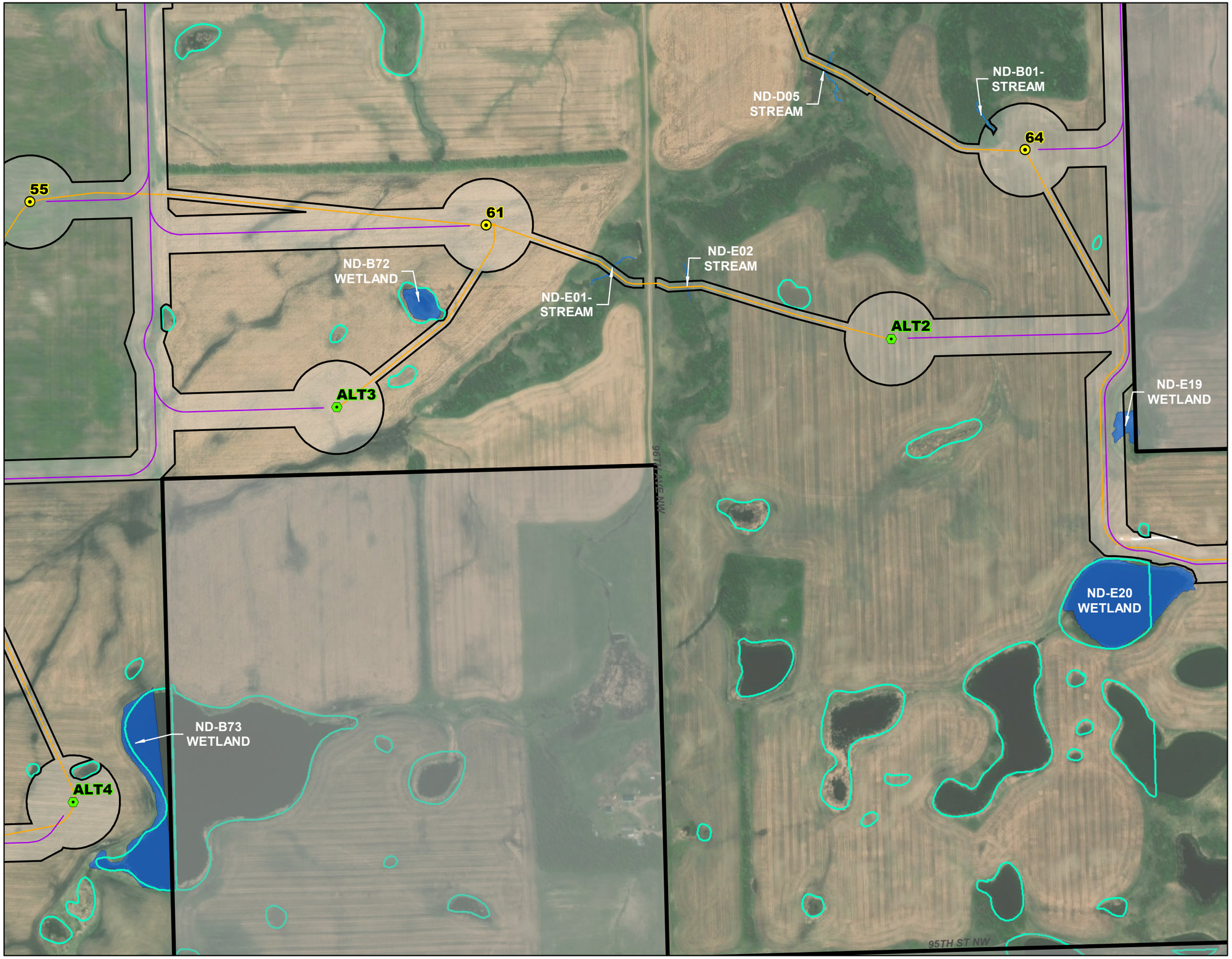
0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 12 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

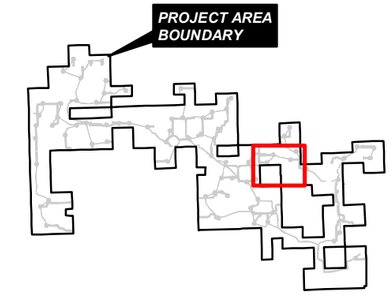


Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Alternative Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland
- Delineated Stream

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 13 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

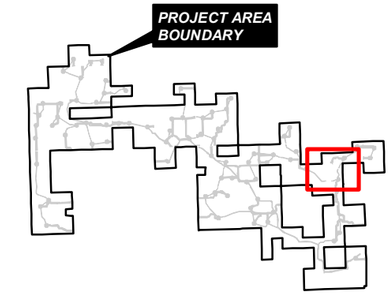
AECOM

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland
- Delineated Stream

Contractor will bore collection lines crossing all wetlands and roads.



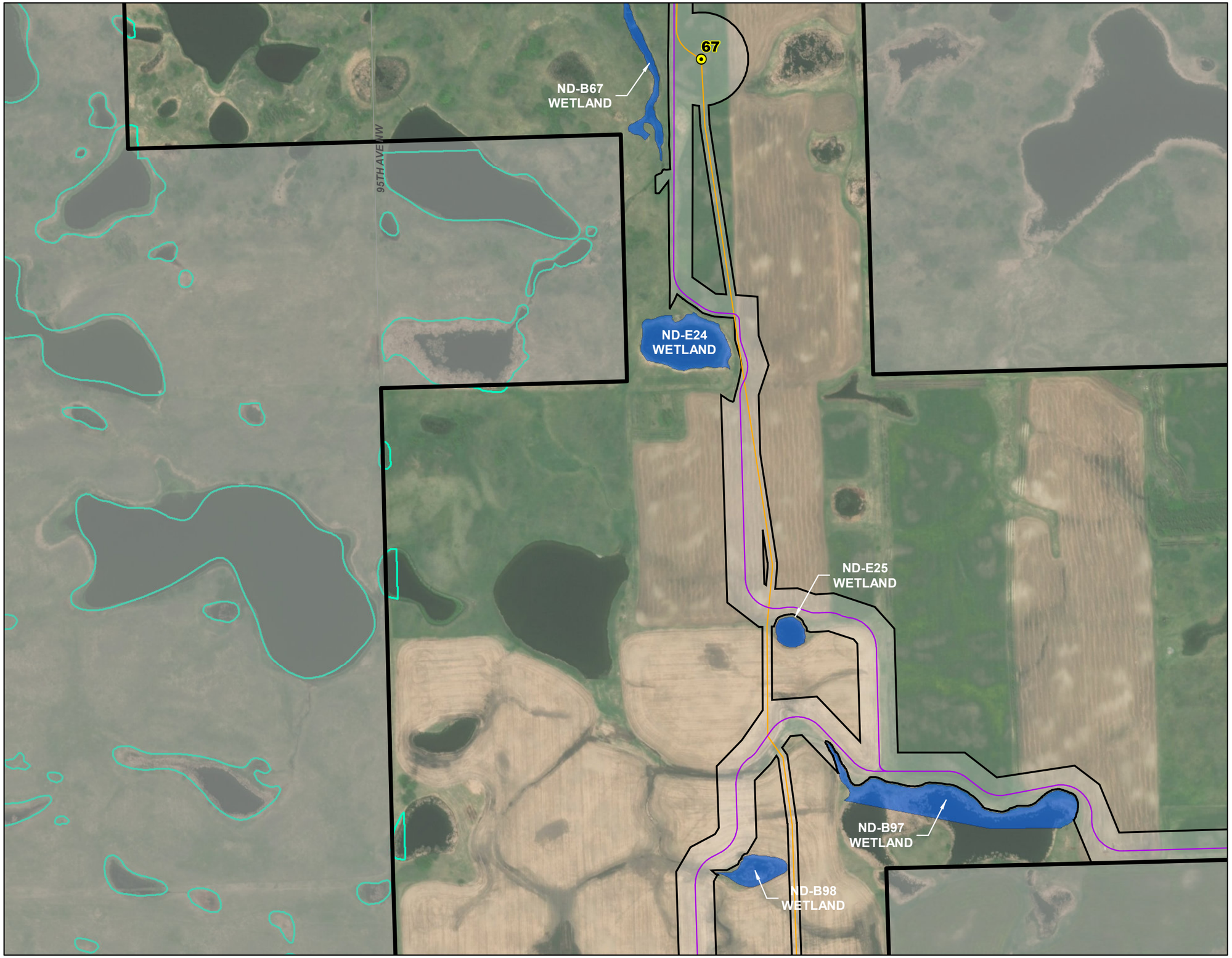
0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 14 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

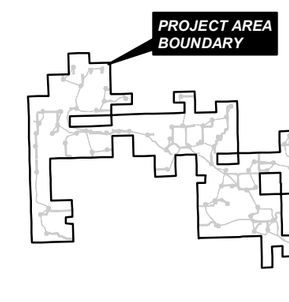


Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



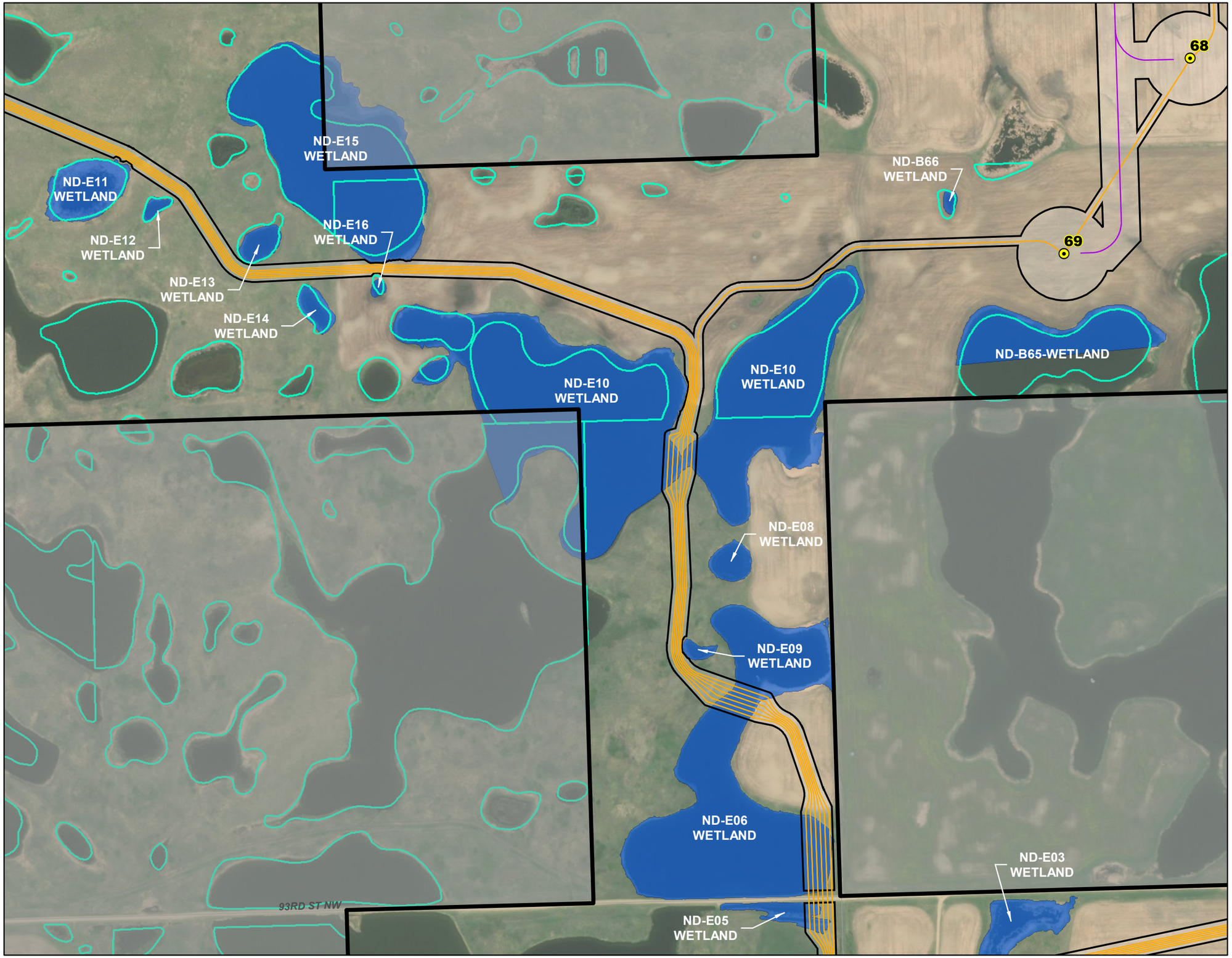
0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 15 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

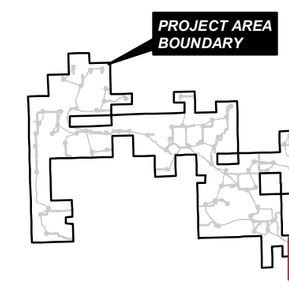


Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 16 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

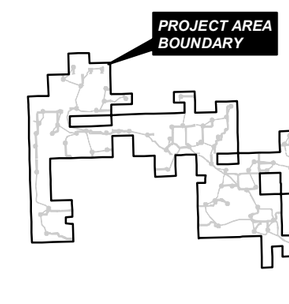
69
ND-B65-WETLAND
ND-E10 WETLAND
40
ND-B04 WETLAND
ND-E08 WETLAND
ND-E09 WETLAND
ND-B03 WETLAND
70
ND-E02 WETLAND
ND-B02 WETLAND
ND-B01 WETLAND
ND-E06 WETLAND
ND-E03 WETLAND
93RD ST NW
ND-E05 WETLAND
ND-E01 WETLAND
ND-E04 WETLAND
95TH AVE NW
ND-E03 WETLAND

Legend

Site Plan

- Northern Divide Wind Energy Center Project Area
- Primary Turbine
- Access Road
- Collection Line
- Batch Plant
- Laydown Yard, O&M Building & Substation
- Construction Easement
- USFWS Wetland Easement
- Delineated Wetland

Contractor will bore collection lines crossing all wetlands and roads.



0 500 1,000 Feet

Figure 3-1
Delineated Wetlands
Map 17 of 17

Northern Divide Wind Energy Center
Burke County, ND

N W E S

AECOM

Appendix A
USACE Nationwide Permits General and Regional Conditions

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. 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.

(d) 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.

(e) 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.

(f) 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. <u>Migratory Birds and Bald and Golden Eagles.</u> 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. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects,

both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

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 e-mail, 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 e-mail 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 engineer will 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.

District Engineer's Decision

In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and

cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

1. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site- specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences 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. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

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

1. **Wetlands Classified as Peatlands – Revoked for use**

All NWPs, 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 NWPs 3, 5, 20, 32, 38 and 45 permittees must notify the Corps in accordance with General Condition 32 (PCN) prior to initiating any regulated activity impacting peatlands.

3. **Waters Adjacent to Natural Springs – Preconstruction Notification Requirement**

For all NWPs permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 – PCN Requirement**

For all NWPs permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 NWPs**

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

NWP 7 – Outfall Structures and Associated Intake Structures and NWP 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.

NWP 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

NWP 13 – Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 U.S.

NWP 23 – Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 32 (PCN) prior to initiating any regulated activity. In addition to information required by General Condition 32 (PCN), 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– PCN

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 (PCN) 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

Appendix B
Photographic Log

Northern Divide Wind Energy Center

Photo No.:	Date:
1	**09/09/2019**

Description:

ND-C02-WETLAND

Overview photo facing south. Photo shows the wetland vegetation marking the edge of the wetland.

Photo No.:	Date:
2	**09/09/2019**

Description:

ND-C03-WETLAND

Soil pit test of wetland soil. Soil shows significant amount of gleying, indicating hydric soil.

Northern Divide Wind Energy Center

Photo No.:	Date:
3	**09/10/2019**

Description:

ND-C17-WETLAND

Overview photo facing west. Photo shows wetland surface water surrounded by obligate vegetation.

Photo No.:	Date:
4	**09/10/2019**

Description:

ND-C17-WETLAND

Soil pit test of wetland soil. Soil shows signs of redoximorphic concentrations in the soil matrix.

Northern Divide Wind Energy Center

Photo No.:	Date:
5	**09/22/2019**

Description:

ND-B93-WETLAND

Overview photo facing south. Photo shows wetland surface water surrounded by obligate vegetation.

Photo No.:	Date:
6	**09/22/2019**

Description:

ND-B93-WETLAND

Soil pit test of wetland soil. Soil shows signs of redoximorphic concentrations in the soil matrix.

Wetlands and Other Waters Delineation Report

Northern Divide 345-kV Transmission Line
Northern Divide Wind, LLC
Burke and Mountrail Counties, North Dakota

Prepared for:

Northern Divide Wind, LLC
700 Universe Boulevard
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Prepared by:

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AECOM

January 2020

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1.0 INTRODUCTION

Northern Divide Wind, LLC (Northern Divide Wind), a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC, is proposing to construct the Northern Divide 345-kV Transmission Line (Project) in Burke and Mountrail Counties, North Dakota (**Figure 1-1**). This report is in support of the Northern Divide 345-kV Transmission Line Consolidated Application to the North Dakota Public Service Commission for a Certificate of Corridor Compatibility and Route Permit (Case Number PU-19-377).

AECOM delineated wetlands and other waters in support of the Project from August to November 2019. Other waters can include, but are not limited to, streams, ponds, impoundments, prairie potholes, and lakes. Presented in this report are descriptions of the methodology, results, and conclusions of the delineations. Terms used in this report are applicable to North Dakota Administrative Code (N.D. Admin Code) Article 69-06 and North Dakota Century Code (N.D.C.C.) Section 49-22 and are defined in **Table 1-1.** Northern Divide Wind will avoid direct impacts to wetlands and other waters, regardless of their U.S. Army Corps of Engineers (USACE) jurisdictional status.

Table 1-1 Project Terms

Term	Definition/Description
Project Route	In accordance with N.D.C.C. Section 49-22-03(11), “Route” means the location of an electric transmission facility within a designated corridor. The Project Route is approximately 41 miles long.
Project Right-of-Way (ROW)	The area around the Project Route where easements were acquired. The Project ROW is the typical easement that will be used during construction and maintained during the life of the Project. The Project ROW is typically 150 feet wide. The Project ROW encompasses the Project Route. The environmental analysis presented within this report applies to the Project ROW.
Study Corridor	The Study Corridor analyzed for the Project is one-mile wide (0.5 miles on either side of the Project Route) and encompasses approximately 25,776 acres. Although Northern Divide Wind has selected a route, the Study Corridor is presented within this report for any unanticipated issues that could arise during construction that would require a re-route outside the Project ROW and within the Study Corridor and the data collected within the Study Corridor would be used to facilitate a re-route.

1.1 Project History

In 2017, Burke Wind, LLC proposed a 345-kV transmission line in Burke and Mountrail Counties (Previous Project). In the development of the Project, Northern Divide Wind applied wetland determinations and delineations conducted for the Previous Project because of significant overlap. The Previous Project’s wetlands assessment was conducted by Atwell, LLC (Atwell) from May to August 2018 (**Appendix A**).

In redesigning the Project and Wind Energy Center, Northern Divide Wind incorporated the feedback provided on the Previous Project design by the North Dakota Public Service Commission, the NDGFD, USFWS, and other stakeholders. Northern Divide Wind then redesigned the Wind Energy Center, which resulted in a modification to the northern five miles of the Project Route.

1.2 Project Summary

The Project will convey power from the planned Northern Divide Wind Energy Center (Wind Energy Center) to the point of interconnection at the existing Basin Electric Power Cooperative Tande Substation. The Project runs in a north-south direction and is approximately 41 miles long, with 23 miles in Burke County and 18 miles in Mountrail County. The Project begins with a connection to the Wind Energy Center

collection substation in Burke County and terminates at the interconnection point at the Tande Substation in Mountrail County.

2.0 ENVIRONMENTAL ANALYSIS

2.1 Soils

AECOM acquired soils data from a United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey site-specific soil report (Soil Survey Staff 2020). There are 50 soil map units consisting primarily of loams, silty loams, and silty clay loams. Ten soil map units have a hydric soil component based on their drainage class. The drainage classes present are somewhat poorly drained, poorly drained, and very poorly drained. **Tables 2-1** and **2-2** describe drainage class and hydric characteristics, respectively.

Table 2-1 Drainage Class Description

Drainage Class	Drainage Class Description
Somewhat poorly drained	Water is removed slowly so that the soil is wet at a shallow depth for significant periods during the growing season. The occurrence of internal free water commonly is shallow to moderately deep and transitory to permanent. Wetness markedly restricts the growth of mesophytic crops, unless artificial drainage is provided. The soils commonly have one or more of the following characteristics: low or very low saturated hydraulic conductivity, a high-water table, additional water from seepage, or nearly continuous rainfall.
Poorly drained	Water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. The occurrence of internal free water is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season so that most mesophytic crops cannot be grown, unless the soil is artificially drained. The soil, however, is not continuously wet directly below plow-depth. Free water at shallow depth is usually present. This water table is commonly the result of low or very low saturated hydraulic conductivity of nearly continuous rainfall, or of a combination of these.
Very poorly drained	Water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season. The occurrence of internal free water is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. If rainfall is high or nearly continuous, slope gradients may be greater.

Source: Soil Survey Division Staff (1993)

Table 2-2 Hydric Soil Characteristics within the Project ROW

Map Unit Name	Area (acres)	Approximate Percent (%) of Project ROW	Drainage Class
Parnell silty clay loam	9.51	1.24	Very Poorly drained
Divide loam	7.46	0.97	Somewhat poorly drained
Southam silty clay loam	7.18	0.93	Very Poorly drained
Harriet loam, occasionally flooded	4.76	0.62	Poorly Drained
Korchea-Fluvaquents complex, channeled, frequently flooded	3.86	0.5	Somewhat poorly drained
Hamerly-Tonka complex	3.81	0.5	Somewhat poorly drained
Vallers loam, moderately saline,	3.2	0.42	Poorly Drained
Vallers, moderately saline-Parnell complex	2.89	0.38	Poorly Drained
Parnell silt loam	1.13	0.15	Very Poorly drained
Regan silt loam, saline, occasionally flooded	0.58	0.08	Poorly Drained

Source: Soil Survey Staff (2020)

2.2 Geography and Topography

The Project spans three Class IV ecoregions which are more detailed ecoregions for state-level applications (Bryce et al. 1996): Northern Missouri Coteau, Missouri Coteau Slope, and River Breaks. The Northern Missouri Coteau lies in a transition zone to a more boreal climate to the north and a more arid climate to the west. Willow and aspen, southern outliers of aspen parkland to the north, may occur at wetland margins. The Missouri Coteau Slope has a simple drainage pattern and fewer wetland depressions than the Missouri Coteau. Due to the level to gently rolling topography, there is more cropland than on the Missouri Coteau. Cattle graze on the steeper land that occurs along drainages.

2.3 Hydrology

The USFWS National Wetlands Inventory (NWI) and U.S Geological Survey National Hydrography Dataset (NHD) were used to identify potential surface waters (USFWS 2018, USGS 2020, **Figure 2-2**). This data served as a precursor for field delineations. The Project is located within the Lake Sakakawea Basin (USGS Cataloging Unit: 10110101), which is further divided into sub-watersheds (**Table 2-3**) within the Missouri River major watershed (USGS 2020). The Project spans the White Earth River, Paulsen Creek, and numerous small drainages.

Table 2-3 Sub-Watersheds within the Project ROW

Sub-Watershed Name	12-Digit Hydrologic Unit Code
Red Lake	101101011201
Smishek Lake	101101011301
Powers Lake	101101011305
Paradise Meadow-White Earth River	101101011306
Cottonwood Lake	101101011307
Big Butte-White Earth River	101101011308
Beauty Valley-Paulson Creek	101101011403
Tioga Municipal Airport-Paulson Creek	101101011404

Source: USGS (2019)

2.4 Vegetation and Land Use Cover

The Project is located in rural North Dakota in an area predominantly comprised of cultivated land, hayfields, pasturelands, and grasslands. This area is associated with mixed-grass prairie (Dyke et al. 2015). Vegetation of the mixed-grass prairie consists mainly of Western wheatgrass (*Pascopyrum smithii*), little bluestem (*Schizachyrium scoparium*), purple prairie clover (*Dalea purpurea*), and common yarrow (*Achillea millefoium*) with prairie cordgrass (*Spartina pectinata*) and reed canary grass (*Phalaris arundinacea*) occurring in low areas. As such, agriculture supporting both livestock grazing and crops is a major land use and most of the native prairie has been converted to wheat, canola, and other commercial crops. Wooded areas are limited to shelterbelts between fields, windbreaks surrounding farmsteads, along drainages, and near wetlands.

A desktop land use classification was completed using current and historical Google Earth aerial imagery (Google Earth 2019) and North Dakota statewide historical imagery from 1957- 1962, 1995-1998, 2003-2006, 2009, 2010, 2012, and 2014-2018 (ND GIS Hub 2019). Parcels of land were classified based on features such as rock piles indicating extensive mechanized rock clearing; presence and amount of trees and shrubs; field edge changes; absence of scattered rocks; straight line features indicating plowing, disking, harvesting, or planting; or any other features indicating human disturbance. Land use was grouped into seven different categories and each category was defined as follows:

1. Cropland: parcels of land that are currently being used for agricultural crop production.
2. Broken Grassland: grassland where the soil has been historically disturbed by tilling, construction, or other mechanical methods.
3. Unbroken Grassland: grassland where the soil has not been disturbed by tilling, construction, or other mechanical methods. Native prairie is considered unbroken grassland. Areas used as pasture and hayland that have not been cultivated are also considered unbroken grassland (e.g., cultivated or extensive mechanized rock clearing) are also considered unbroken grassland.
4. Tree Row: deliberately planted tree rows.
5. Forest/Shrubland: native forested areas that were not deliberately planted and areas predominantly vegetated with shrubs.
6. Existing infrastructure: residences, farmsteads, oil well pads.
7. Wetland: wetlands and other waters.

Once land cover features were evaluated, Google Earth and geographic information system (GIS) mapping software were used to produce a digital data layer of polygons delineating the land use. See

Table 2-4 below for the land use within the Project ROW. Wetlands and other land uses are presented in **Figure 2-3**.

Table 2-4 Land Use Classification within the Project ROW

Land Cover	Acreage within Project ROW [1]	Percentage of Project ROW [1]
Cropland	328	44%
Unbroken Grassland	280	38%
Wetland	72	10%
Broken Grassland	46	6%
Existing Infrastructure	10	1%
Forest/Shrubland	8	<1%
Tree Row	<1	<1%

[1] Rounded to the nearest whole number.

2.5 Precipitation and Growing Season

The NRCS Climate Analysis for Wetlands (WETS) Tables provide historical data based on a 30-year average (1976-2006) of temperature and precipitation data from the Powers Lake 1N monitoring station (USDA 2020). The WETS Table, which includes the records of 30 years of precipitation, estimates the growing season (days with an average temperature >32°F with a probability of 70 percent) to occur from May 19 through September 13. The average annual precipitation is 15.48 inches, with an average monthly precipitation exceeding two inches in May, June, and July. AECOM field surveys were completed in August, September, October, and November, where monthly precipitation reached 2.2, 1.54, 1.22, and 0.71 inches, respectively. The average monthly precipitation during surveys in 2019 was consistent with the average for each month historically. Annual average snow fall is 38.9 inches.

3.0 REGULATORY SETTING

3.1 Federal Regulations

3.1.1 Clean Water Act

All discharges of dredged or fill material into jurisdictional waters of the United States that result in permanent or temporary losses to "waters of the United States" (WOTUS), are regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Additionally, the USACE regulates projects in navigable waters under Section 10 of the Rivers and Harbors Act. As defined in 33 Code of Federal Regulations (CFR) Part 328(a), the WOTUS are:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOTUS under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 123.11(m) which also meet the criteria of this definition) are not WOTUS.
8. WOTUS do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the United States Environmental Protection Agency (EPA).

Under USACE regulations, wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR § 328.3(c)(4)).

In the absence of wetlands in or adjacent to non-tidal waters, the lateral extent of USACE jurisdiction is determined by the ordinary high water mark (OHWM), which is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR § 328.3(c)(6)).

The USACE Nationwide Permit (NWP) 12: Utility Line Activities authorizes the discharge of dredged or fill material into non-tidal WOTUS given that there is not a loss of greater than ½-acre of WOTUS for any "single and complete project". "Single and complete project" refers to each discrete intersection between Project infrastructure and jurisdictional wetlands and other WOTUS. A Pre-Construction Notification (PCN) to the USACE is required if permanent impacts exceed the 0.10-acre threshold. For permanent impacts less than 0.10-acre no PCN would be required. However, for permanent impacts less than 0.10-acres no PCN would be required. NWP 12 includes Section 10 authority, so that, should wetlands, WOTUS, or Section 10 waters be impacted, this permit will address all such impacts. If a NWP is used or authorized, even if below the PCN threshold, the project must comply with the Endangered Species Act and National Historic Preservation Act. The General and Regional Conditions of the applicable NWPs are included in **Appendix B**

3.1.2 United States Fish and Wildlife Service

The USFWS manages lands including wetland easements within the Project ROW (**Figure 3-1**). These easements are legal agreements between landowners and the USFWS to protect wetlands that are vital to wildlife habitat. The USFWS owns the perpetual rights to certain wetland basins within wetland easements which cannot be burned, drained, filled, or leveled without authorization under a Special Use Permit from the USFWS. The upland portions of wetland easements may be developed without a permit as long as the wetland basins are avoided. However, landowners are permitted to till and farm these areas when they are not wet.

USFWS easements were provided from the USFWS Crosby Wetland Management District for the Study Corridor. Within the Project ROW there are approximately 29 acres of USFWS wetland easements. All Project infrastructure is sited outside of USFWS easements.

3.2 State Regulations

3.2.1 North Dakota Public Service Commission

In accordance with N.D. Admin Code Section 69-06-08-02(3) Transmission Facility Corridor and Route Criteria – Selection Criteria, a corridor or route shall be designated only when it is demonstrated to the commission that any significant adverse effects which will result from the location, construction, and maintenance of the facility as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include the impact upon wetlands. Northern Divide Wind anticipates a negligible/minimal potential effect on wetlands as the Project will avoid direct impacts to all wetlands and other waters.

3.2.2 North Dakota Department of Environmental Quality

North Dakota regulates wetlands through Section 401 water quality certification under the CWA. The North Dakota Department of Environmental Quality (NDDEQ) is the regulatory agency that issues the Section 401 certification. The NDDEQ does not have a permitting program specific to wetlands and defers to regulations under the CWA. Coverage under the NDDEQ National Pollution Discharge Elimination System (NPDES) general construction permit will be obtained prior to the start of construction.

If dewatering of excavations is necessary during construction and as long as the water is known to be uncontaminated, all water will be discharged according to items outlined in the Storm Water Pollution Prevention Plan (SWPPP). If discharge water is suspected to be contaminated, an application for a temporary discharge permit (NDG-070000) will be submitted to the NDDEQ.

3.2.3 North Dakota State Water Commission

The North Dakota State Water Commission (NDSWC) is the regulatory body that permits water-related projects in the state of North Dakota. The NDSWC issues two types of permits relating to wetlands: a Drainage Permit and a Construction Permit. The Surface Drainage Permit is required according to

N.D.C.C. 61-32-03 before draining a pond, slough, lake or sheetwater, or any series thereof, that has a watershed area (i.e., drainage area) of 80 acres or more. The Construction Permit is required according to N.D.C.C. 61-16.1-38 if a water control structure is constructed or modified and is capable of retaining, diverting, or obstructing more than 50 acre-feet of water for dikes, other devices, and low-hazard dams, or 25 acre-feet of water for medium-hazard and high-hazard dams. A conditional or temporary permit for water appropriation is required by the NDSWC if surface water or groundwater will be diverted for construction of the Project. The Project does not meet the criteria for any of the aforementioned NDSWC permits. If surface water or groundwater will be diverted for construction of the Project, a water permit will be required per N.D.C.C. 61-04-02.

4.0 WETLAND AND OTHER WATERS DELINEATION METHODS

4.1 Desktop Analyses

AECOM conducted a desktop analysis to identify probable locations of wetlands and other waters prior to field work as a preparation to the delineation field effort. AECOM also reviewed wetland determinations and delineations conducted by Atwell for the Previous Project (**Appendix A**). The desktop analysis used publicly available online mapping tools, as described in this section below.

The USFWS online Wetlands Mapper tool depicts wetlands mapped as part of the NWI Program. The NWI dataset identified 97 freshwater emergent wetlands and five freshwater ponds as depicted in **Figure 2-2** (USFWS 2020). The freshwater emergent wetlands included 72 PEM1C, 13 PEM1A, six PEM1F, three PEM1Cd, one PEM1Cx, one PEM1Fd, and one PEM1Fx. Definitions of the NWI classification codes are in **Table 4-1**.

Table 4-1 NWI Classification Definitions

NWI Classification Code	Definition
PEM1A	palustrine, emergent, persistent, temporarily flooded
PEM1C	palustrine, emergent, persistent, seasonally flooded
PEM1F	palustrine, emergent, persistent, semi permanently flooded
PEM1Cd	palustrine, emergent, persistent, seasonally flooded, partially drained
PEM1Cx	palustrine, emergent, persistent, seasonally flooded, excavated
PEM1Fd	palustrine, emergent, persistent, semi permanently flooded, partially drained
PEM1Fx	palustrine, emergent, persistent, semi permanently flooded, excavated

Source: USFWS 2020

The NHD was utilized to identify perennial and intermittent streams, ponds, and lakes. The online database NHD Viewer tool was queried and found eight intermittent lakes/ponds, 13 perennial lakes/ponds, 16 swamp/marsh, 11 intermittent streams/rivers, and three perennial streams/rivers. NHD are depicted in **Figure 2-2** (USGS 2020).

The NRCS is the source for hydric soils information, as shown in **Table 2-1** in Section 2.1 of this report. Data was obtained and was used to cross-check against field sites that were initially observed to exhibit wetland or surface water conditions. Hydric soils were identified associated with NWI and NHD mapped features (**Figure 2-1**) and the Web Soil Survey was queried for drainage class. A total of 5.78 percent of the Project ROW is classified as somewhat poorly drained, poorly drained, and very poorly drained.

Due to the Project ROW's rural location, no Federal Emergency Management Agency flood rating maps have been developed for the area (USDHS, FEMA 2018).

4.2 Wetland Delineations

AECOM conducted field wetland delineations within select areas not previously covered by the Previous Project's wetland assessment. The wetland delineations were conducted within the Project ROW as well as areas outside the Project ROW from August to November 2019. Wetland delineations for the Project followed methodology from the USACE Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE 2010). The delineation process was utilized to document dominant vegetation, soils, and hydrology in areas of interest (i.e., areas with potential intersections between planned Project infrastructure and potential wetland ecosystems). For a site to be considered a wetland there must be dominance by

hydrophytic vegetation, presence of hydric soils, and characteristic wetland hydrology. Under normal conditions, if a sample plot lacks any of these three criteria, it is considered upland. To determine these three variables, the field team designated paired sample plots, placed at discrete (typically less than 20 feet) distances from one another, for each wetland. One sample plot represented wetland conditions; the other sample plot represented upland conditions. Each sample plot featured a hand-dug soil pit averaging 16 inches in depth. The sample plot also included nested concentric sampling rings for vegetation cover and species identification, as follows:

- Herbaceous vegetation was identified within a 5-foot radius of the sample plot center;
- Sapling/shrub vegetation was identified within a 15-foot radius of the sample plot center; and,
- Trees and woody vines were documented within a 30-foot radius of the sample plot center.

A Wetland Determination Data Form, specific to the Great Plains Region, was completed for each paired wetland and upland sample plot. In cases where wetlands were assessed outside of the growing season, assessed during drought conditions, or when a wetland boundary was difficult to assess, AECOM conservatively mapped the wetland boundaries.

4.2.1 Hydrophytic Vegetation Indicators

The dominant vegetation at each sample plot was identified to species level and each species was assigned a wetland indicator status (**Table 4-2**) using the State of North Dakota 2016 Wetland Plant Lists (Lichvar et al. 2016). The field team used Wetland Plants of the Northern Great Plains (Chadde 2012) and Weeds of the West (Whitson et al. 2009) as field references for identifying unknown plant species.

Hydrophytic vegetation, or plants likely to occur in wetlands, include those species indicated as obligate, facultative wetland or facultative. Upland plants include all other indicators, including unlisted plants. As a general rule, for a sample plot to meet the wetland vegetation criteria, greater than 50 percent of the plants must be hydrophytes.

Table 4-2 Wetland Indicator Status

Indicator Status	Designation	Qualitative Description
Obligate	Hydrophyte	Almost always occur in wetlands under natural conditions (estimated probability >99%).
Facultative Wetland	Hydrophyte	Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands (estimated probability 1%-33%).
Facultative	Hydrophyte	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%- 66%).
Facultative Upland	Non-hydrophyte	Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
Upland	Non-hydrophyte	Almost always occur in non-wetlands under natural conditions (estimated probability >99%).
Not Listed	Non-hydrophyte	Not listed plants are assumed to be upland as defined in the user notes for the 2016 Wetland Plant List.

Source: Cowardin et al. 1979

4.2.2 Hydric Soils Indicators

Soil from each soil pit was evaluated for hue, value, and chroma in each observable horizon using Munsell Soil Color Charts (Gretag/Macbeth 2009). Each soil horizon was also checked for texture and for the presence of redoximorphic features, depleted matrix, saturation, and other specific criteria used to document hydric conditions.

4.2.3 Wetland Hydrology Indicators

Each sample plot was evaluated for the presence of hydrology indicators, as defined by the utilized methodologies. One primary indicator is sufficient to conclude that wetland hydrology is present. In the absence of a primary indicator, two or more secondary indicators are required to conclude that wetland hydrology is present. For each wetland, hydrology was analyzed for all primary and secondary wetland indicators. Once established, the soil pits were left open a sufficient amount of time to allow the apparent high-water table, if present, to stabilize. Depth to surface water, water table, and saturation were recorded when present.

4.2.4 Wetland Mapping

Wetland scientists mapped delineations with a Trimble Geo 7X Global Positioning System (GPS) by walking the outer limit of visibly identifiable wetland vegetation between the paired wetland and upland sample plots. The Trimble Geo 7X GPS unit provides sub-meter survey accuracy (post-processing). The field-collected data were plotted as a map layer using geographic information system (GIS) software. Additionally, the Trimble Geo 7X GPS was used to record the locations of the wetland and upland soil pits. Photographs of select wetlands are provided in the photographic log in **Appendix C**.

4.3 Other Waters Delineations

Since the USACE does not have a data form for other waters for the Great Plains Region, data for other waterbodies, such as streams and ponds, data was recorded on an AECOM Other Waters Data Form. The data form documented the waterbody features, flow characteristics, substrate, and vegetation features. A Trimble Geo 7X GPS was used to record the other waters boundary and delineate the OHWM as applicable.

5.0 WETLANDS AND OTHER WATERS RESULTS

5.1 Wetland Delineation Results

In addition to wetlands and other waters Atwell identified (see Section 5.3), AECOM delineated a total of 82 wetlands in support of the Project with 28 of them located within the Project ROW (**Table 5-1**). Northern Divide Wind will avoid direct, permanent impacts to all wetlands regardless of their jurisdictional status. Wetlands will be spanned, and no structures or Project facilities will be placed in a wetland. Maps depicting the delineated wetlands are included in **Figure 3-1**.

Table 5-1 Delineated Wetlands

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Within Project ROW
	Latitude	Longitude			
ND-A03-WETLAND	48.429097	-102.776057	26	0.00	No
ND-A05-WETLAND	48.488746	-102.690225	19	0.00	Yes
ND-A06-WETLAND	48.491822	-102.689501	19	0.00	No
ND-A07-WETLAND	48.492922	-102.690323	19	0.00	Yes
ND-A08a-WETLAND	48.597364	-102.712690	13	0.00	Yes
ND-A08b-WETLAND	48.596897	-102.711958	13	0.00	No
ND-A09-WETLAND	48.619090	-102.695379	11	0.00	Yes
ND-A10-WETLAND	48.631366	-102.677596	11	0.00	No
ND-A11-WETLAND	48.630479	-102.676909	11	0.00	No
ND-A12-WETLAND	48.632592	-102.678988	11	0.00	No
ND-A13-WETLAND	48.681068	-102.689887	8	0.00	Yes
ND-A16-WETLAND	48.706012	-102.699788	7	0.00	No
ND-A17-WETLAND	48.414129	-102.849467	29	0.00	No
ND-B01-WETLAND	48.765104	-102.767360	1	0.00	No
ND-B02-WETLAND	48.765184	-102.771537	1	0.00	No
ND-B03-WETLAND	48.768054	-102.773364	1	0.00	No
ND-B04-WETLAND	48.770515	-102.765842	1	0.00	No
ND-B05-WETLAND	48.739754	-102.696703	5	0.00	No
ND-B06-WETLAND	48.739536	-102.695423	5	0.00	No
ND-B07-WETLAND	48.738953	-102.695173	5	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Within Project ROW
	Latitude	Longitude			
ND-B08-WETLAND	48.764824	-102.741648	2	0.00	No
ND-B09a-WETLAND	48.764881	-102.744030	2	0.00	No
ND-B09b-WETLAND	48.764411	-102.743470	2	0.00	No
ND-B11-WETLAND	48.765150	-102.744529	2	0.00	No
ND-B12-WETLAND	48.765310	-102.744215	2	0.00	No
ND-B13-WETLAND	48.766789	-102.743585	2	0.00	No
ND-B14-WETLAND	48.766996	-102.747221	2	0.00	No
ND-B15-WETLAND	48.765158	-102.746968	2	0.00	No
ND-B16-WETLAND	48.764854	-102.749093	2	0.00	No
ND-B17-WETLAND	48.764682	-102.750230	2	0.00	No
ND-B18-WETLAND	48.764419	-102.750977	2	0.00	No
ND-B19-WETLAND	48.764770	-102.752113	2	0.00	No
ND-B20-WETLAND	48.765254	-102.751248	2	0.00	No
ND-B21-WETLAND	48.767916	-102.755351	1 and 2	0.00	Yes
ND-B22-WETLAND	48.768903	-102.757391	1 and 2	0.00	Yes
ND-B23-WETLAND	48.769020	-102.760451	1	0.00	Yes
ND-B24-WETLAND	48.769822	-102.761659	1	0.00	Yes
ND-B25-WETLAND	48.764261	-102.732914	3	0.00	Yes
ND-B26-WETLAND	48.766284	-102.734920	3	0.00	No
ND-B27-WETLAND	48.767962	-102.738183	2	0.00	Yes
ND-B28-WETLAND	48.769486	-102.738229	2	0.00	No
ND-B29-WETLAND	48.768009	-102.739822	2	0.00	No
ND-B30-WETLAND	48.750436	-102.720224	4	0.00	Yes
ND-B31-WETLAND	48.751679	-102.720872	3	0.00	No
ND-B32-WETLAND	48.753281	-102.719972	3	0.00	Yes
ND-B33-WETLAND	48.757103	-102.721420	3	0.00	Yes
ND-B34-WETLAND	48.757138	-102.727046	3	0.00	Yes

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Within Project ROW
	Latitude	Longitude			
ND-B35-WETLAND	48.758330	-102.726277	3	0.00	No
ND-B36-WETLAND	48.756650	-102.728895	3	0.00	No
ND-B37-WETLAND	48.756291	-102.730913	3	0.00	No
ND-B38-WETLAND	48.756951	-102.733666	3	0.00	No
ND-B39-WETLAND	48.759730	-102.732523	3	0.00	Yes
ND-B40-WETLAND	48.761048	-102.732992	3	0.00	Yes
ND-B41-WETLAND	48.762071	-102.732408	3	0.00	Yes
ND-B42-WETLAND	48.762903	-102.731682	3	0.00	No
ND-B43-WETLAND	48.740094	-102.721622	4	0.00	No
ND-B44-WETLAND	48.740846	-102.720093	4	0.00	No
ND-B45-WETLAND	48.741484	-102.721087	4	0.00	No
ND-B46-WETLAND	48.741546	-102.721450	4	0.00	No
ND-B47-WETLAND	48.742353	-102.722137	4	0.00	No
ND-B48-WETLAND	48.742377	-102.719803	4	0.00	No
ND-B49-WETLAND	48.744926	-102.719310	4	0.00	Yes
ND-B50-WETLAND	48.745677	-102.720839	4	0.00	No
ND-B51-WETLAND	48.747957	-102.719058	4	0.00	Yes
ND-B52-WETLAND	48.749196	-102.720982	4	0.00	No
ND-B53-WETLAND	48.737911	-102.720433	4	0.00	No
ND-B54-WETLAND	48.738776	-102.722812	4	0.00	No
ND-B55-WETLAND	48.737723	-102.698657	5	0.00	Yes
ND-B56-WETLAND	48.738915	-102.700203	5	0.00	Yes
ND-B57-WETLAND	48.739460	-102.699837	5	0.00	No
ND-B58-WETLAND	48.739259	-102.701235	5	0.00	Yes
ND-B59-WETLAND	48.738247	-102.702811	5	0.00	No
ND-B60-WETLAND	48.738812	-102.703828	5	0.00	Yes
ND-B61-WETLAND	48.739693	-102.703586	5	0.00	No

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Within Project ROW
	Latitude	Longitude			
ND-B62-WETLAND	48.739312	-102.705704	5	0.00	Yes
ND-B63-WETLAND	48.738754	-102.711877	4 and 5	0.00	Yes
ND-B64-WETLAND	48.738536	-102.713333	4 and 5	0.00	No
ND-B111-WETLAND	48.748682	-102.719193	4	0.00	Yes
ND-B112-WETLAND	48.741473	-102.718907	4	0.00	Yes
ND-E01-WETLAND	48.763306	-102.775408	1	0.00	No
ND-E02-WETLAND	48.765054	-102.776024	1	0.00	No
ND-F01-WETLAND	48.765001	-102.736590	3	0.00	No
ND-F02-WETLAND	48.760098	-102.728513	3	0.00	No

5.2 Other Waters Delineation Results

AECOM delineated a total of three other waters in support of the Project with one of them located within the Project ROW (**Table 5-2**). Northern Divide Wind will avoid direct, permanent impacts to all other waters regardless of their jurisdictional status. Other waters will be spanned, and no structures or Project facilities will be placed in any other waters. Maps depicting the delineated other waters are included in **Figure 3-1**.

Table 5-2 Delineated Other Waters

Wetland Identification	Approximate Location		Figure 3-1, Map	Temporary or Permanent Impacts (acres)	Within Project ROW
	Latitude	Longitude			
ND-A01-STREAM	48.412899	-102.834468	29	0.00	Yes
ND-A02-STREAM	48.400576	-102.843474	29	0.00	No
ND-A04-STREAM	48.427646	-102.769268	26	0.00	No

5.3 Atwell Wetland Determination and Delineations Results

Wetlands and watercourses identified by Atwell as part of the Previous Project will also be avoided for direct impacts regardless of their USACE jurisdictional status. Atwell identified wetlands and watercourses are also included in **Figure 3-1** and **Appendix A**.

6.0 CONCLUSION

Northern Divide Wind considered all wetlands and other waters into the Project's development, including those delineated and determined by AECOM and Atwell. Wetlands and other waters will be spanned, and no structures or Project facilities will be placed in a wetland or other water. To the extent practicable, Northern Divide Wind will:

- Avoid direct impacts to wetlands and other waters, including temporary impacts, regardless of USACE jurisdictional status.
- Avoid direct impacts to USFWS wetland easements.
- Obtain coverage under the NDDEQ NPDES general construction permit prior to the start of construction.
- Maintain appropriate water and soil conservation practices during construction through the implementation of best management practices outlined in the SWPPP. These practices include silt fencing, temporary reseeding, permanent seeding, mulching, filter strips, erosion blankets, grassed waterways and sod stabilization.
- Delineate and flag wetlands in close proximity to Project features prior to construction.
- Allow stormwater runoff to flow unrestricted.
- Provide contractors with static constraint maps and ensure compliance through onsite environmental construction monitoring.

7.0 LITERATURE CITED

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8.0 ACRONYMS AND ABBREVIATIONS

Atwell, LLC	Atwell
CFR	Code of Federal Regulations
CWA	Clean Water Act
GIS	Geographic Information System
GPS	Global Positioning System
kV	kilovolt
N.D.C.C.	North Dakota Century Code
NDDEQ	North Dakota Department of Environmental Quality
NDSWC	North Dakota State Water Commission
NDGFD	North Dakota Game and Fish Department
NHD	National Hydrography Dataset
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
Northern Divide Wind	Northern Divide Wind, LLC
OHWM	ordinary high-water mark
PCN	Pre-Construction Notification
Project	Northern Divide 345-kV Transmission Line
ROW	right-of-way
SWPPP	Storm Water Pollution Prevention Plan
TNWs	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDHS	United States Department of Homeland Security
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WETS	Climate Analysis for Wetlands
Wind Energy Center	Northern Divide Wind Energy Center
WOTUS	waters of the United States

Figures

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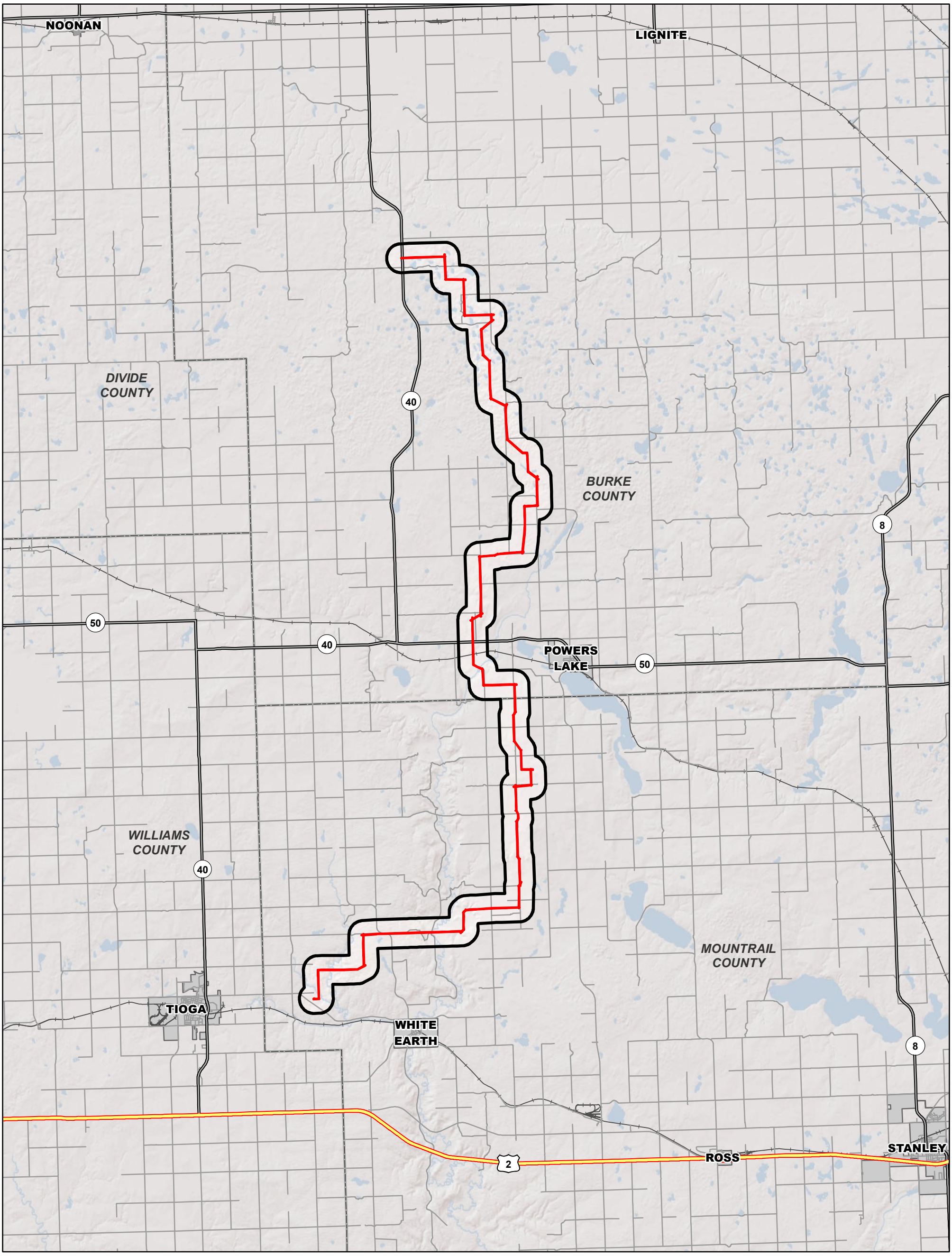


Figure 1-1
Project Location
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties,
North Dakota

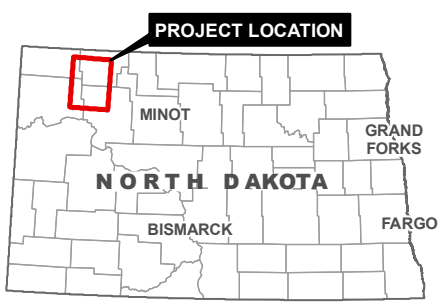
0 2.5 5 Miles

N W E S

AECOM

Legend

- 345-kV Transmission Line Study Corridor
- 345-kV Transmission Line Right-of-Way
- County Boundary
- City Boundary
- US Highway
- State Highway
- County Road
- Railroad



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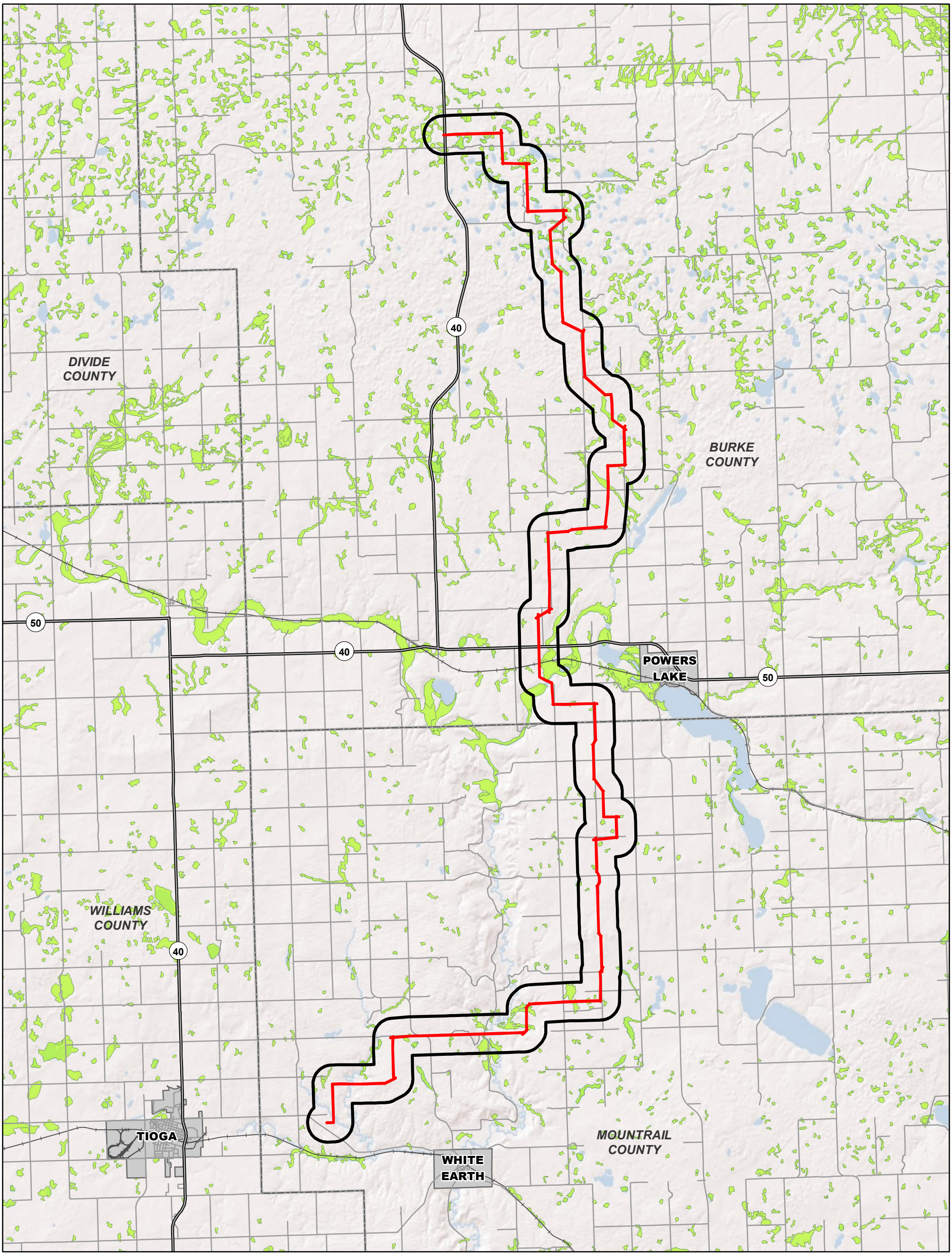
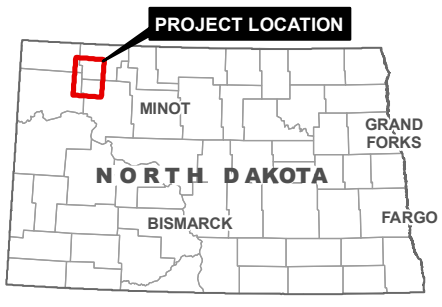


Figure 2-1
Hydric Soils
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties,
North Dakota

Legend
- 345-kV Transmission Line Study Corridor
- 345-kV Transmission Line Right-of-Way
- Hydric Soils
- County Boundary
- City Boundary
- State Highway
- County Road
- Railroad

0 2 4 Miles

N W E S



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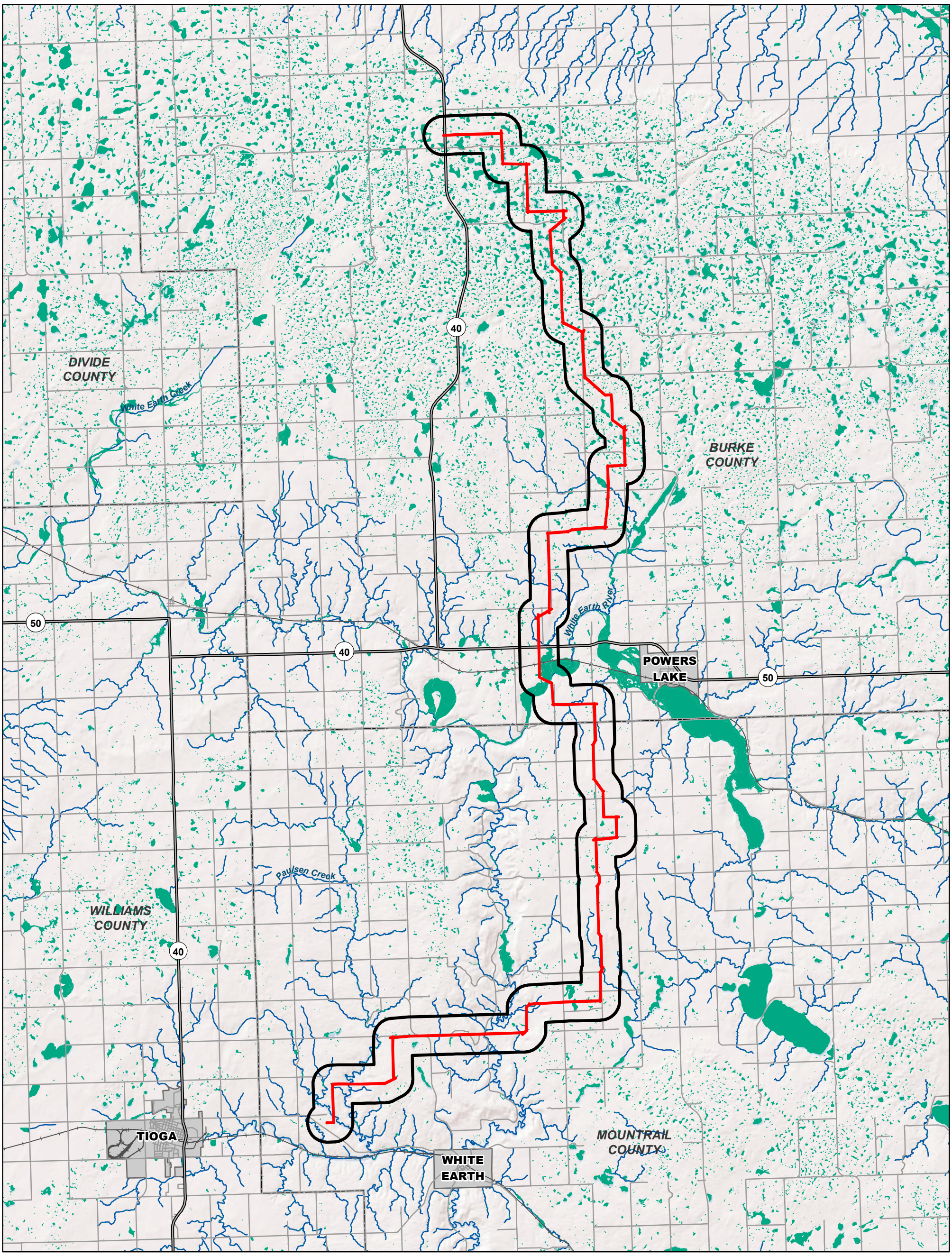


Figure 2-2
National Wetlands Inventory and Surface Waters
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

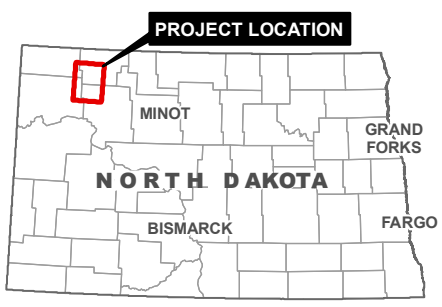
0 2 4 Miles

N W E S

AECOM

Legend

- 345-kV Transmission Line Study Corridor
- 345-kV Transmission Line Right-of-Way
- National Wetlands Inventory (USFWS 2019)
- National Hydrogaphy Dataset (USGS 2019)
- County Boundary
- City Boundary
- State Highway
- County Road
- Railroad



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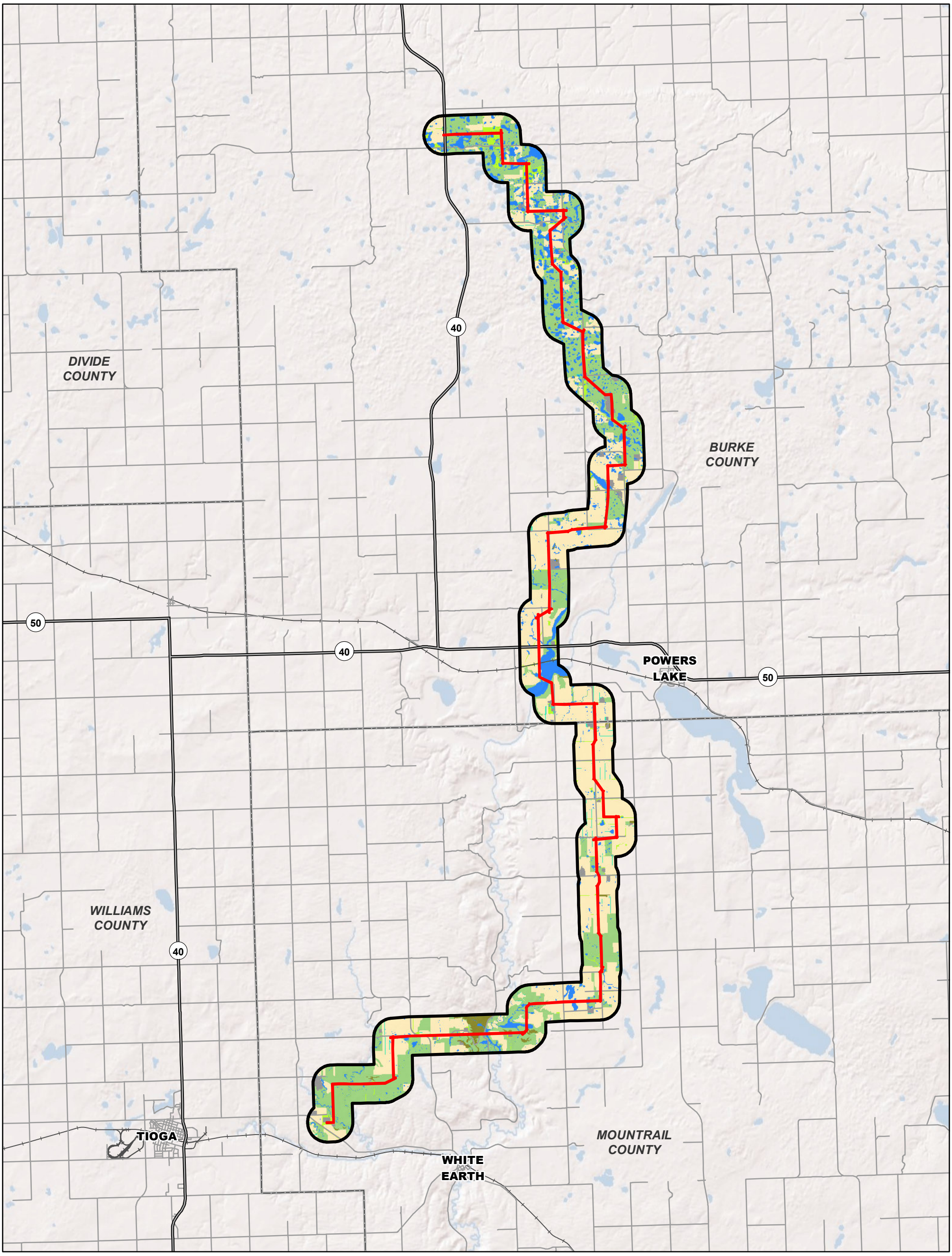
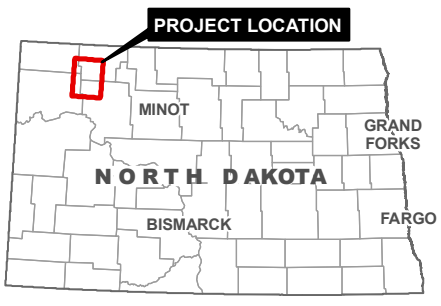


Figure 2-3
Land Use Classification
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Legend
- 345-kV Transmission Line Study Corridor
- 345-kV Transmission Line Right-of-Way
- County Boundary
- State Highway
- County Road
- Railroad

Land Cover
- Cropland
- Broken Grassland
- Unbroken Grassland
- Forest/Shrubland
- Tree Row
- Wetland
- Existing Infrastructure



0 2 4 Miles

N W E S

AECOM

ND-B04 WETLAND
ND-B24 WETLAND
ND-B22 WETLAND
ND-B03 WETLAND
ND-B23 WETLAND
001E
002E
003E
004E
40
ND-B21 WETLAND
ND-B01 WETLAND
ND-B02 WETLAND
ND-E02 WETLAND
93RD ST NW
ND-E01 WETLAND

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 1 of 29

0 250 500 Feet

AECOM

N W E S

Legend

- County Road
- State/Federal Highway
- County Boundary

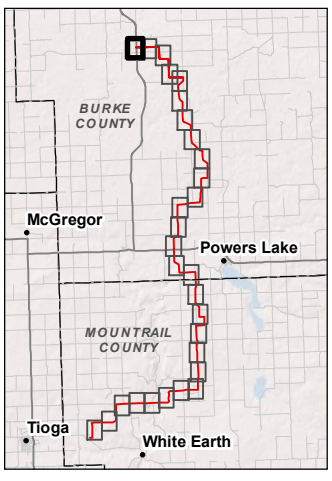
Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



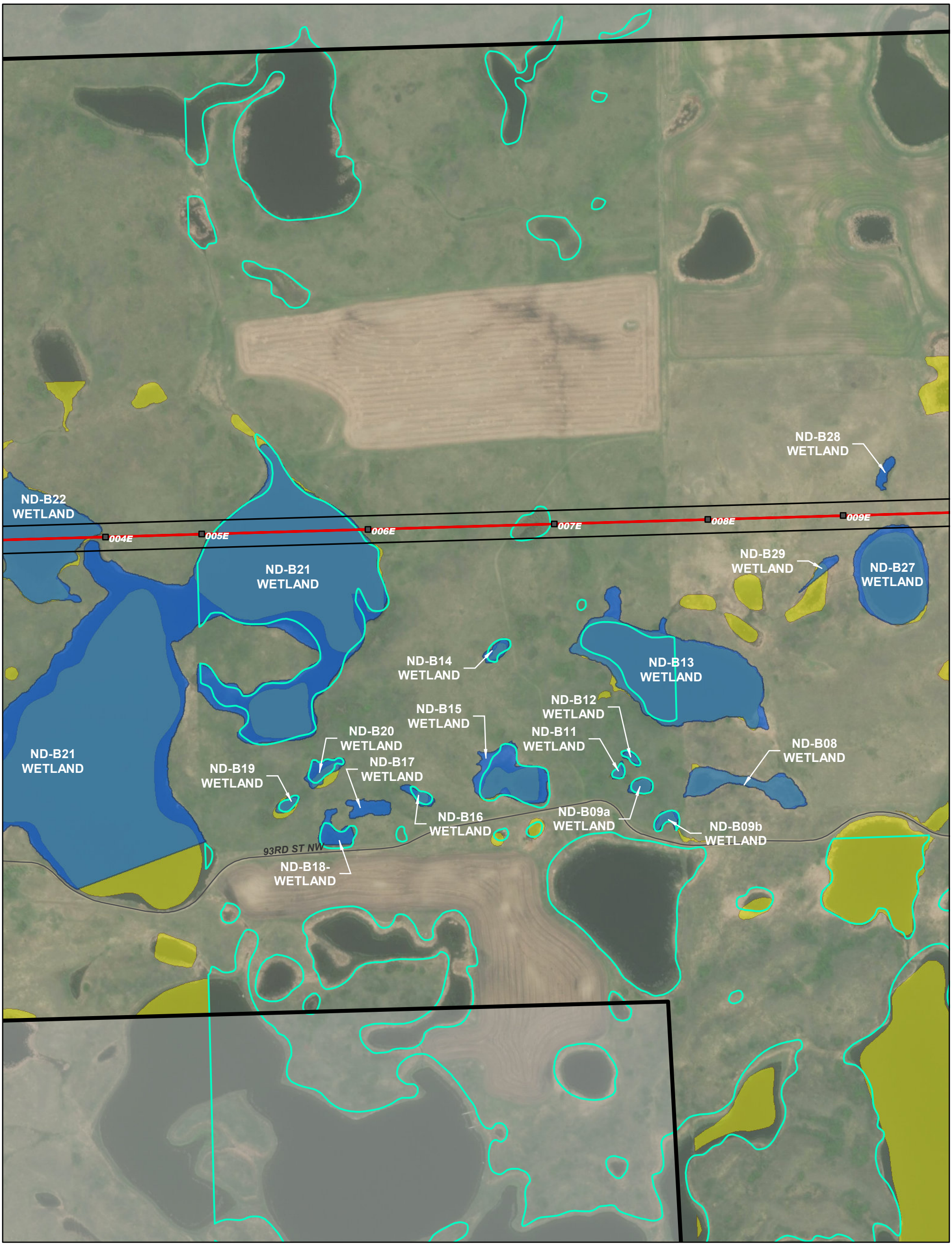


Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 2 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

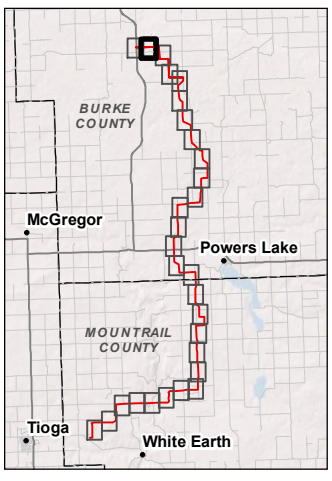
Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



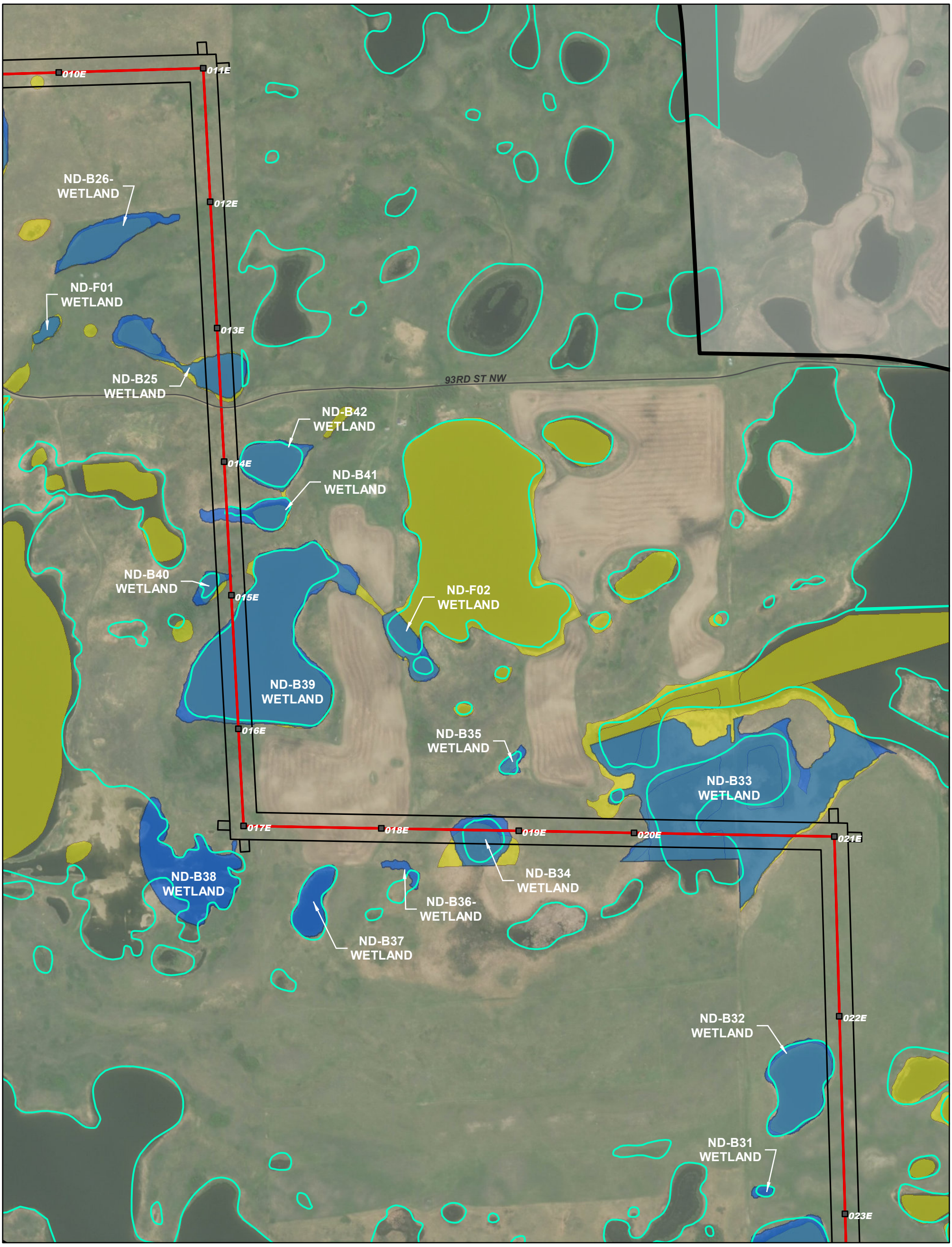


Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 3 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

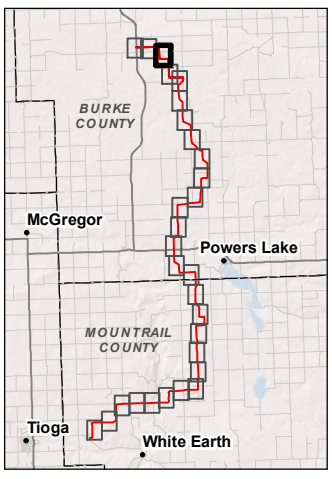
Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



023E
ND-B30 WETLAND
92ND ST NW
ND-B52- WETLAND
024E
ND-B111 WETLAND
ND-B51 WETLAND
025E
ND-B50 WETLAND
026E
ND-B49 WETLAND
027E
ND-B48 WETLAND
ND-B47 WETLAND
ND-B44 WETLAND
ND-B112 WETLAND
ND-B46 WETLAND
ND-B45 WETLAND
028E
ND-B43 WETLAND
92ND AVE NW
033E
029E
030E
031E
032E
ND-B54 WETLAND
ND-B53 WETLAND
ND-B64 WETLAND
ND-B63 WETLAND
91ST ST NW

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 4 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

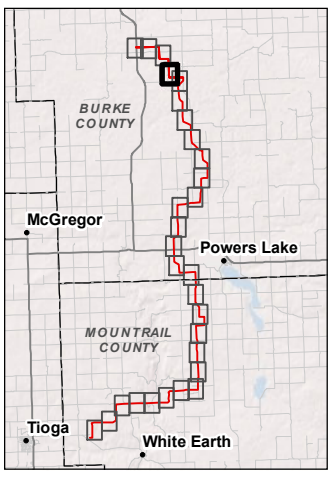
Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



ND-B61 WETLAND
ND-B62-WETLAND
ND-B58 WETLAND
ND-B57 WETLAND
ND-B05 WETLAND
ND-B06 WETLAND
ND-B07 WETLAND
ND-B60 WETLAND
ND-B56 WETLAND
ND-B55 WETLAND
ND-B59 WETLAND
ND-B63 WETLAND
ND-B64 WETLAND
031E
032E
033E
034E
035E
036E
008
009
010
011
012
013
91ST ST NW
91ST AVE NW

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 5 of 29

0 250 500 Feet

AECOM

Legend

County Road
County Boundary

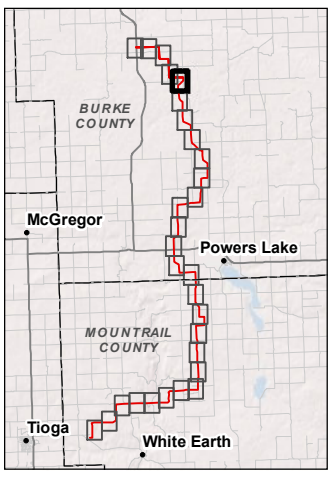
Wetlands

AECOM Delineated Wetland
AECOM Delineated Stream
Atwell Delineated Wetland
USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor
Northern Divide 345-kV Transmission Line Right-of-Way
Northern Divide 345-kV Transmission Line Project Route
Transmission Structure
Pulling Loctation

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



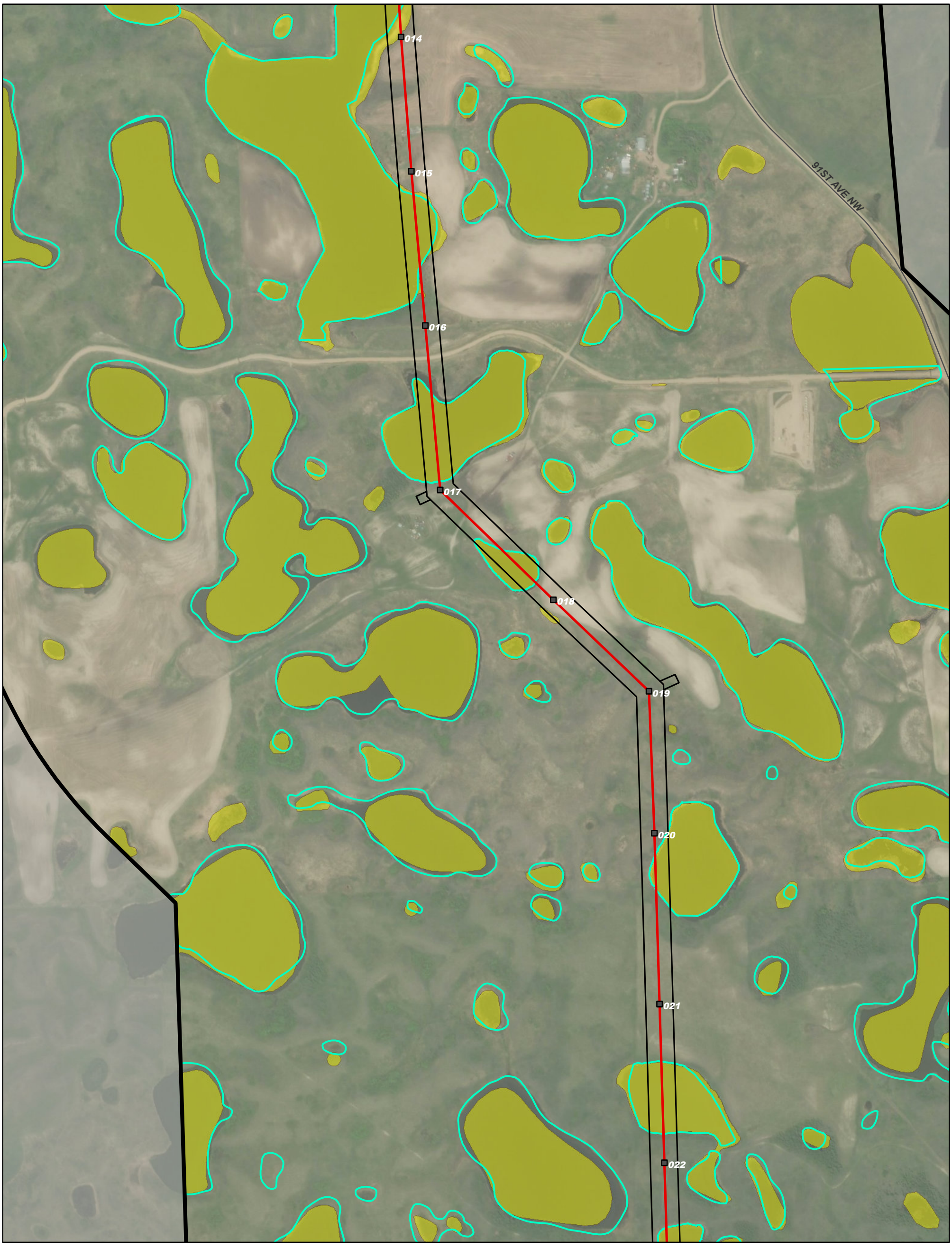


Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 6 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

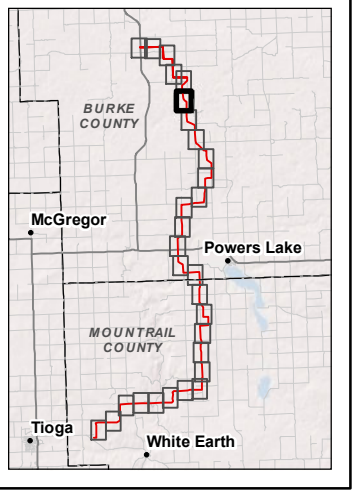
Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



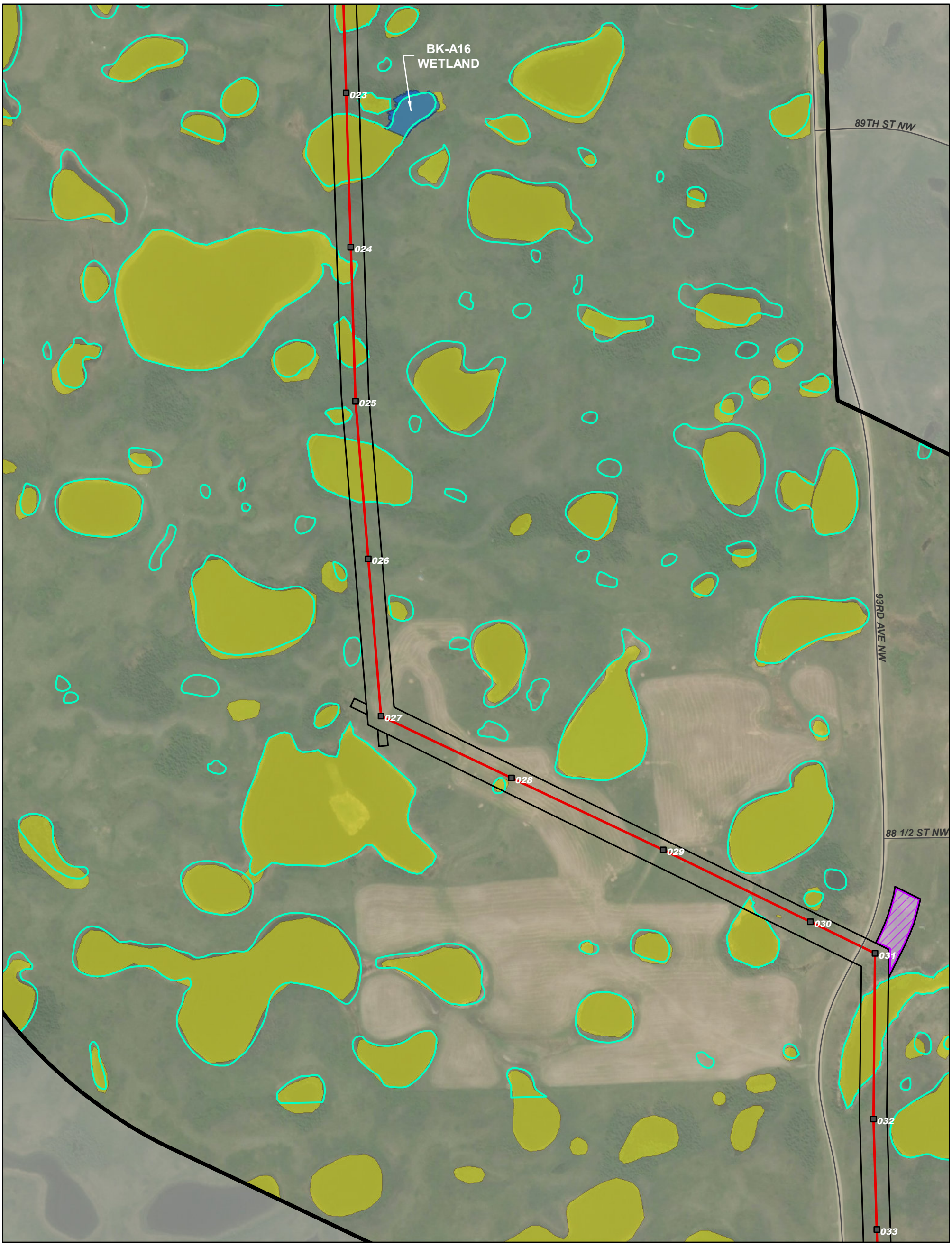


Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 7 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

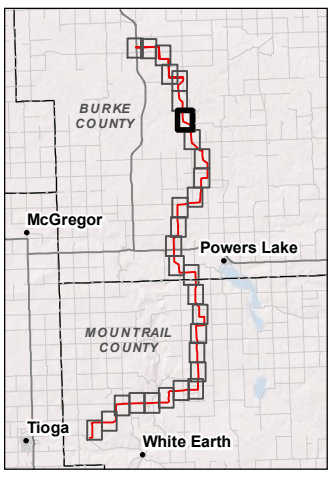
Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Pulling Loctation

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



033
034
035
036
037
BK-A13
WETLAND
038
93RD AVE NW
039
87TH ST NW
040
041
042
043
044

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 8 of 29

0 250 500 Feet

AECOM

Legend

- County Road
- County Boundary
- Existing Transmission Line

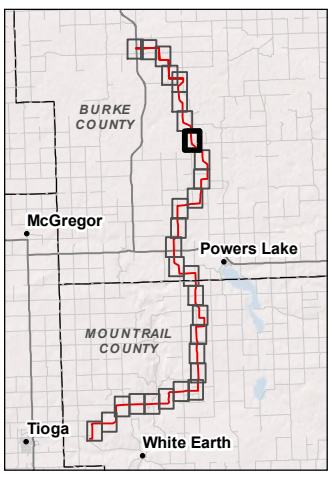
Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



044
045
046
047
048
049
050
051
052
053
054

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 9 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Boundary

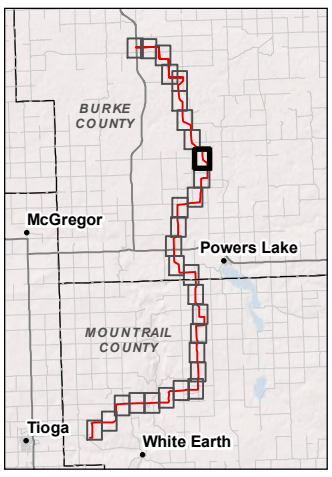
Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



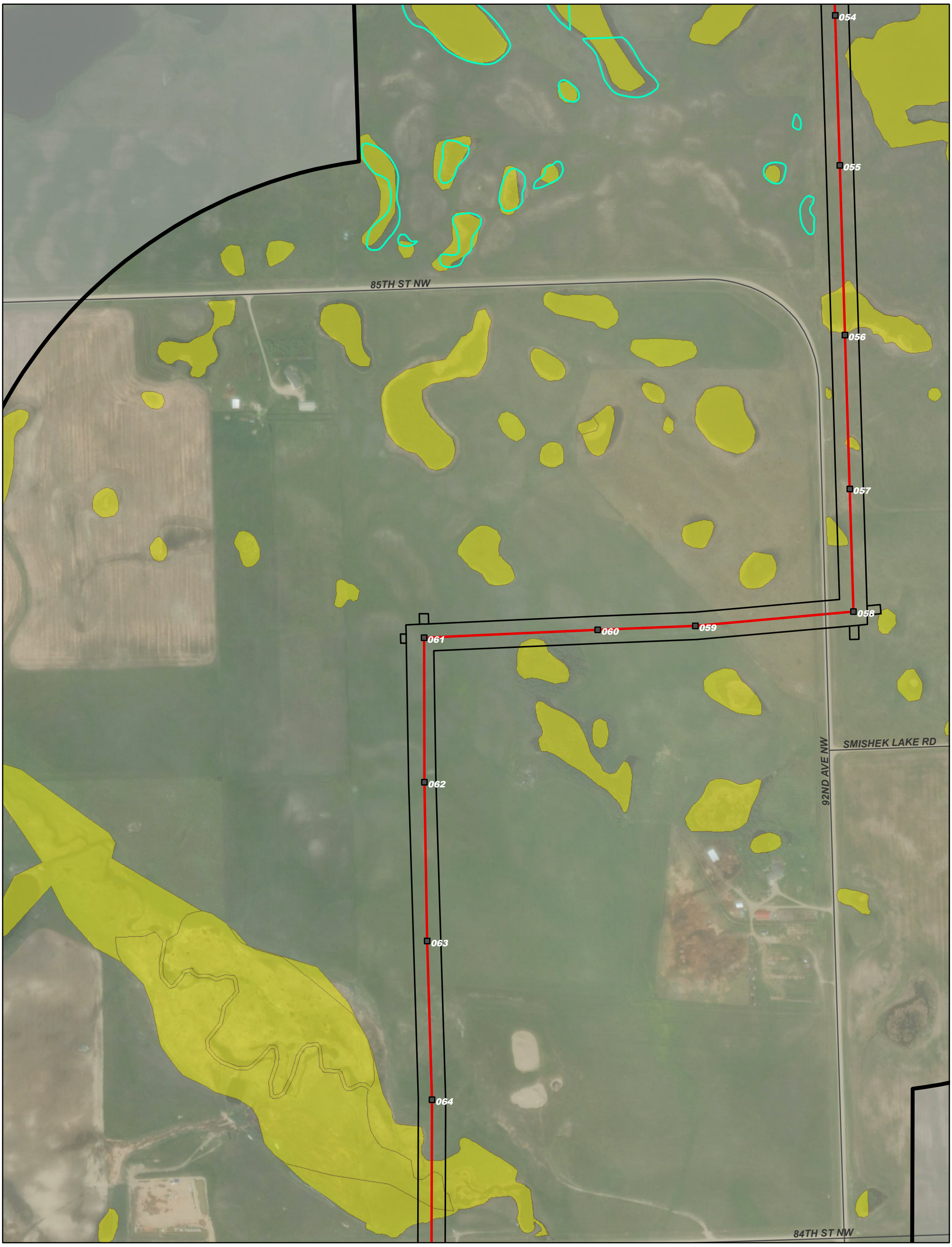


Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 10 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

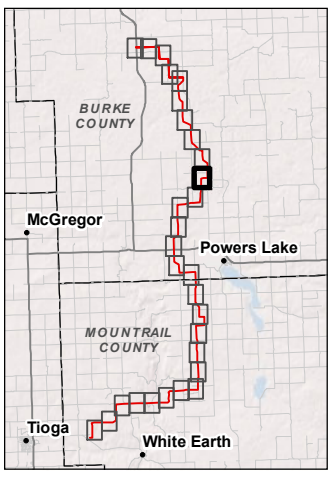
Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

Wetland delineations were focused around the Project ROW; not all wetlands/other waters were delineated within the Study Corridor.



84TH ST NW
BK-A12 WETLAND
065
BK-A10 WETLAND
066
BK-A11 WETLAND
93RD AVE NW
067
068
069
070
071
072
073
074
075
076
83RD ST NW
BK-A09 WETLAND

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 11 of 29

0 250 500 Feet

AECOM

Legend

- County Road
- County Boundary
- Existing Transmission Line

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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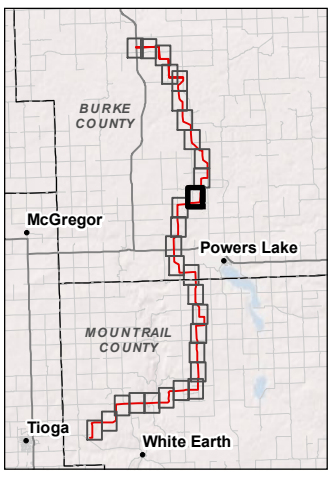

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 12 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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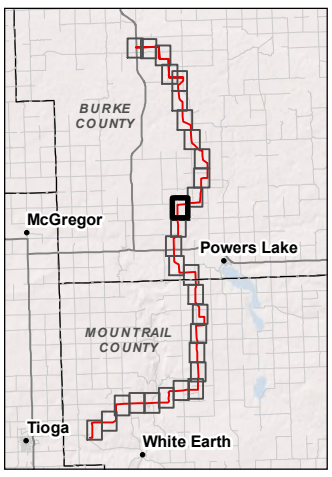

088
089
090
091
092
093
094
095
82ND ST NW
94TH AVE NW
81ST ST NW
BK-A08a
WETLAND
BK-A08b
WETLAND

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 13 of 29

0 250 500 Feet

AECOM

Legend

County Road
County Boundary

Wetlands

AECOM Delineated Wetland
AECOM Delineated Stream
Atwell Delineated Wetland
USFWS Wetland Easement

Site Plan

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Northern Divide 345-kV Transmission Line Right-of-Way
Northern Divide 345-kV Transmission Line Project Route
Transmission Structure

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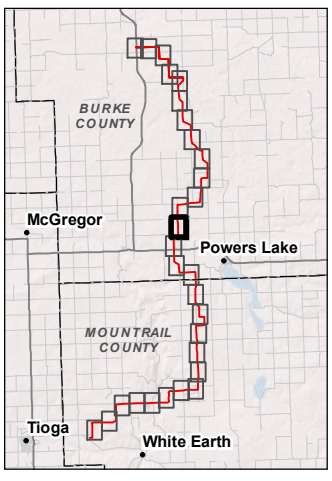

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 14 of 29

0 250 500 Feet

N W E S

AECOM

Legend

- County Road
- State/Federal Highway
- County Boundary

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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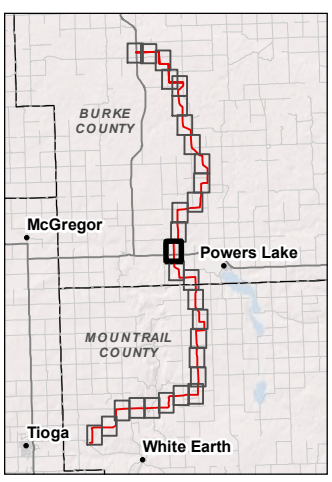

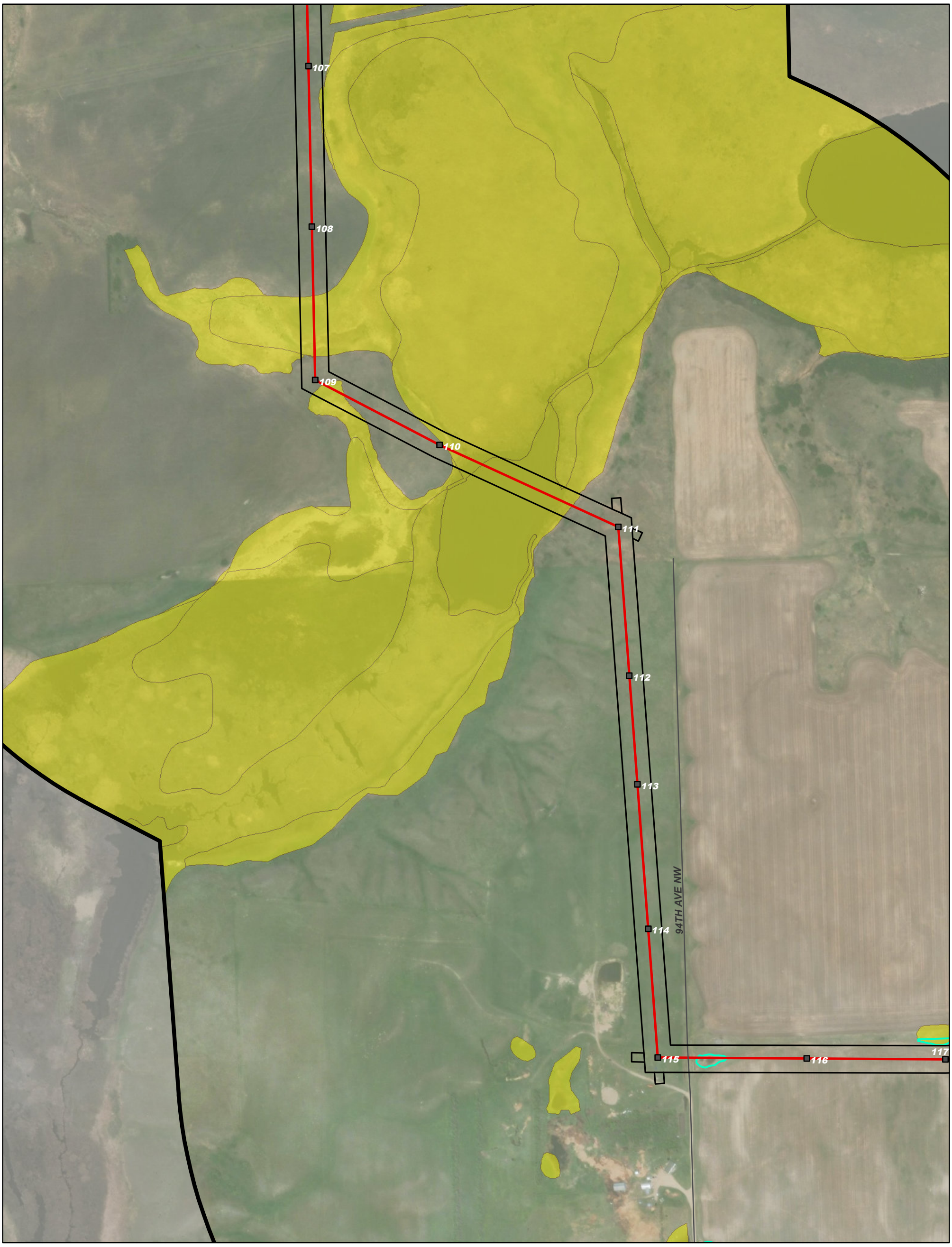

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 15 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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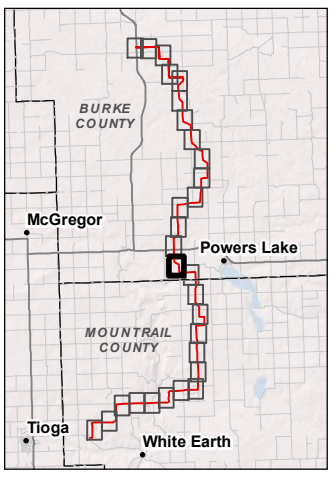

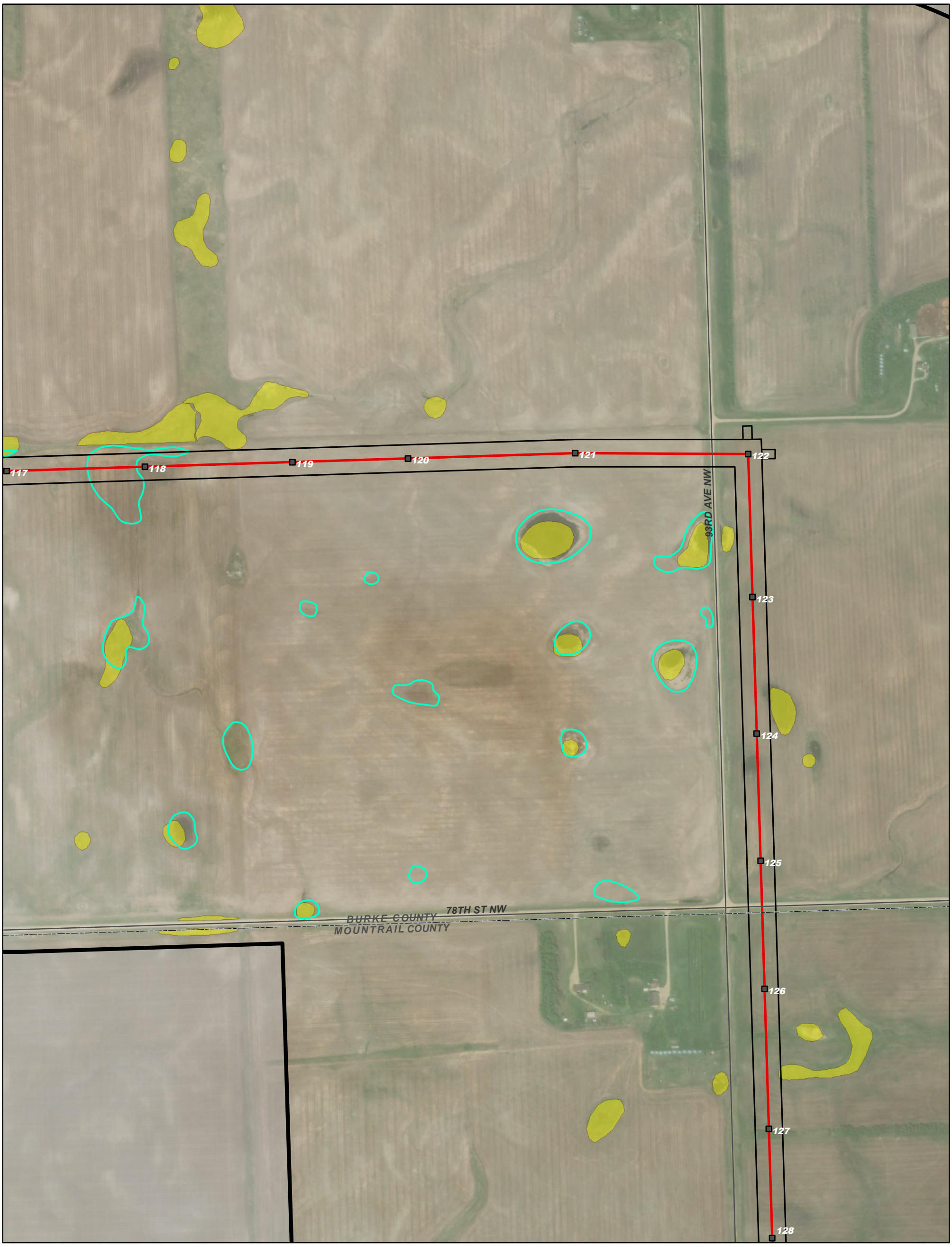

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 16 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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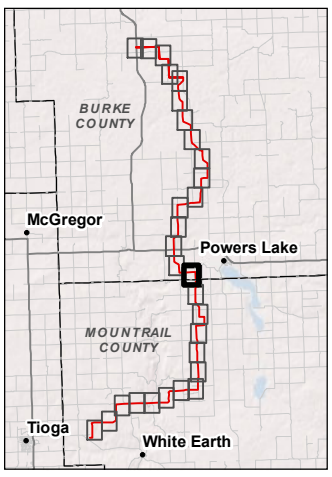

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 17 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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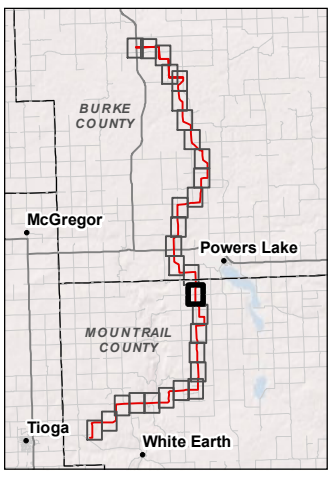

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 18 of 29

0 250 500 Feet

AECOM

Legend

- County Road
- County Boundary

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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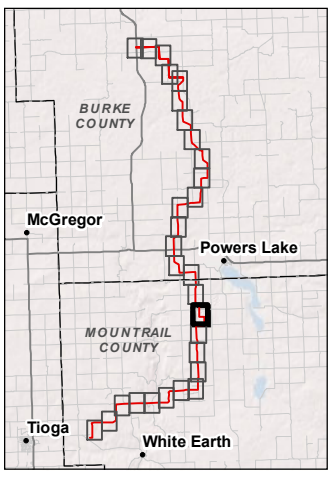

75TH ST NW
150
151
152
153
154
155
156
157
158
BK-A07
WETLAND
BK-A06
WETLAND
159
160
BK-A05
WETLAND
74TH ST NW
60A
93RD AVE NW
161

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 19 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

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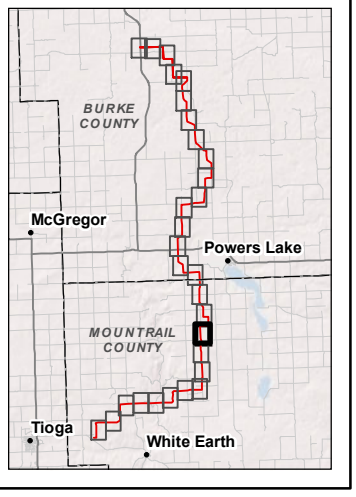

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 20 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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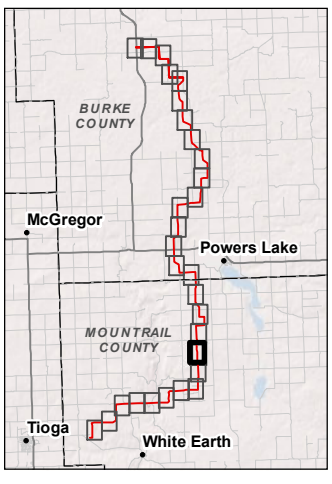

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 21 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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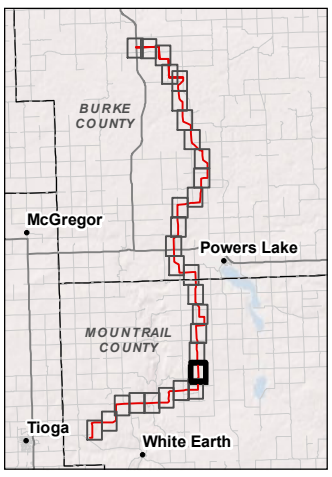

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 22 of 29

0 250 500 Feet

N W E S

AECOM

Legend

- County Road
- County Boundary

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
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- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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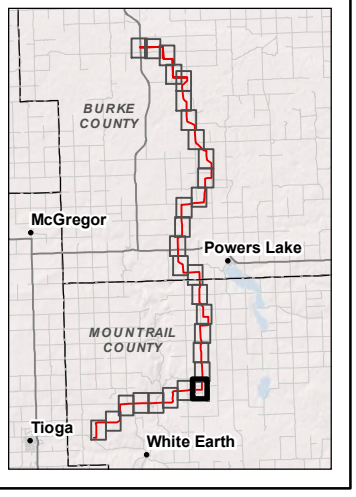

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 23 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

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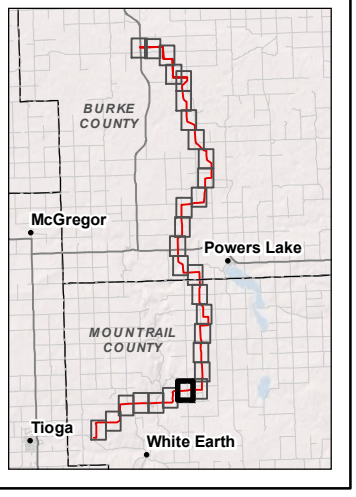

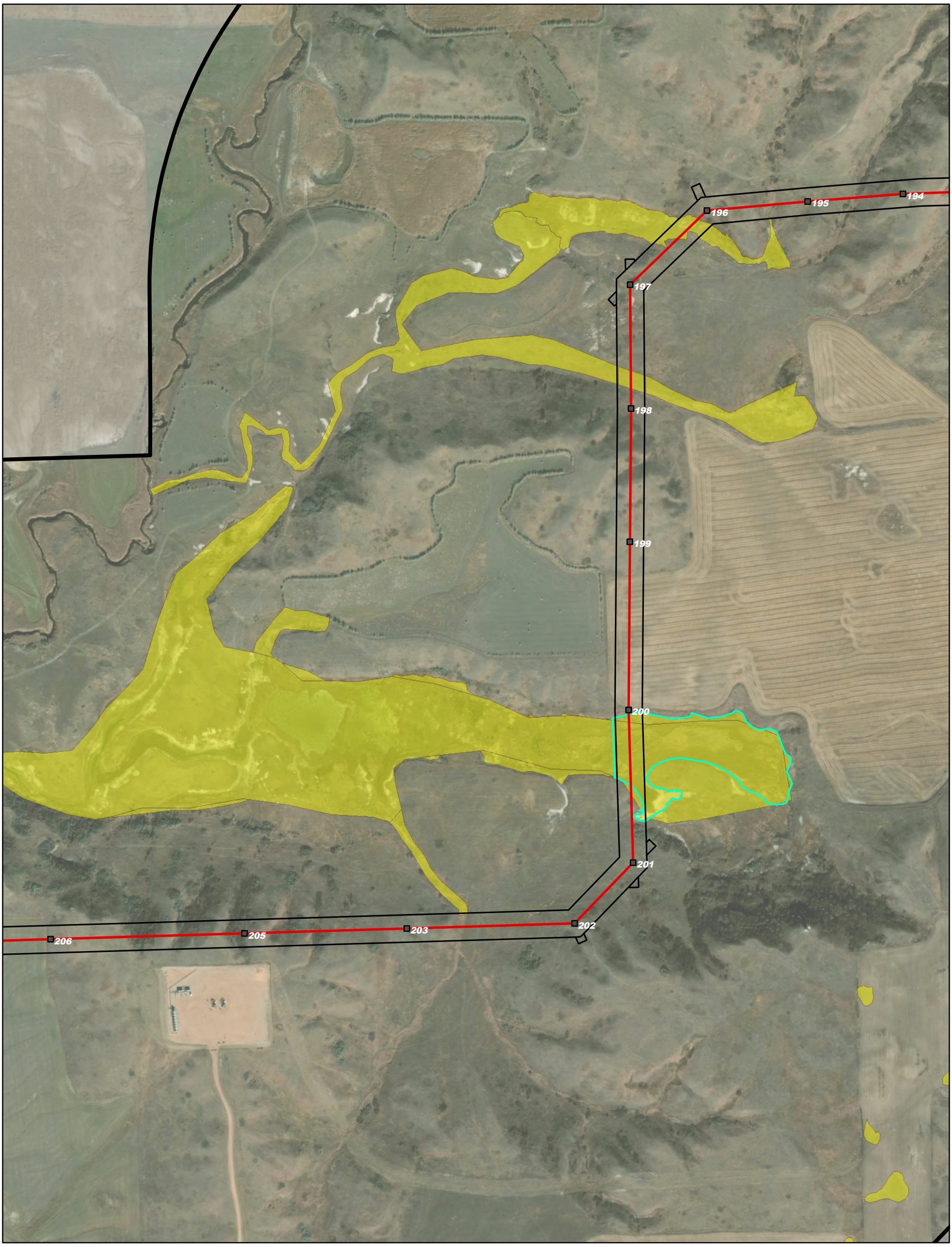

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 24 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Boundary

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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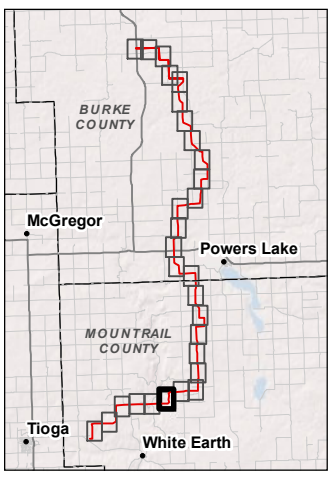

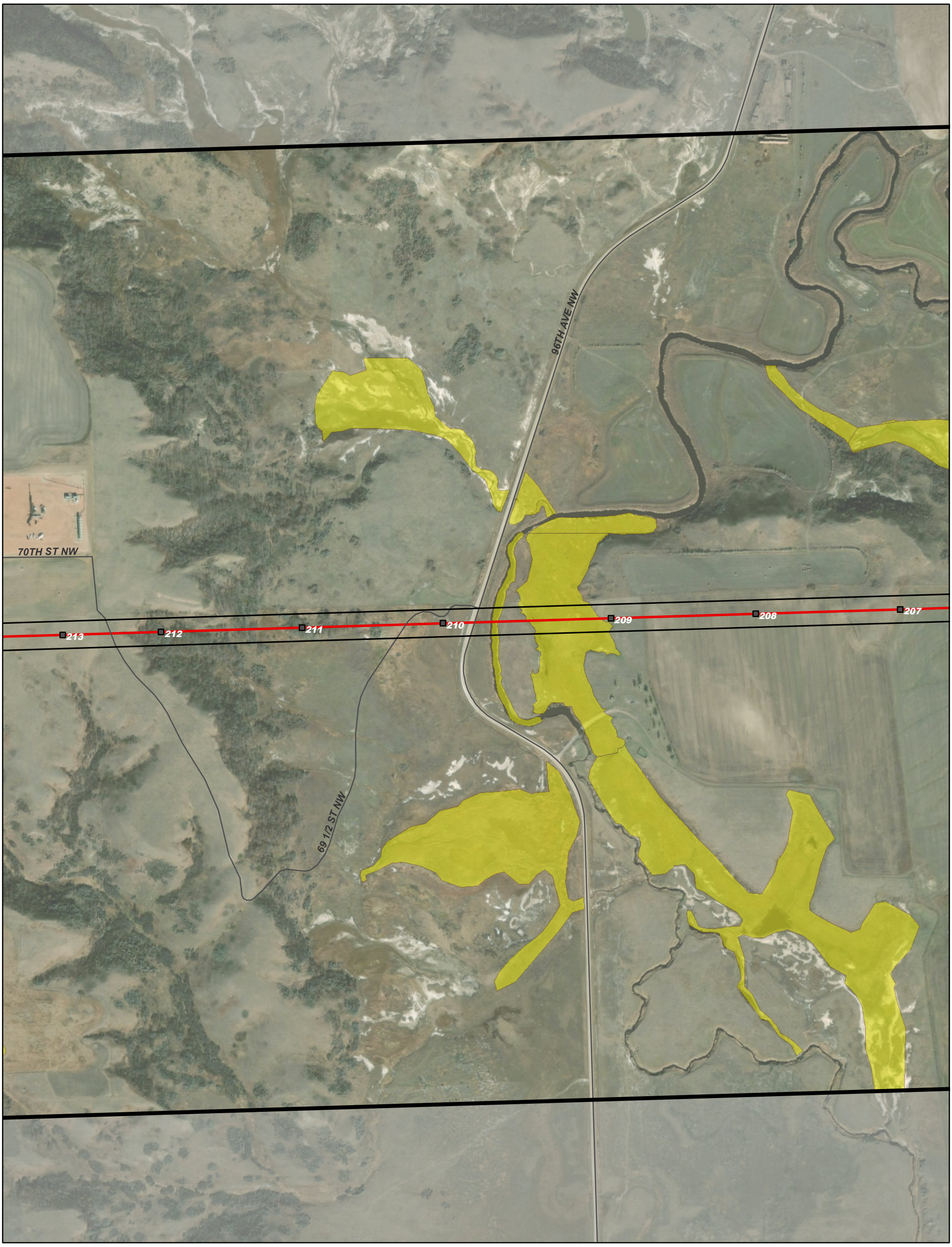

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 25 of 29

0 250 500 Feet

N W E S

AECOM

Legend

- County Road
- County Boundary

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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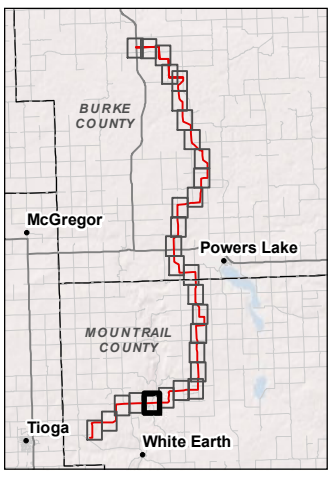

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 26 of 29

0 250 500 Feet

N W E S

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

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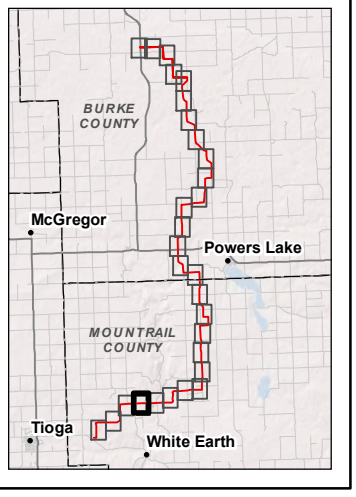

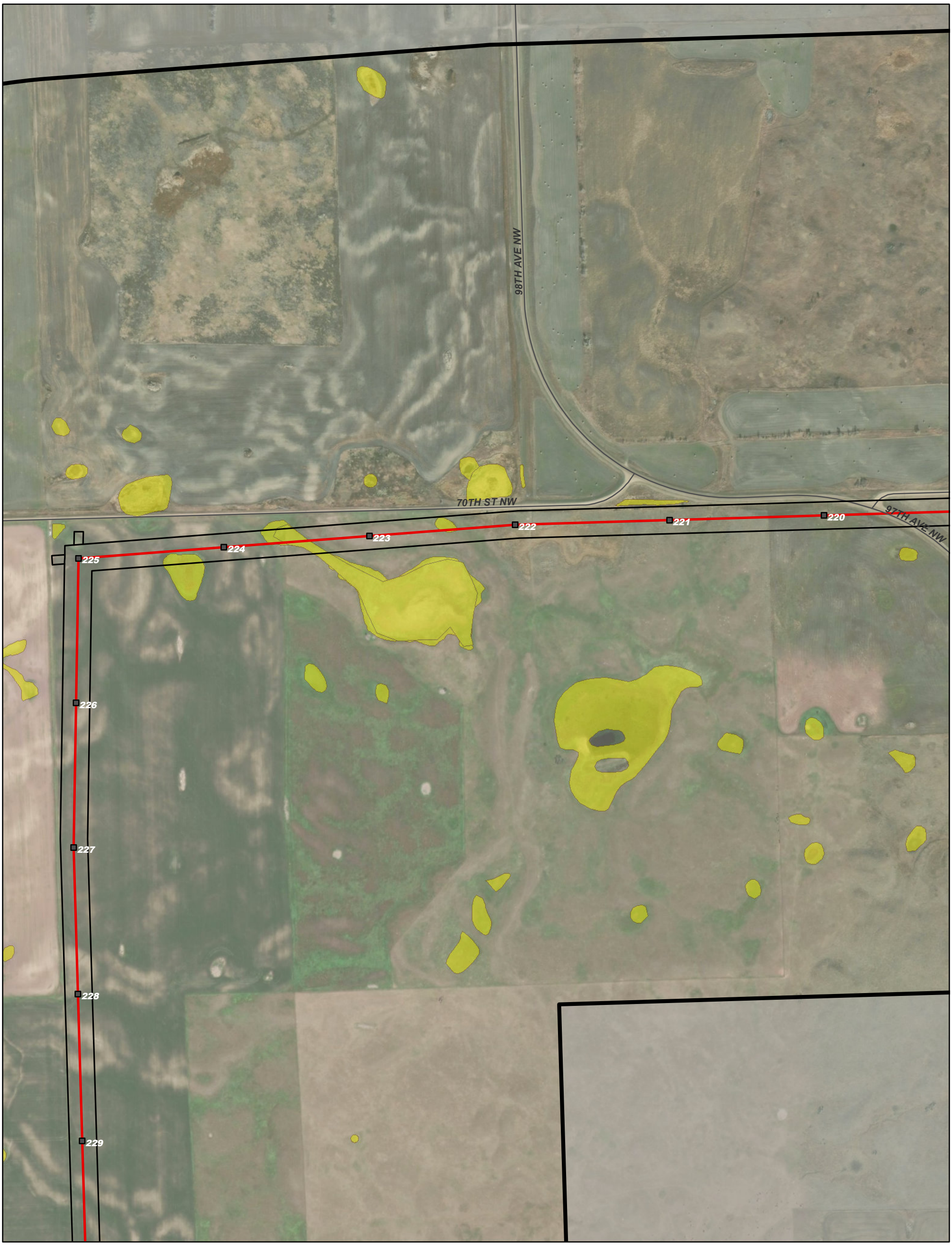

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 27 of 29

0 250 500 Feet

AECOM

Legend

County Road

County Boundary

Wetlands

AECOM Delineated Wetland

AECOM Delineated Stream

Atwell Delineated Wetland

USFWS Wetland Easement

Site Plan

Northern Divide 345-kV Transmission Line Study Corridor

Northern Divide 345-kV Transmission Line Right-of-Way

Northern Divide 345-kV Transmission Line Project Route

Transmission Structure

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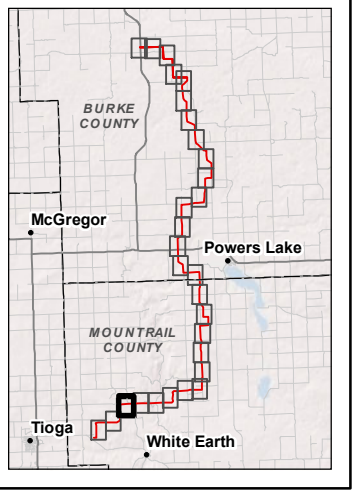

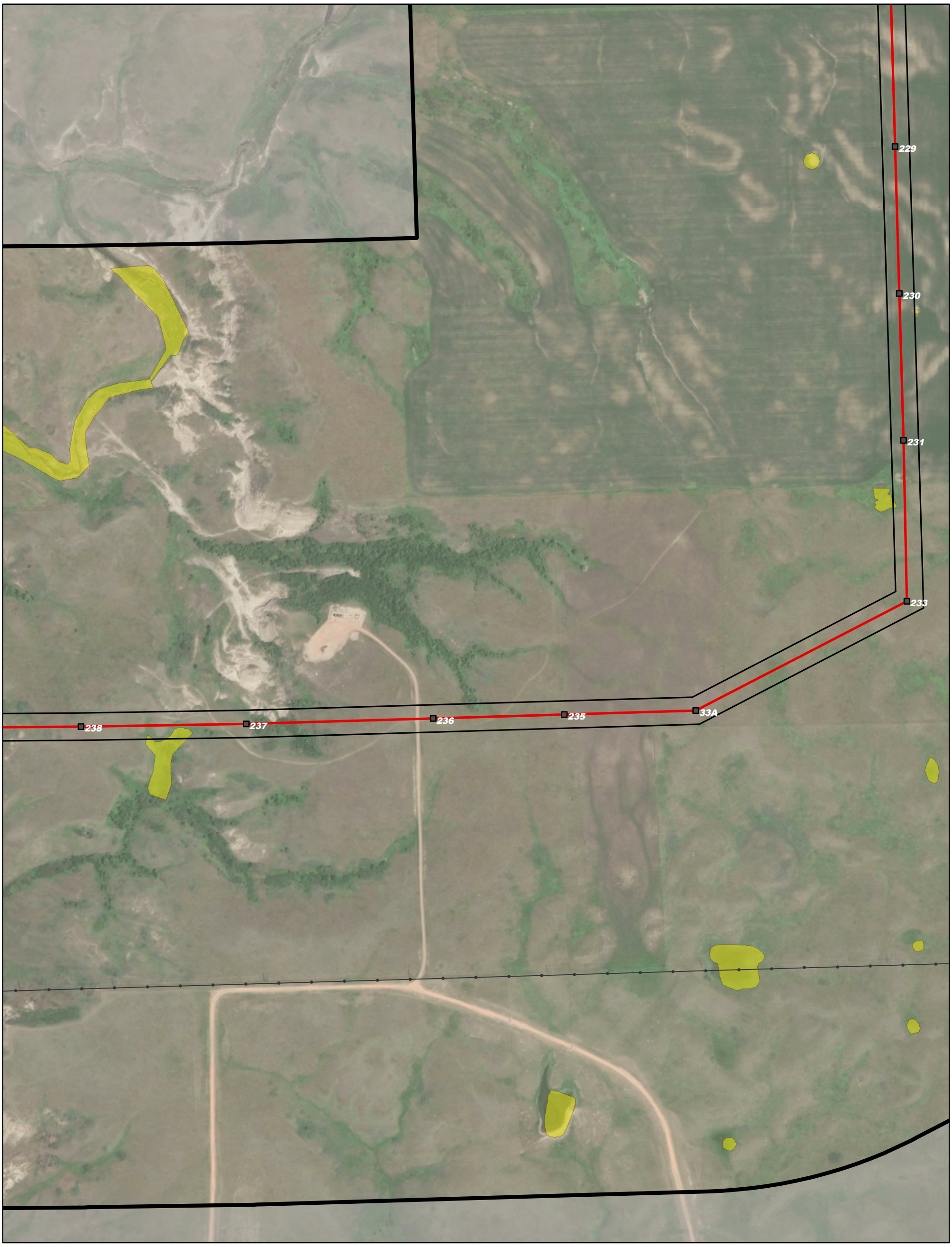

Figure 3-1
Delineated Wetlands
Northern Divide 345-kV Transmission Line Burke & Mountrail Counties, North Dakota

Map 28 of 29

0 250 500 Feet

N W E S

AECOM

Legend

- County Boundary
- Existing Transmission Line

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
- USFWS Wetland Easement

Site Plan

- Northern Divide 345-kV Transmission Line Study Corridor
- Northern Divide 345-kV Transmission Line Right-of-Way
- Northern Divide 345-kV Transmission Line Project Route
- Transmission Structure

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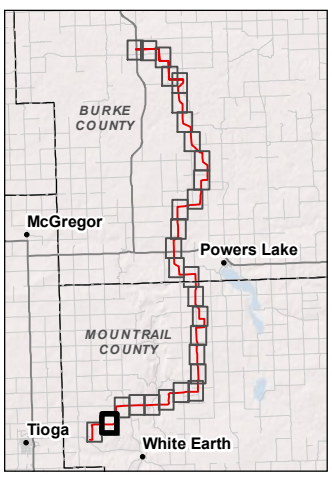

BK-A17-
WETLAND

BK-A01-
STREAM

242 241 40A 240 239

243

244

245

246

247

68TH ST NW

BK-A02-STREAM

TANDE
SUBSTAION

248

251 250 249

67TH ST NW

Figure 3-1
Delineated Wetlands
Northern Divide
345-kV Transmission Line
Burke & Mountrail Counties, North Dakota

Map 29 of 29

0 250 500 Feet

AECOM

N W E S

Legend

- County Road
- County Boundary
- Existing Transmission Line

Wetlands

- AECOM Delineated Wetland
- AECOM Delineated Stream
- Atwell Delineated Wetland
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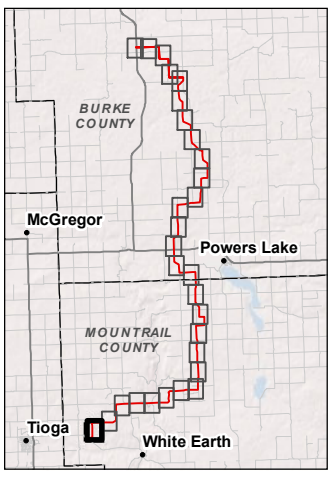

Appendix A
Atwell Wetland Determination & Delineation Report

WETLAND DETERMINATION & DELINEATION REPORT

for the

BURKE COUNTY TRANSMISSION LINE
BURKE AND MOUNTRAIL COUNTIES, NORTH DAKOTA

Prepared for

Burke Wind, LLC
700 Universe Boulevard MS JES/JB
Juno Beach, Florida 33408

Project Number: 16000947

February 4, 2019

22 PU-18-302 Filed 02/06/2019 Pages: 32
Wetland Determination & Delineation Report - Transmission Line
Burke Wind, LLC
Casey Furey, Crowley Fleck

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APPENDIX

A. Aquatic Resources Site Location Map
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Aquatic Resources Map

EXECUTIVE SUMMARY

Burke Wind, LLC (Burke Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER), is in the process of siting the proposed Burke County Transmission Line (Project) associated with the proposed Burke County Wind Energy Center. The Burke County Wind Energy Center has been delineated and is being permitted separately from the Project. Burke Wind contracted Atwell, LLC (Atwell) to conduct wetland determinations within the approximately 37-mile-long, by 1-mile-wide (approximately 23,315 acres) Project "1-Mile Study Area" and wetland delineations within the "Project Corridor" in Burke and Mountrail counties, North Dakota. The Project Corridor includes the 150-foot transmission line construction easement and 200-foot radial bump outs around turning structures. The 1-Mile Study Area is greater than the anticipated construction impact area to support the North Dakota Public Service Commission Route Permit and Certificate of Corridor Compatibility Application. The 1-Mile Study Area was analyzed to assist in Project design and routing to minimize potential impacts to sensitive natural features.

This report summarizes potential U.S. Army Corps of Engineers (USACE) jurisdictional wetlands and watercourses, which would be considered waters of the United States (WOUS) identified within the Project Corridor. The identification process for WOUS consisted of: 1) an offsite Aerial Desktop Review of the features within the 1-Mile Study Area, and 2) onsite WOUS delineations within the proposed Project Corridor. Atwell identified 1,105 wetlands and 39 watercourses within the 1-Mile Study Area as a result of offsite aerial desktop review. The WOUS delineation indicated the presence of approximately 9.03 acres of potentially jurisdictional wetlands and 510 linear feet of intermittent and perennial streams within the Project Corridor.

Burke Wind has a standard approach of avoiding and minimizing impacts to WOUS to the maximum extent practicable. WOUS mapped and examined herein will allow Burke County Wind to site the proposed Project in a manner that would avoid and minimize potential impacts to WOUS. The Burke County Transmission Line will be designed so that it does not exceed Nationwide Permit thresholds and avoids WOUS to the extent feasible. The planned activities will not impact federal or state regulated or protected wetlands, watercourses, floodplains, or open water areas. WOUS are regulated by the USACE and impacts to these features will be avoided by this Project. Based on the results of this wetland delineation, Atwell believes that WOUS within the Project can be avoided through proper structure placement within the Project Corridor.

1.0 INTRODUCTION

Burke Wind, LLC (Burke Wind), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER), is in the process of siting the proposed Burke County Transmission Line (Project). The proposed Project consists of a new, approximately 37-mile-long, 345-kilovolt (kV) overhead transmission line. The Project is associated with the proposed Burke County Wind Energy Center and will deliver power from the Burke Wind Energy Center to the electrical grid by connecting to the existing Tande Substation. The Burke County Wind Energy Center has been delineated and is being permitted separately from the.

Burke Wind contracted Atwell, LLC (Atwell) to conduct wetland determinations within the approximately 37-mile-long, by 1-mile-wide (approximately 23,315 acres) Project "1-Mile Study Area" and wetland delineations within the "Project Corridor" in Burke and Mountrail Counties, North Dakota. The Project Corridor includes the 150-foot transmission line construction easement and 200-foot radial bump outs around turning structures. The 1-Mile Study Area is greater than the anticipated construction impact area to support the North Dakota Public Service Commission Route Permit and Certificate of Corridor Compatibility Application. The 1-Mile Study Area was analyzed to assist in project design and routing to minimize potential impacts to sensitive natural features.

The goal of the wetland determination and delineations was to identify potential U.S. Army Corps of Engineers (USACE) jurisdictional wetlands and watercourses, which would be considered waters of the United States (WOUS) within the 1-Mile Study Area and the Project Corridor. The USACE regulates the discharge of dredged or fill material into all WOUS, which includes navigable waters, perennial and intermittent tributaries (watercourses), and wetlands (jurisdictional wetlands) that have a continuous surface connection or unbroken hydrological connection to navigable waters or watercourses. Wetlands and watercourses mapped and examined herein will allow Burke Wind to site the proposed Project in a manner that will avoid impacting WOUS, including wetlands and watercourses, to the maximum extent practicable. All potentially jurisdictional wetlands and watercourses are assumed to be WOUS. Wetlands that lack a continuous surface connection or unbroken hydrological connection to WOUS are identified as likely isolated, but the final jurisdictional determination rests with the USACE.

2.0 SITE DESCRIPTION

The 1-Mile Study Area is located within Burke and Mountrail counties, North Dakota. The 1-Mile Study Area is approximately 1.5 miles north of White Earth, 14 miles southwest of Bowbells, 20 miles west of Kenmare, and 36 miles northeast of Williston, North Dakota. The 1-Mile Study Area and surrounding vicinities are sparsely populated with land-use primarily dedicated to agricultural activities (cultivated crops, hayfields, and pasturelands). The northern portion of the 1-Mile Study Area is located within an extensive prairie pothole wetland system that begins to diminish south of the White Earth River and Powers Lake. Forested habitats and

riparian corridors are limited and are concentrated along the streams and rivers. Refer to **Appendix A –** *Aquatic Resources Site Location Map* for site location.

2.1 Ecoregions

The Project is largely located within the Northern Dark Brown Prairie section of the Northern Glaciated Plains ecoregion. A smaller portion of the Project is located within the Northern Missouri Coteau section of the Northwestern Glaciated Plains ecoregion.

2.1.1 Northern Dark Brown Prairie Ecoregion

This region was carved by receding glaciers leaving behind glacial till and outwash within a relatively level to gently rolling landscape. The climate allows for mixed-grass prairies composed of tall and shortgrass species. This ecoregion generally has less precipitation and less organic matter in the soil than ecoregions to the east, which results in lower biomass production (Bryce et al. 1996).

2.1.2 Northern Missouri Coteau Ecoregion

This region was the westernmost extent of glaciation, which resulted in accumulations of glacial till within a marked by significant micotopography. The microtopography has resulted in large concentrations of prairie potholes. Wetlands typically dry out earlier in the summer than ecoregions located to the south and east. This region is transitional between the northern boreal climate and the western arid climate (Bryce et al. 1996).

3.0 METHODS

3.1 Offsite Aerial Desktop Review

An offsite aerial desktop review was conducted to identify WOUS within the entire 1-Mile Study Area. The aerial desktop review involved a Geographic Information System (GIS) interpretation of landscape position, vegetative cover, hydrology signatures in aerial photographs (current and historic), U.S. Geological Survey (USGS) topographic maps, and the following geospatial datasets: National Wetland Inventory (NWI), National Hydrography Dataset (NHD), Soil Survey Geographic Database (SSURGO), Hydrologic Unit Code 12 (HUC-12) subwatershed boundaries, and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). The map produced from this effort depicting potential WOUS within the 1-Mile Study Area is located in the *Aquatic Resources Map* located in **Appendix A**.

3.1.1 Aerial Photography

Various online resources were accessed to review current and historic aerial imagery. Aerial photography datasets from the USGS (1995); National Aeronautics and Space Administration (NASA; 1995); and the USDA Farm Services Agency (2003, 2005, 2006, 2009, 2010, 2013, and 2016) were interpreted to identify potential WOUS and other significant natural features within the 1-Mile Study Area. Visible landscape types observed included agricultural fields, undeveloped grassland, pasture/rangeland, wetlands, and watercourses.

3.1.2 USGS Topographic Map

The USGS 7.5 Minute Topographic Quadrangles indicate that elevations within the 1-Mile Study Area range between approximately 2,116 and 2,493 feet above mean sea level (amsl). The 1-Mile Study Area generally slopes from a primarily northwest to southeast direction. The topographic maps depict numerous buildings, structures, and roads within the 1-Mile Study Area. Water courses, including the White Earth River, are also depicted within the 1-Mile Study Area

3.1.3 National Wetland Inventory (NWI)

Atwell reviewed NWI maps to determine the likely presence, location, size, and type of wetlands that may be located within the 1-Mile Study Area. The U.S. Fish and Wildlife Service (USFWS) maintains and generates NWI maps through aerial photograph interpretation (USFWS 2018). Atwell generally notes that NWI maps may not accurately depict the extent or existence of wetland systems in a specific area, nor do the maps always correctly identify the wetlands present. NWI maps were supplemented with Atwell's aerial interpretation with USFWS NWI features used for preliminary analysis only.

3.1.4 National Hydrology Dataset (NHD)

The NHD is a digital dataset that contains features such as lakes, ponds, streams, rivers, canals, dams and stream gages. The data provided is designed for use in general mapping and in the analysis of surface water systems. NHD flowlines are important features in the NHD, as they contain flow direction and form a network of watercourses that share a common drainage point. Atwell relied predominantly on NHD features to determine a significant nexus to a potential WOUS.

3.1.5 U.S. Department of Agriculture – National Cooperative Soil Survey Map

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) for Burke and Mountrail Counties were reviewed to determine the extent of hydric soils within the 1-Mile Study Area. Soil map units are made up of consociations, complexes, associations, or undifferentiated groups; these mapping units may be entirely hydric, entirely non-hydric, or partially hydric. Hydric soils are conducive to the growth and regeneration of hydrophytic (i.e., wetland) vegetation because of their tendency to remain saturated for extended periods of time (NRCS 2018).

3.1.6 Hydrologic Unit Code 12 (HUC-12) Dataset

Watershed boundaries define the aerial extent of surface water drainage to a particular location. HUC-12 datasets identify boundaries to the subwatershed level, which typically ranges from 10,000 to 40,000 acres in size. Atwell evaluated whether wetland features drain/flow to a potential WOUS or if they drain/flow to a glaciated lake at a low area on the regional landscape.

All seven HUC-12 subwatersheds located within the 1-Mile Study Area (Smishek Lake, Paradise Meadows, Power's Lake, Big Butte, Cottonwood Lake, Beauty Valley, Tioga Municipal Airport)

contain potentially jurisdictional waters. Numerous unnamed tributaries are located within the aforementioned HUC-12 subwatersheds and generally flow in a south-southwest direction into White Earth Creek (relatively permanent water [RPW]), which is located within the 1-Mile Study Area approximately 1.75 miles west of the City of Powers Lake. Multiple wetlands within these HUC-12 subwatersheds are potentially jurisdictional because of potential hydrologic connectivity to WOUS.

3.1.7 Floodplain Map

FEMA FIRMs (Flood Insurance Rate Maps) are maps that show floodplain areas along rivers and their tributaries. The maps record the following data: 100-year floodplains (1% chance of annual flooding) and 500-year floodplains (0.2% annual chance of flooding), the height of the base flood elevation, and the risk to premium areas developed across a floodplain. A review of FEMA FIRM (FEMA 2017) floodplain data was conducted to determine the presence, extent, location, and zone of floodplains which may be located within the 1-Mile Study Area.

3.2 Onsite Wetland & Watercourse Delineation

3.2.1 Onsite Wetland Delineation

Onsite wetland delineations were conducted within the proposed Project Corridor dated January 16, 2019. Potentially jurisdictional wetlands were delineated utilizing methods prescribed by the 1987 USACE Wetland Delineation Manual (Environmental Laboratory 1987) and the Great Plains Regional Supplement (Version 2.0; USACE 2010). The determination of wetland presence depends on three inter-related parameters: 1) presence of hydrophytic vegetation; 2) presence of hydric soils; and 3) presence of wetland hydrology. Onsite wetland delineation boundaries were recorded using a Trimble® Geo 7X handheld GPS unit, which provides a spatial error of less than one meter (with overall accuracy being within one [1] meter). Wetland data points were mapped with the GPS unit within each wetland area identified, along with corresponding upland data points outside the wetland boundary. USACE wetland determination data forms were completed for each wetland and upland data point. Wetland boundaries and data points are depicted on the *Aquatic Resource Mapbook* included in **Appendix A**.

3.2.2 Onsite Watercourse Assessment

Potentially jurisdictional watercourses were identified and recorded based on the presence of stream morphological characteristics such as a defined Ordinary High Water Mark, bed, banks, and evidence of continued flow or occurrence of water. Any potentially jurisdictional watercourses identified within the Project Corridor are depicted on the *Aquatic Resource Mapbook* included in **Appendix A**.

4.0 RESULTS, FINDINGS, AND DISCUSSION

Atwell identified 1,105 wetlands and 39 watercourses within the 1-Mile Study Area as a result of offsite aerial desktop review. Wetlands outside of the Project Corridor, but within the 1-Mile Study Area, were identified in the aerial desktop review but were not classified as potentially jurisdictional or likely isolated. This area was analyzed to assist in project design and routing to minimize potential impacts to sensitive natural features, so no on-site delineations were warranted.

Atwell conducted onsite wetland and watercourse determinations and delineations within the Project Corridor from May 17 – August 9, 2018. Atwell biologists identified approximately 9.03 acres of potentially jurisdictional wetlands (Table 1) and 510 linear feet of intermittent and perennial streams (Table 2) within the Project Corridor. Additionally, 42.79 acres of isolated wetlands were identified within the Project Corridor, and would likely not be considered WOUS. A map depicting potentially jurisdictional wetlands and watercourses is located in the *Aquatic Resources Map* within **Appendix A**. Seven (7) potentially jurisdictional wetlands were identified within the Project Corridor.

Wetland 1
Wetland 1 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by spikerush (*Eleocharis* sp.) and Fox-tail Barley (*Hordeum jubatum*). Indicators of wetland hydrology include saturation (A3), hydrogen sulfide odor (C1), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 2
Wetland 2 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by spikerush (*Eleocharis* sp.). Indicators of wetland hydrology include surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 3
Wetland 3 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by Water Knotweed (*Polygonum amphibium*). Indicators of wetland hydrology include surface water (A1), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 4
Wetland 4 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by Reed Canary Grass (*Phalaris arundinacea*). Indicators of wetland hydrology include inundation visible on aerial imagery (B7), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 5

Wetland 5 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by Reed Canary Grass (*Phalaris arundinacea*). Indicators of wetland hydrology include surface water (A1), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 6

Wetland 6 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by cattails (*Typha* spp.) and Softstem bulrush (*Schoenoplectus tabernaemontani*). Indicators of wetland hydrology include surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2), and the FAC-neutral test (D5).

Wetland 7

Wetland 7 is a presumed jurisdictional PEMC wetland that receives surface water runoff from the surrounding area. The wetland vegetation is dominated by spikerush (*Eleocharis* sp.) and Seaside Arrowgrass (*Triglochin maritima*). Indicators of wetland hydrology include surface water (A1), high water table (A2), saturation (A3), hydrogen sulfide odor (C1), presence of reduced iron, geomorphic position (D2), and the FAC-neutral test (D5).

Table 1. The wetland delineation for the Project Corridor was conducted from May 17, 2018 through August 9, 2018. Seven (7) potentially jurisdictional wetlands were identified within the Project Corridor.

Wetland #	PLSS Location	Latitude (Dec. Deg.)	Longitude (Dec. Deg.)	Cowardin Classification	Area of delineated wetlands within Project Corridor (acres)
1	Sec. 7, T157N, R93W	48.43331006	-102.73340047	PEMC	1.43
2	Sec. 7, T157N, R93W	48.44076136	-102.73197103	PEMC	0.80
3	Sec. 34, T160N, R93W	48.63377354	-102.67816876	PEMC	1.25
4	Sec. 17, T159N, R93W	48.59741109	-102.72155988	PEMC	0.44
5	Sec. 20, T159N, R93W	48.57758663	-102.72013396	PEMC	0.20
6	Sec. 29, T159N, R93W	48.56180470	-102.71455165	PEMC	3.51
7	Sec. 7, T157N, R93W	48.43009937	-102.75616909	PEMC	1.40
				Total	**9.03**

Table 2. The watercourse assessment for the Project Corridor was conducted from May 17, 2018 through June 8, 2018. Three (3) watercourses were identified within the Project Corridor.

Watercourse #	PLSS Location	Latitude (Dec. Deg.)	Longitude (Dec. Deg.)	Local Waterway Name	Watercourse Size within Project Corridor (acres)	Watercourse Length within Project Corridor (feet)
1	Sec. 13, T157N, R94W	48.400281	-102.844174	Tributary to Paulsen Creek	0.08	162
2	Sec. 21, T157N, R94W	48.412624	-102.834882	Tributary to Paulsen Creek	0.12	195
3	Sec. 29, T157N, R94W	48.4302586	-102.757427	White Earth River	0.14	153
				Total	**0.34**	**510**

5.0 Conclusion

Burke Wind has a standard approach of avoiding and minimizing impacts to WOUS to the maximum extent practicable.

Atwell biologists identified approximately 9.03 acres of potential WOUS within the Project Corridor. The transmission line will not impact WOUS as all wetlands and watercourses will be spanned by the transmission line and no new structures will be placed in WOUS. There are no identified WOUS impacts within the footprint of the substation, Operations and Maintenance Office, or the batch plant associated with the Project. Based on the results of this wetland delineation, Atwell believes that WOUS within the Project can be avoided through proper structure placement within the Project Corridor.

The avoidance of WOUS impacts (permanent or temporary) would eliminate the need for Nationwide Permit (NWP) 12 permitting at these locations. However, if WOUS impacts are proposed for the Project as a result of future project design changes, permanent impacts to WOUS will be kept under 1/2 (0.5)-acre in accordance with NWP 12 permit conditions. Pre-construction Notification (PCN) to the USACE district engineer will be required if greater than 1/10-acre of WOUS will be permanently lost. Permanent WOUS impacts will be kept under 1/10 (0.1)-acre; therefore, a PCN will not be required. Temporary impacts have no specific acreage limit but must be restored to pre-construction contours within 12 months of commencing the temporary impacts' construction. All temporary impacts will be restored in accordance with the NWP 12 permit conditions.

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COMMON WETLAND DEFINITIONS

Atypical wetland: Areas in which one or more parameters (vegetation, soil and/or hydrology) have been sufficiently altered by human activities or natural events to preclude the presence of wetland indicators of the parameter.

Emergent Wetland: Vegetative classification of a wetland system based on the dominant vegetation, consisting of rooted herbaceous plant species that have parts extending above a water surface.

100-year flood: A flood with a magnitude that has a 1% chance of occurring or being exceeded in any given year.

Floodplain: The area of land adjoining a river or steam that will be inundated by a 100-year flood.

Floodway: The channel of a river or stream and the portions of the floodplain adjoining the channel that is reasonably required to carry and discharge a 100-year flood.

Inland lake or stream: "…any natural or artificial lake, pond or impoundment which has a surface area of 5 acres or greater; a river, stream or creek which may or may not be serving as a drain; any body of water which has definite banks, a bed and visible evidence of a continued flow or continued occurrence of water…" as defined by Part 301, Inland Lakes and Streams, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Hydric soil: Soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (1991 National Technical Committee on Hydric Soils definition).

Hydrophytes: Plant species that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; plants typically found in wet habitats.

Scrub-Shrub Wetland: Vegetative classification of a wetland system based on the dominant vegetation consisting of woody plants less than 3 inches in diameter but greater than 3 feet in height.

Typical situation: That, which normally, usually, or commonly occurs.

Vernal Pool: Shallow, intermittently-flooded forested wetland, generally dry for most of the summer and fall.

Wooded (Forested) Wetland: Vegetative classification of a wetland system based on the dominant vegetation consisting of woody plants 3 inches in diameter or greater regardless of height.

Wetland: "…land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh…" as defined by Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451.

Wetland hydrology: Hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season.

Wetland Indicator Status:

OBL: Obligate wetland plant that occurs almost always, 99% of the time, in wetlands under natural conditions, but which rarely occur in non-wetlands.

FACW: Facultative wetland plant that occurs usually, 67% to 99% of the time, in wetlands, but also occurs 1% to 33% of the time in non-wetlands.

FAC: Facultative plant that occurs in both wetlands and non-wetlands 33% to 67% of the time.

FACU: Plant that occurs sometimes, 1% to 33% of the time, in wetlands but occurs more often, 67% to 99% of the time, in non-wetlands.

APPENDIX A

Aquatic Resources Site Location Map

Aquatic Resources Index Map

Aquatic Resources Map

Burke Wind Transmission Line

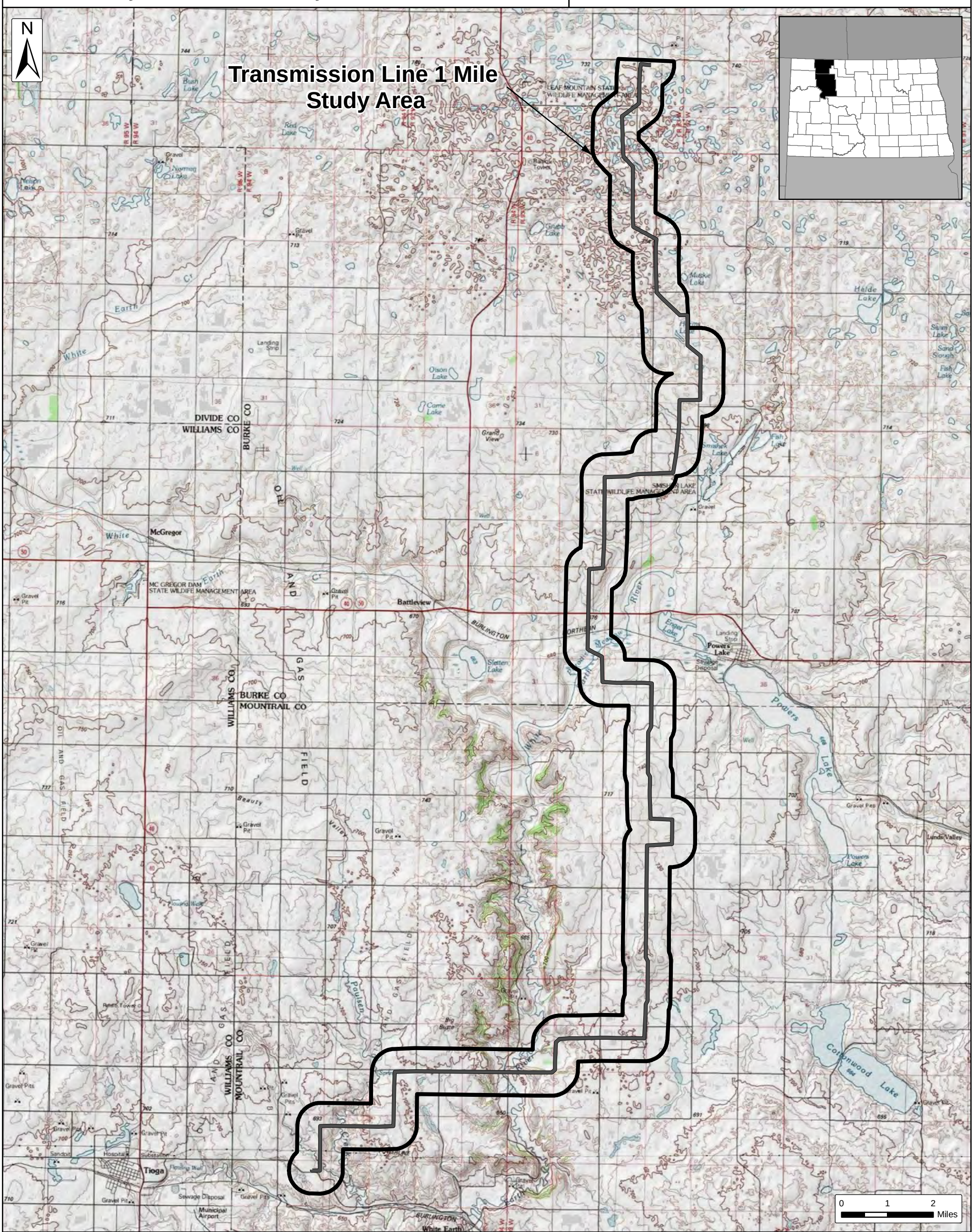
Aquatic Resources Site Location Map

Burke County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
2/3/2019

Atwell, LLC Project:
16000947



Transmission Line

Transmission Line 1 Mile Study Area

SOURCE: USGS TOPOGRAPHIC QUADS

ATWELL

The information contained on this map is proprietary and confidential. The use or disclosure of this information by you to third parties is prohibited by law and may give rise to civil or criminal liability.

Burke Wind Transmission Line

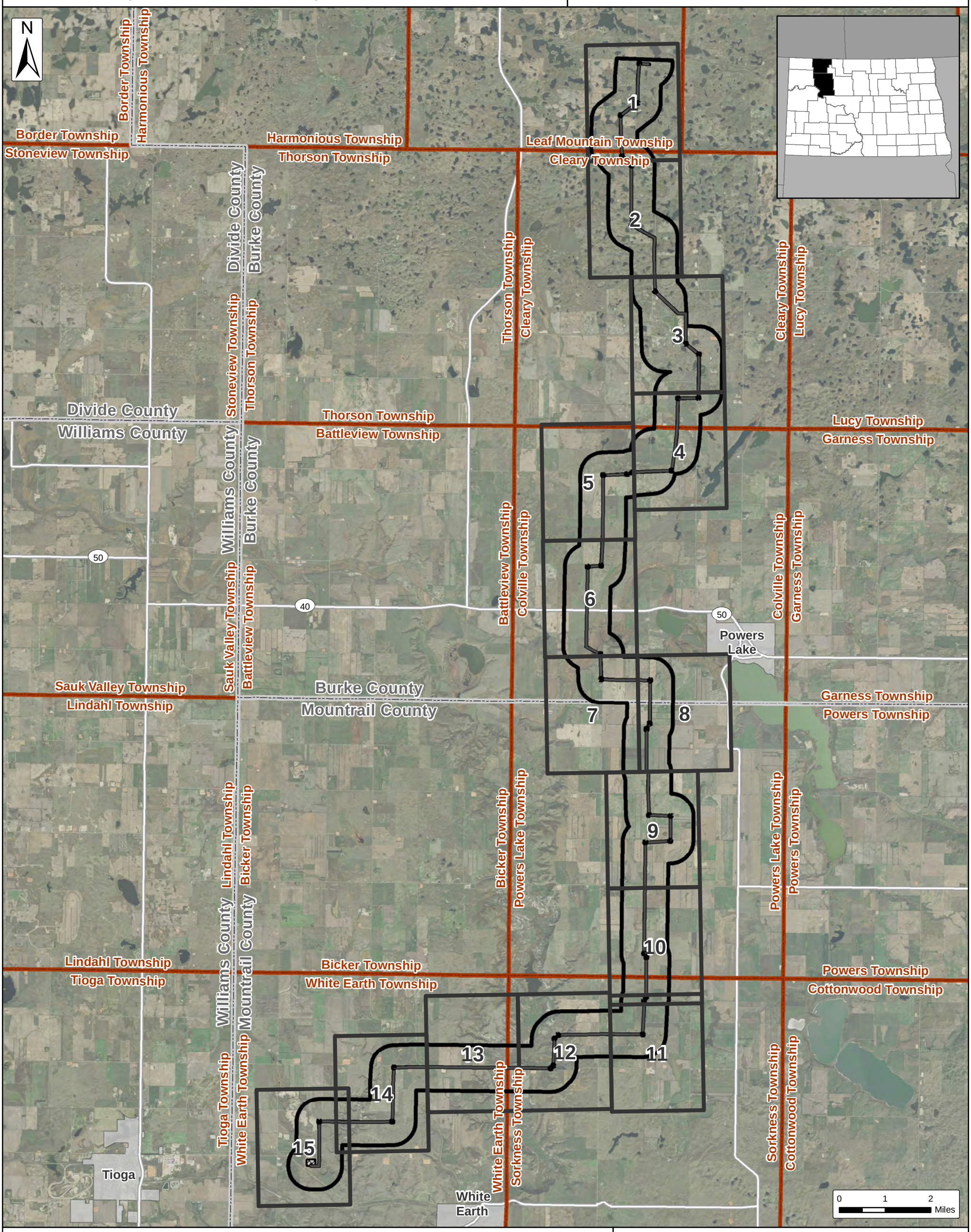
Aquatic Resources Index Map

Burke County & Mountrail County, North Dakota

Client: Burke Wind, LLC

Issue Date: 2/3/2019

Atwell, LLC Project: 16000947



Transmission Line
200 ft. Turning Structure Radius
Transmission Line 150 ft. Project Corridor
Transmission Line 1 Mile Study Area
Existing Tande Substation
Cities
Townships
Counties
Map Pages

SOURCE: USDA NAIP 2017 IMAGERY

ATWELL

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Burke Wind Transmission Line

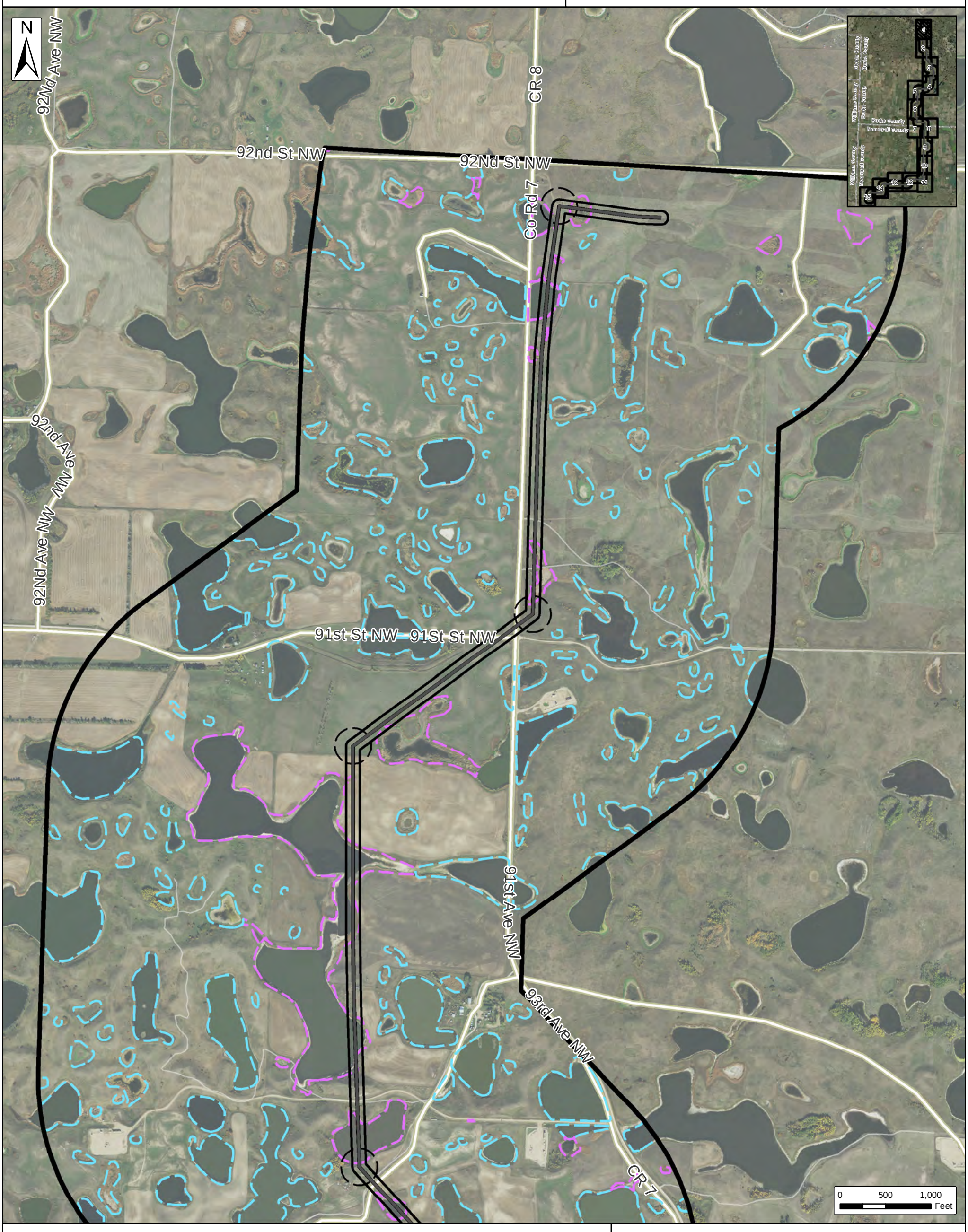
Aquatic Resources Map

Burke County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
2/3/2019

Atwell, LLC Project:
16000947



Watercourses (Atwell Desktop Review & Field Verified)
- Intermittent Watercourses
- Perennial Watercourses

Wetlands Classifications
- Potentially Jurisdictional
- Likely Isolated
- Not Classified

- Transmission Line
- 200 ft. Turning Structure Radius
- Transmission Line 150 ft. Project Corridor
- Transmission Line 1 Mile Study Area
- Existing Tande Substation
- Counties

SOURCE: USDA NAIP 2017 IMAGERY

ATWELL

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Burke Wind Transmission Line

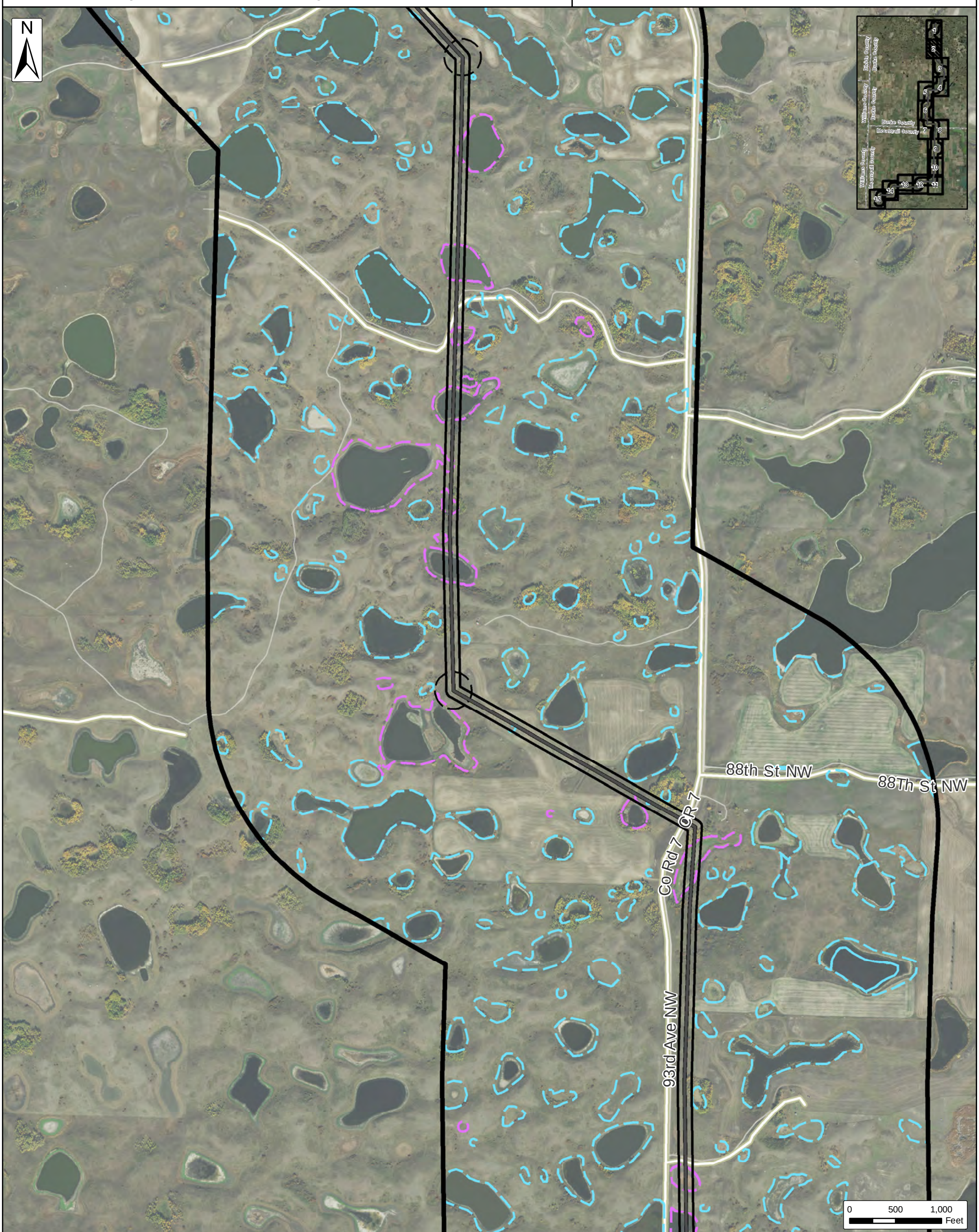
Aquatic Resources Map

Burke County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
2/3/2019

Atwell, LLC Project:
16000947



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- Existing Tande Substation
- Counties

SOURCE: USDA NAIP 2017 IMAGERY

ATWELL

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Burke Wind Transmission Line

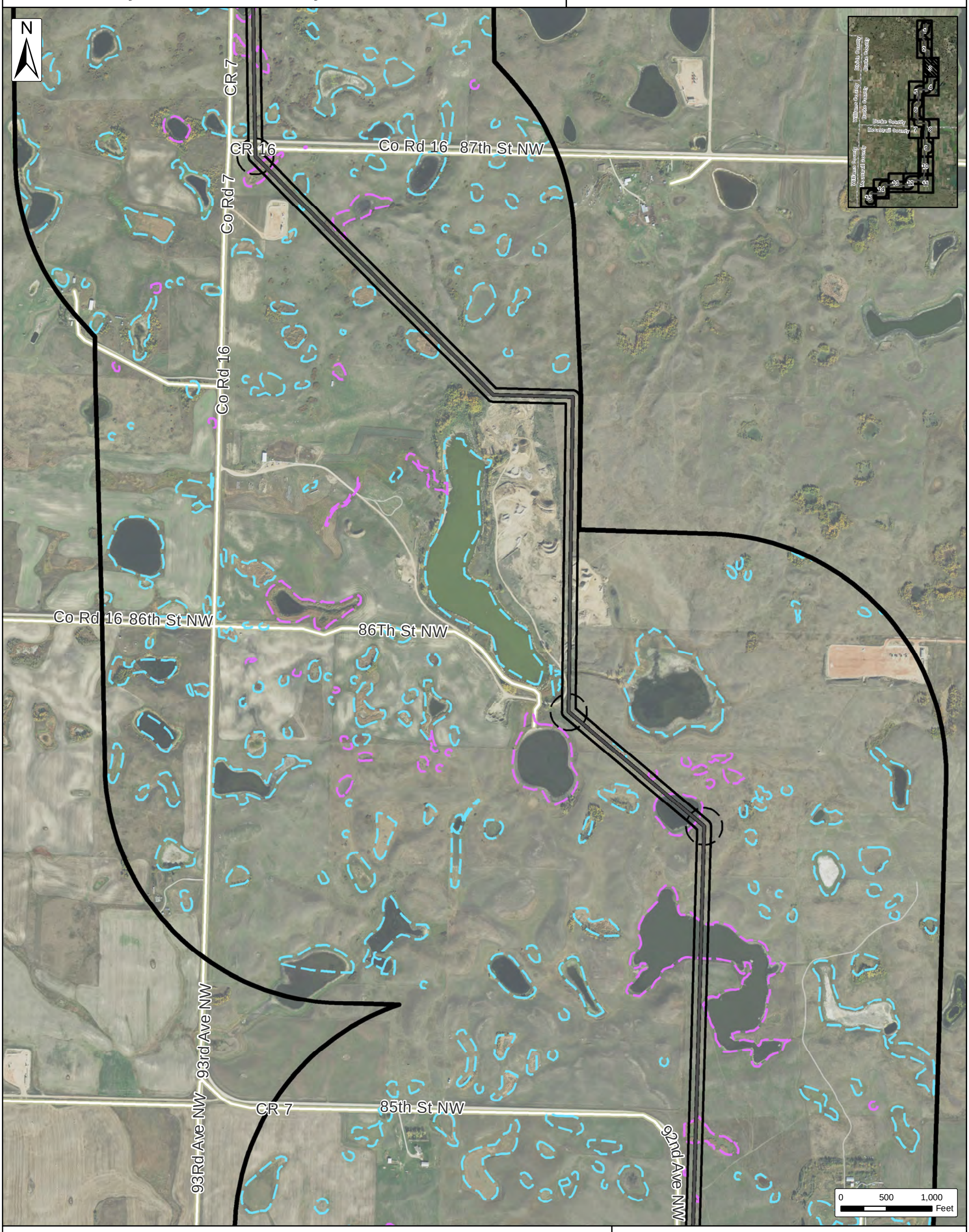
Aquatic Resources Map

Burke County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
2/3/2019

Atwell, LLC Project:
16000947



Watercourses (Atwell Desktop Review & Field Verified)
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- Perennial Watercourses

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- Transmission Line
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- Transmission Line 1 Mile Study Area
- Existing Tande Substation
- Counties

SOURCE: USDA NAIP 2017 IMAGERY

ATWELL

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Burke Wind Transmission Line

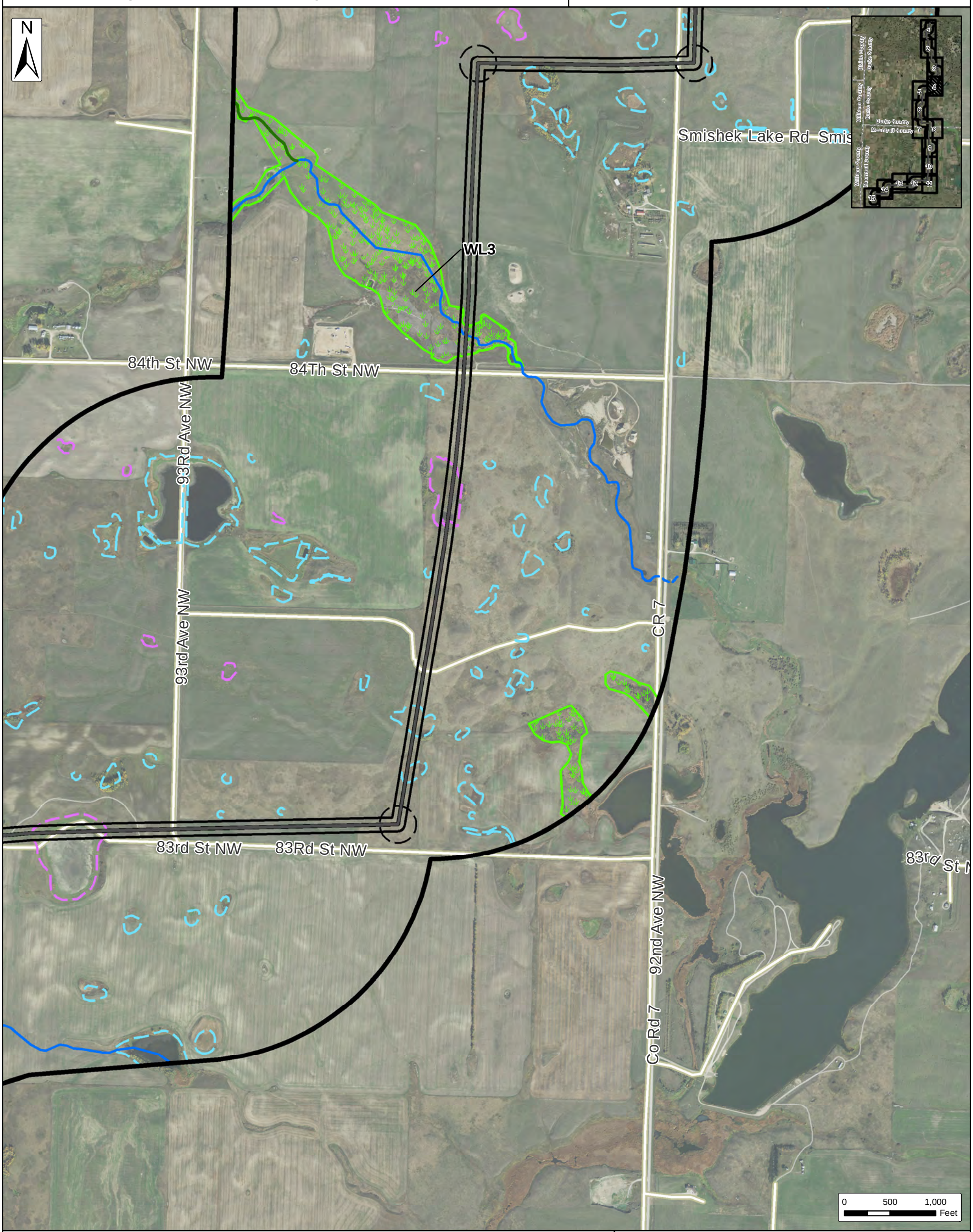
Aquatic Resources Map

Burke County & Mountrail County, North Dakota

Client:
Burke Wind, LLC

Issue Date:
2/3/2019

Atwell, LLC Project:
16000947



Watercourses (Atwell Desktop Review & Field Verified)
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- Perennial Watercourses

Wetlands Classifications
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- Likely Isolated
- Not Classified

- Transmission Line
- 200 ft. Turning Structure Radius
- Transmission Line 150 ft. Project Corridor
- Transmission Line 1 Mile Study Area
- Existing Tande Substation
- Counties

SOURCE: USDA NAIP 2017 IMAGERY

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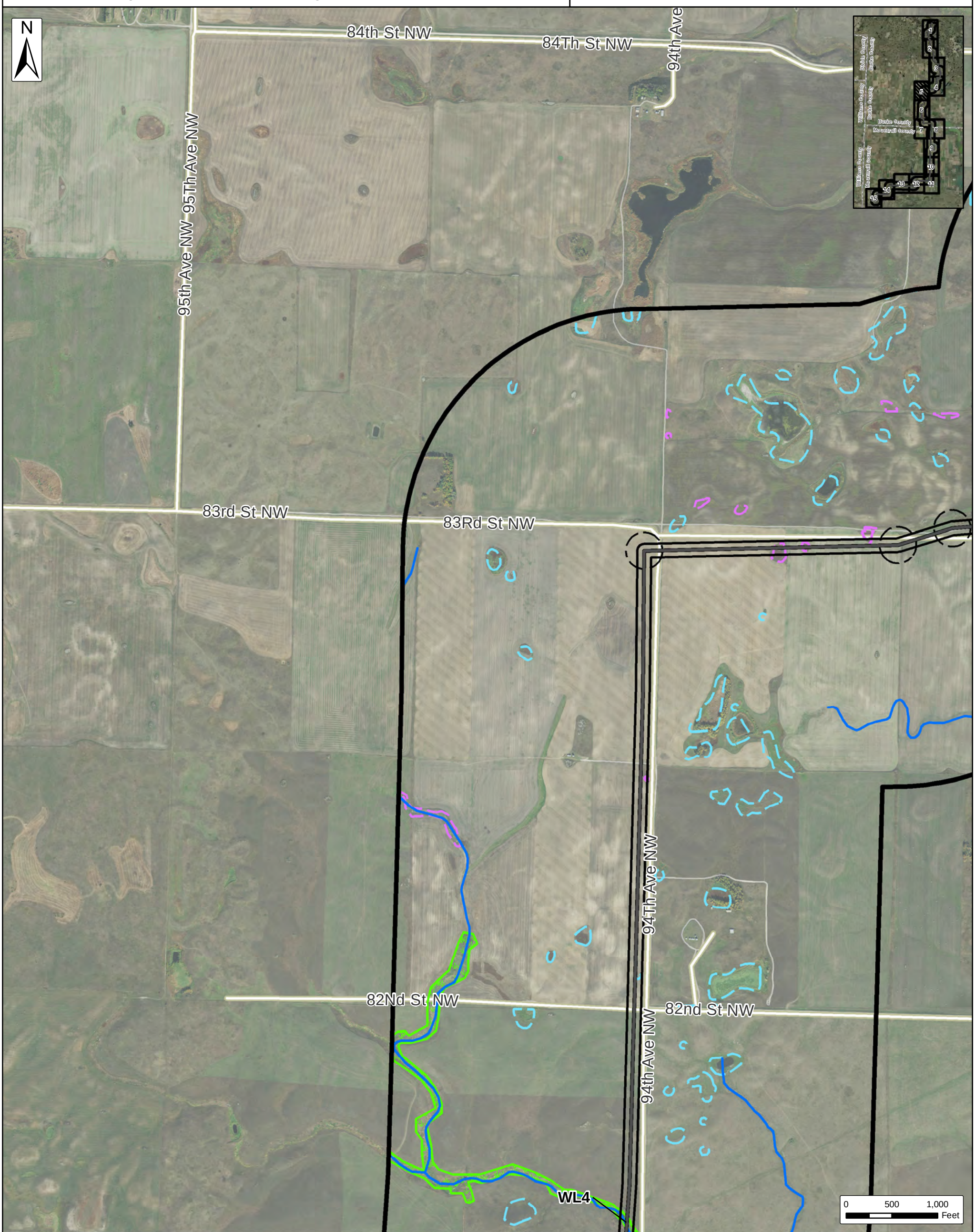

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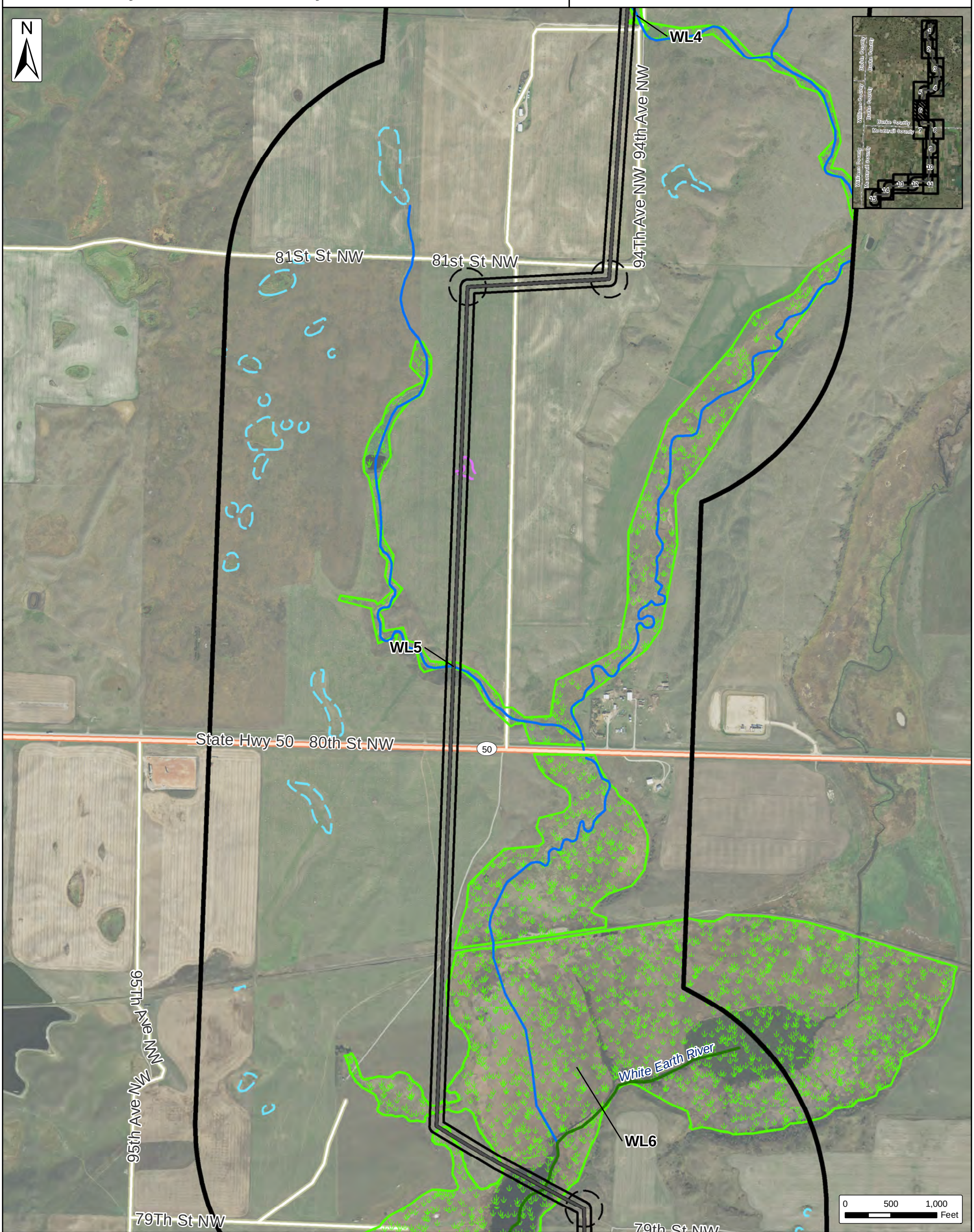

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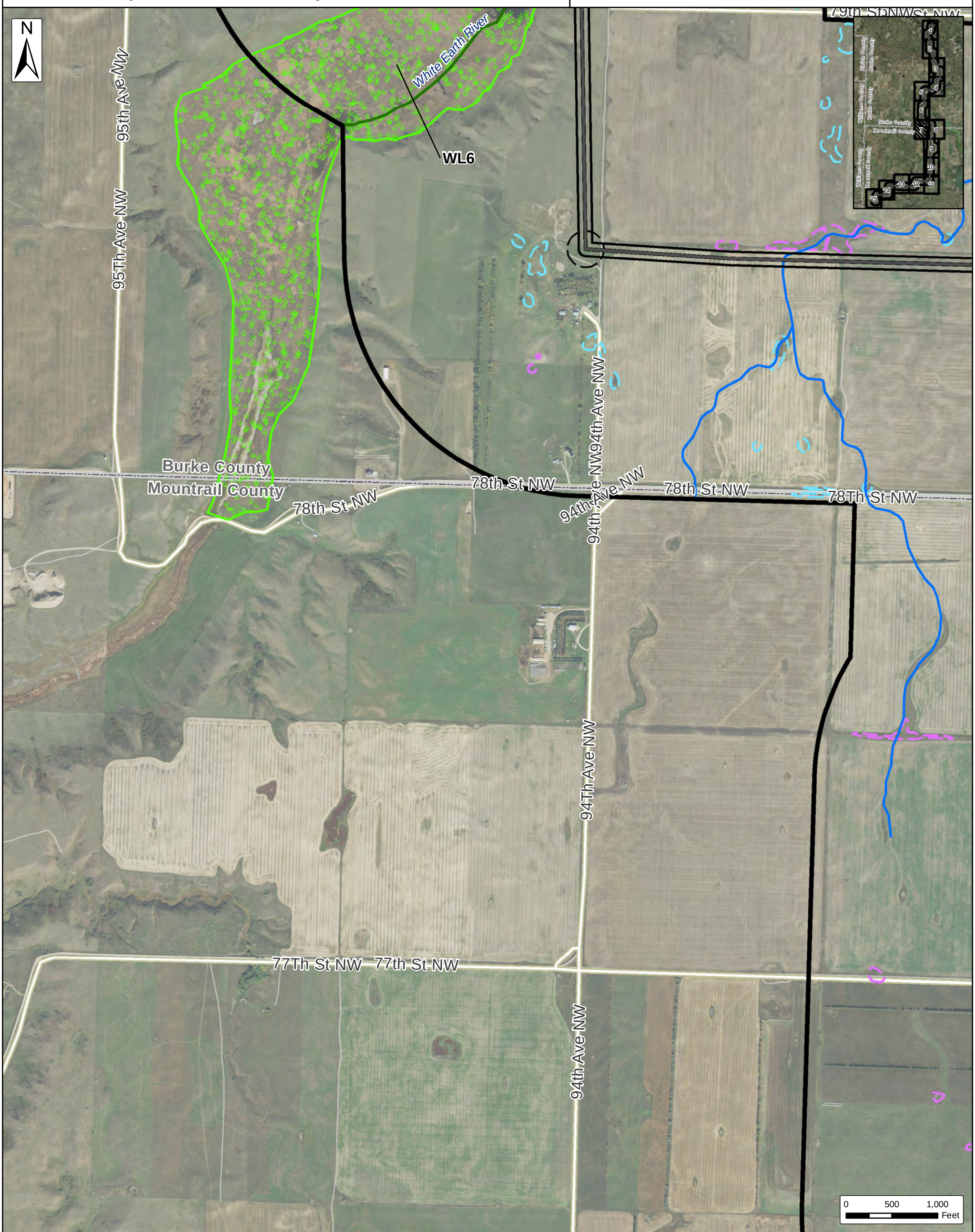

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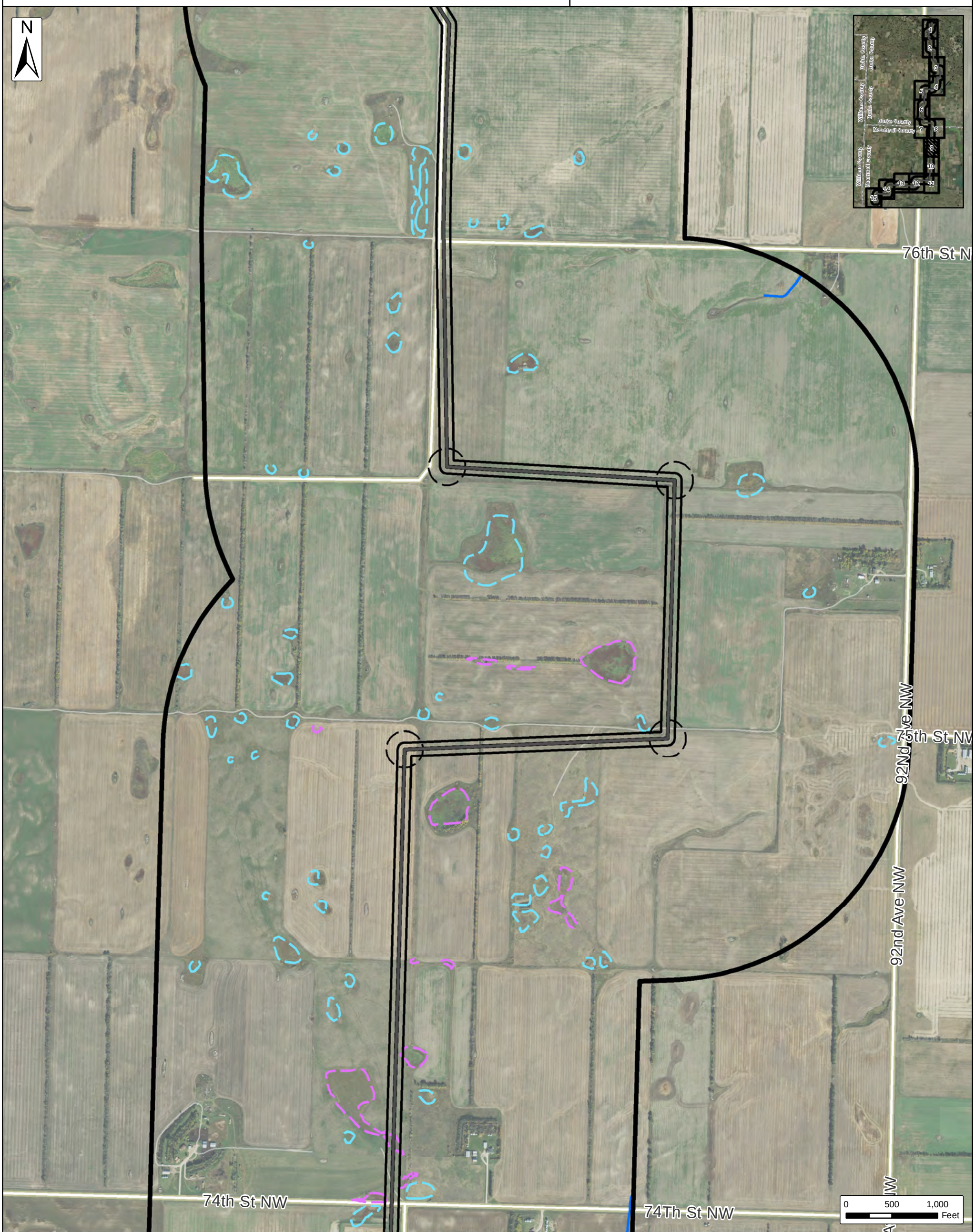

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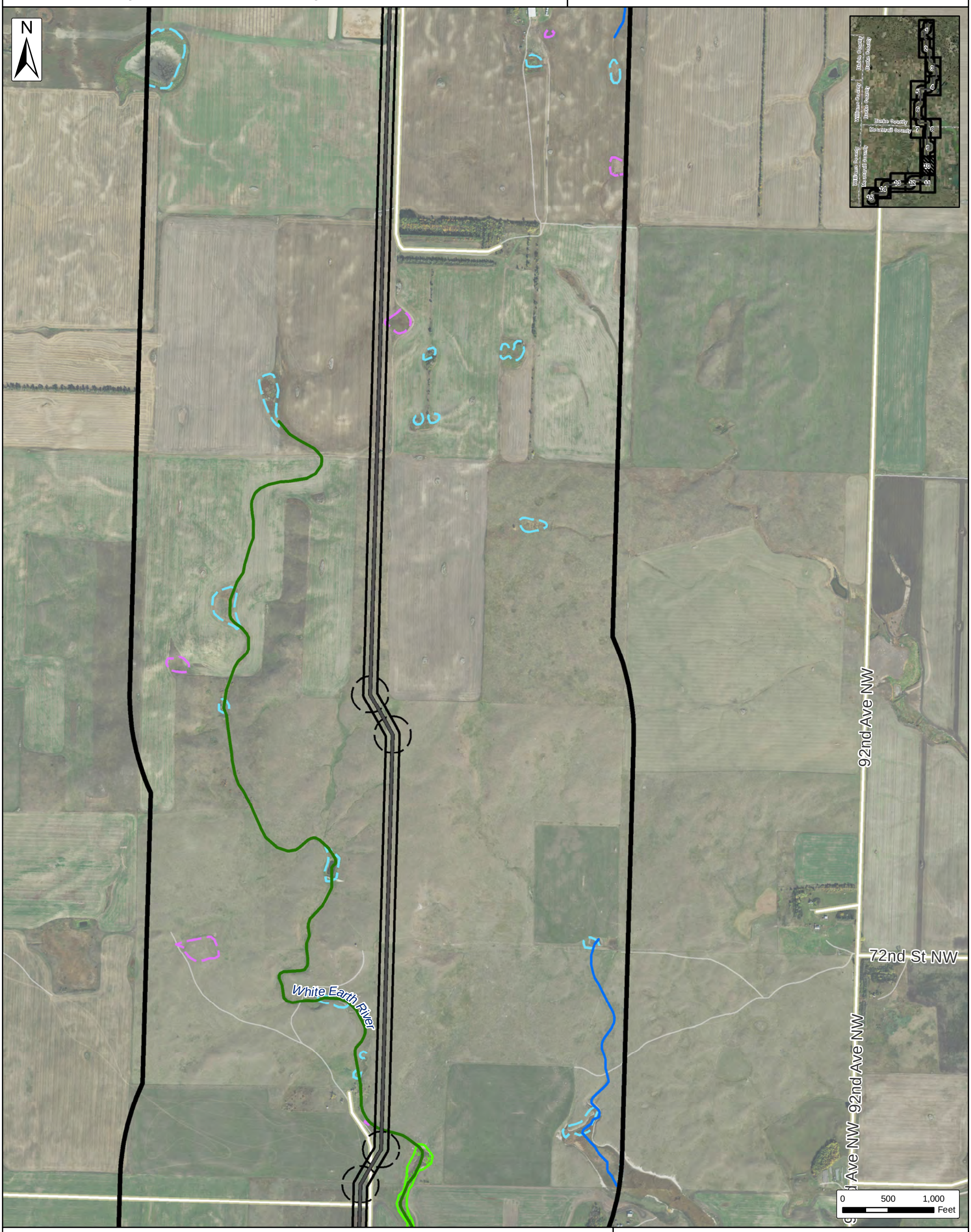

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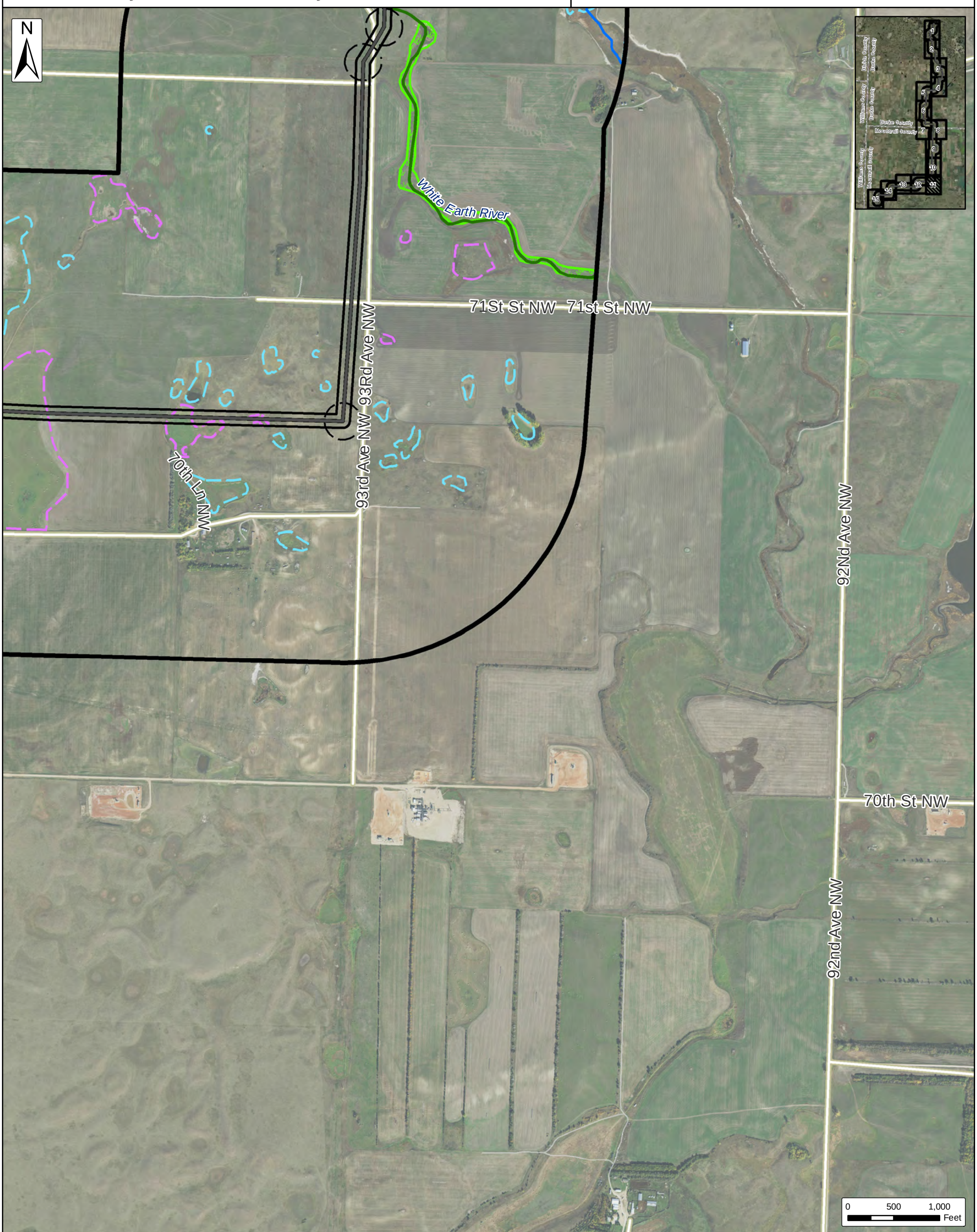

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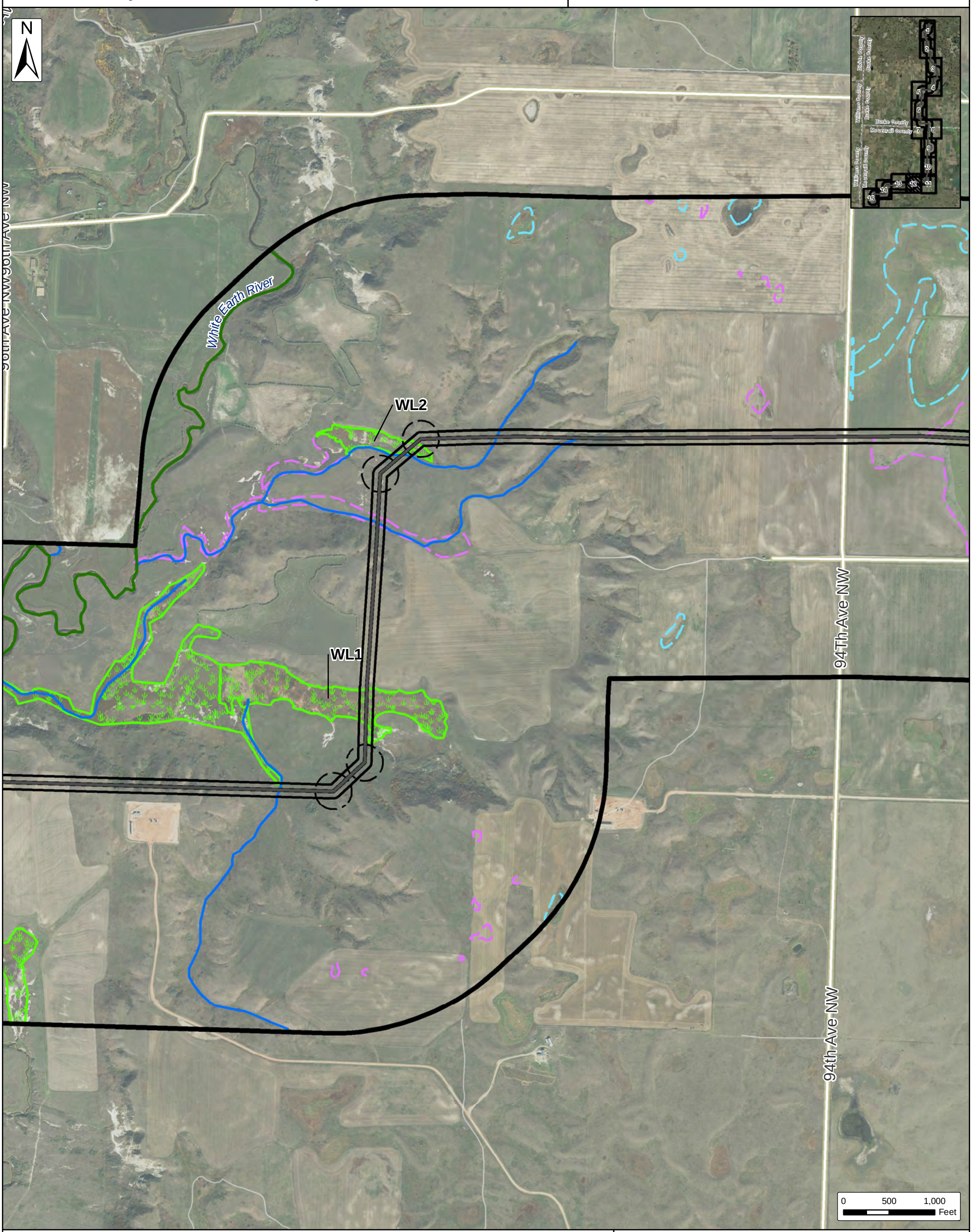

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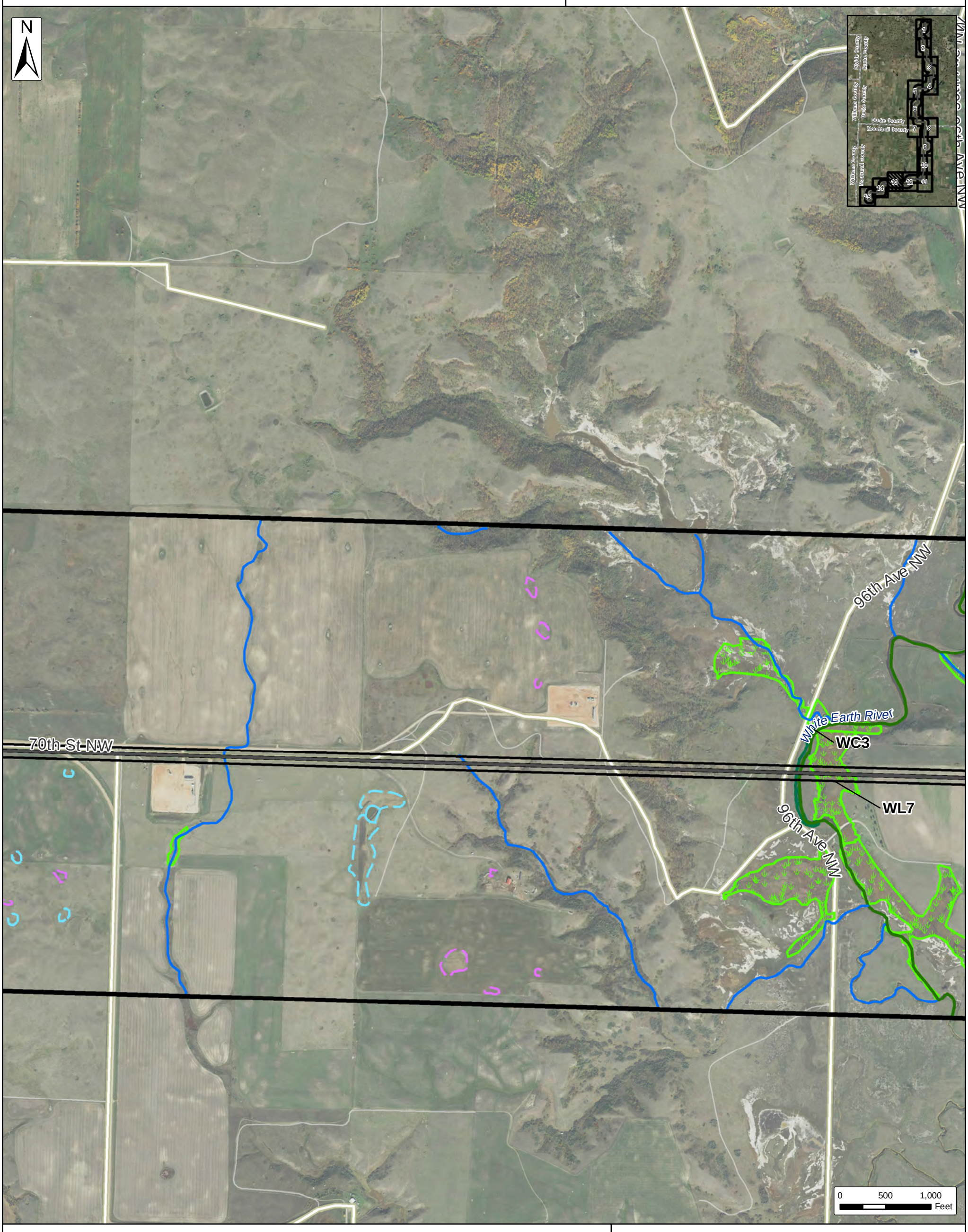

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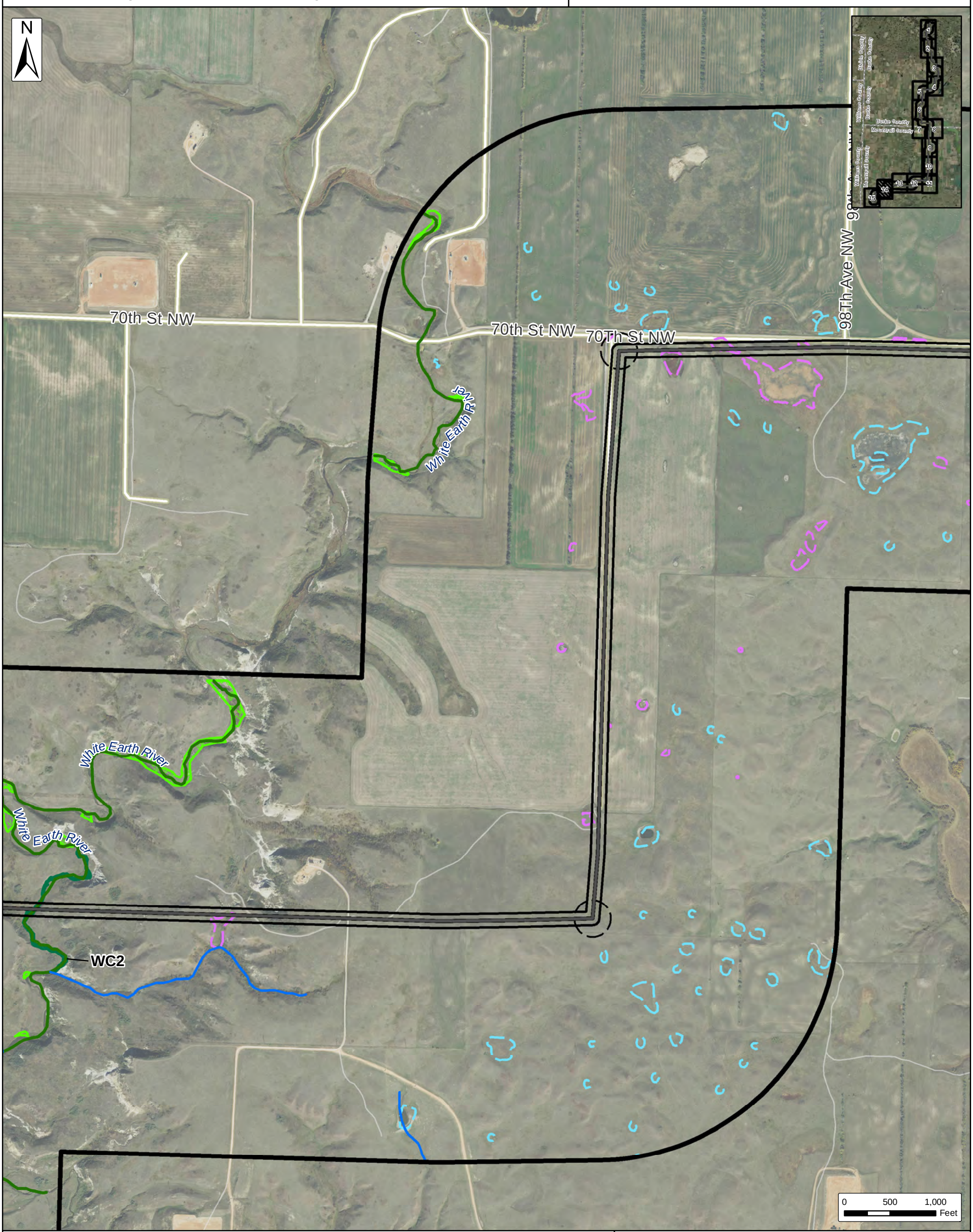

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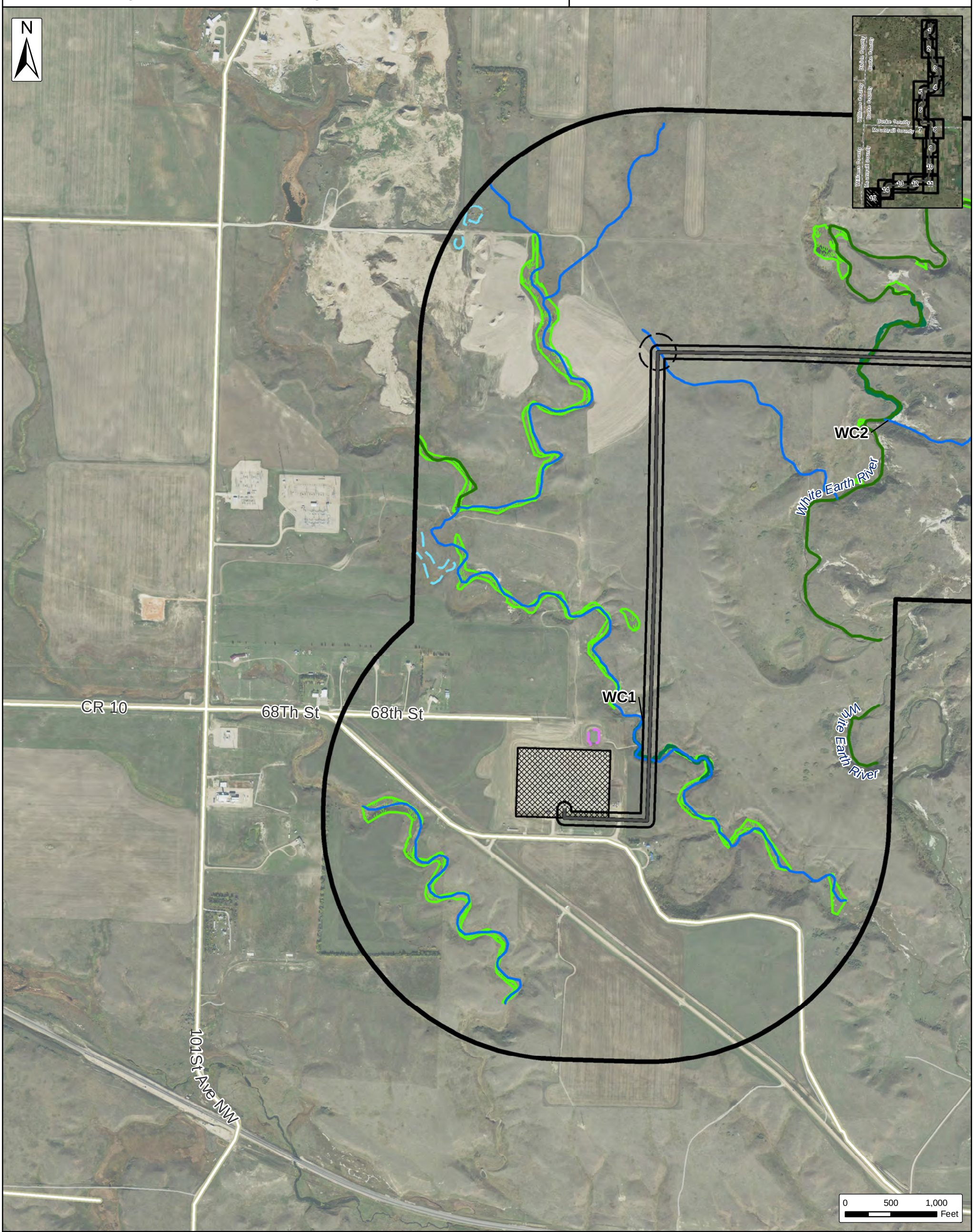

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Appendix B
USACE Nationwide Permits General and Regional Conditions

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. 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.

(d) 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.

(e) 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.

(f) 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. <u>Migratory Birds and Bald and Golden Eagles.</u> 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. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects,

both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

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 e-mail, 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 e-mail 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 engineer will 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.

District Engineer's Decision

In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and

cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

1. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site- specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences 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. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

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

1. **Wetlands Classified as Peatlands – Revoked for use**

All NWPs, 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 NWPs 3, 5, 20, 32, 38 and 45 permittees must notify the Corps in accordance with General Condition 32 (PCN) prior to initiating any regulated activity impacting peatlands.

3. **Waters Adjacent to Natural Springs – Preconstruction Notification Requirement**

For all NWPs permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 – PCN Requirement**

For all NWPs permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 NWPs**

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

NWP 7 – Outfall Structures and Associated Intake Structures and NWP 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.

NWP 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

NWP 13 – Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 32 (PCN) 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 U.S.

NWP 23 – Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 32 (PCN) prior to initiating any regulated activity. In addition to information required by General Condition 32 (PCN), 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– PCN

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 (PCN) 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

Appendix C
Photographic Log

Northern Divide 345-kV Transmission Line

Photo No.:	Date:
1	**07/30/2019**

Description:

ND- A06-WETLAND

Overview photo facing west. Photo shows the wetland vegetation marking the edge of the wetland. Wetland located within the Study Corridor.

Photo No.:	Date:
2	**07/30/2019**

Description:

ND- A06-WETLAND

Soil pit test of wetland soil. Soil shows signs of redoximorphic concentrations in the soil matrix.

Northern Divide 345-kV Transmission Line

Photo No.:	Date:
3	**07/30/2019**

Description:

ND- A13-WETLAND

Soil pit test shows wetland soil with significant amount of gleying, indicating hydric soil. Wetland located within the Project ROW.

Photo No.:	Date:
4	**08/14/2019**

Description:

ND- B01-WETLAND

Overview photo facing west. Photo shows wetland surface water surrounded by obligate vegetation. Wetland located in the northern portion of the Project ROW.

Northern Divide 345-kV Transmission Line

Photo No.:	Date:
5	**09/23/2019**

Description:

ND- B08-WETLAND

Overview photo facing west. Photo shows open water surrounded by wetland vegetation. Wetland located within the Study Corridor.

Photo No.:	Date:
6	**09/23/2019**

Description:

ND- B08-WETLAND

Soil pit test of wetland soil. Soil shows signs of redoximorphic concentrations in the soil matrix. Wetland located within the Study Corridor.