1250 West Century Avenue
Mailing Address:
P.O. Box 5601
Bismarck, ND 58506-5601
(701) 530-1600

December 22, 2022

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Re: WBI Energy Transmission, Inc.
Wahpeton Expansion Project
Supplemental Filing and Draft Environmental Impact Statement Comments
Docket No. CP22-466-000

Dear Ms. Bose:

WBI Energy Transmission, Inc. (WBI Energy), herewith submits supplemental information in the above referenced docket to assist Federal Energy Regulatory Commission (FERC or Commission) staff in the preparation of the final environmental impact statement for the Wahpeton Expansion Project (Project).

First, WBI Energy is supplementing its response to FERC staff's July 6, 2022 Environmental Information Request, Resource Report 1, Request No. 1 by providing updated archaeological and architectural survey reports for the entire Project, including the Wild Rice River Route Alternative – MP 55. The reports are included in Attachment 8 noted below and are filed under a separate cover as Privileged and Confidential. Pursuant to 18 CFR §388.112, and consistent with the Commission's precedent and other applicable regulations with respect to sensitive information, WBI Energy requests privileged and confidential treatment of this information, which is labeled: "CUI//PRIV – DO NOT RELEASE." WBI Energy continues to evaluate deep testing locations based on the results of the geomorphological evaluations and plans to perform deep testing in January 2023 or as soon as weather conditions permit.

Second, WBI Energy has reviewed the Draft Environmental Impact Statement (DEIS) FERC staff issued for the Project in November 2022 and believes it is consistent with WBI Energy's application, subsequent supplemental filings, and responses to data requests of FERC staff. WBI Energy has incorporated the Wild Rice River Route Alternative - MP 55 included in the DEIS into the Project route. WBI Energy has notified the landowners affected by this route alternative in accordance with 18 CFR 157.6(d) and is providing documentation of the notification.

Lastly, WBI Energy has made a limited number of Project changes involving minor workspace shifts and temporary access road modifications.

WBI Energy is filing with this transmittal letter its comments on the DEIS and the limited number of Project changes noted above along with the attachments noted below:

- Updated typical construction drawings in Attachment 1;
- Landowner notification documentation in Attachment 2;
- Revisions and/or updates to applicable Resource Report tables in Attachment 3;
- Revised Project Overview Map in Attachment 4;
- Revised Topographic Maps in Attachment 5;
- Revised Alignment Sheets in Attachment 6;
- Updated consultation with the U.S Fish and Wildlife Service due to the adoption of the Wild Rice River Route Alternative – MP 55 in Attachment 7;
- Archaeological and Architectural survey reports, inclusive of the adoption of the Wild Rice River Route Alternative – MP 55 (filed under separate cover as Privileged and Confidential) in Attachment 8; and
- Updated correspondence with the North Dakota State Historic Preservation Office in Attachment 9.

Pursuant to 18 CFR § 385.2010 of the Commission's regulations, copies of this filing are being served to each person whose name appears on the official service list for this proceeding.

Any questions regarding this filing should be addressed to the undersigned at (701) 530-1563.

Sincerely,

/s/ Lori Myerchin

Lori Myerchin
Director, Regulatory Affairs and
Transportation Services

Attachments

cc: via email
David Hanobic, FERC
Dawn Ramsey, FERC
Official Service List

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 22nd day of December 2022.

By /s/ Lori Myerchin
Lori Myerchin
Director, Regulatory Affairs
and Transportation Services
WBI Energy Transmission, Inc.
1250 West Century Avenue
Bismarck, ND 58503
Telephone: (701) 530-1563

STATE OF NORTH DAKOTA)
COUNTY OF BURLEIGH)

I, Lori Myerchin, being first duly sworn, do hereby depose and say that I am the Director, Regulatory Affairs and Transportation Services for WBI Energy Transmission, Inc.; that I have read the foregoing document; that I know the contents thereof; that I am authorized to execute such document; and that all such statements and matters set forth therein are true and correct to the best of my knowledge, information and belief.

Dated this 22nd day of December 2022.

By Lori Myerchin
Lori Myerchin
Director, Regulatory Affairs and
Transportation Services

Subscribed and sworn to before me this 22nd day of December 2022.

Kathleen Schuster
Kathleen Schuster, Notary Public
Burleigh County, North Dakota
My Commission Expires: 5/31/2026

KATHLEEN SCHUSTER
Notary Public
State of North Dakota
My Commission Expires May 31, 2026

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

WBI Energy Transmission, Inc. (WBI Energy) has reviewed the Draft Environmental Impact Statement (DEIS) for the Wahpeton Expansion Project (Project) and is providing the following comments.

Section 1.0

As an editorial correction, the acronym table in the DEIS defines "Plan" as Plan for Unanticipated Discovery of Historic Properties or Human Remains During Construction; however, the Executive Summary of the DEIS defines "Plan" as the Upland Erosion Control, Revegetation, and Maintenance Plan. WBI Energy believes the correct acronym is the latter Upland Erosion Control, Revegetation, and Maintenance Plan.

Section 1.1 of the DEIS states that WBI Energy has a binding precedent agreement with MDU to provide 20,600 equivalent dekatherms per day of firm natural gas transportation. WBI Energy clarifies that consistent with the information provided in Resource Report 1 of its Application, "WBI Energy intends to construct, modify, operate, and maintain the proposed Project facilities to provide an incremental 20,600 equivalent dekatherms per day of firm natural gas transportation capacity to meet a growing demand for natural gas in southeastern North Dakota. The Project is supported by a binding Precedent Agreement with MDU for 20,000 (emphasis added) equivalent dekatherms per day of firm natural gas transportation service to provide additional uninterrupted natural gas service to the community of Wahpeton and to extend natural gas service to the community of Kindred."

Table 1.5-1 of the DEIS indicates that WBI Energy is obtaining a Jurisdictional Determination from the U.S. Army Corps of Engineers – Omaha District under Section 404 of the Clean Water Act. WBI Energy clarifies that as reflected in its filed permit table as part of Resource Report 1 of its Application, and as updated in response to FERC staff's July 6, 2022 and August 10, 2022 Environmental Information Requests, WBI Energy is seeking authorization from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act via the Nationwide Permit 12 program and submitted an initial Pre-Construction Notification on May 31, 2022. A revised Pre-Construction Notification (inclusive of the adopted Wild Rice River Route Alternative - MP 55) was submitted on December 21, 2022.

Section 2.0

Section 2.1 of the DEIS under the subheading Aboveground Facilities states that "All six pig launchers and receivers would be installed within the 50-foot-wide operational pipeline right-of-way, or within the compressor station, border station facilities, or block valve sites, and the acreage of impact are included with those facilities." WBI Energy clarifies that as identified in Resource Report 1 of its Application, the Project includes only four pig launcher/receiver settings.

Regarding section 2.3 of the DEIS, WBI Energy confirms that for active agricultural lands, up to the top 12 inches of topsoil will be stripped and segregated in accordance with the FERC Upland Erosion Control, Revegetation, and Maintenance Plan. WBI Energy would like to clarify that where segregation occurs in uplands and agricultural lands, topsoil may be stripped and segregated either from the ditch and spoil storage area or across the full width of the construction right-of-way (with the exception of areas where the stripped topsoil will be temporarily piled and stored). WBI Energy is providing updated typical construction drawings depicting full right-of-way topsoil stripping in attachment 1. These include a new drawing depicting areas where the pipeline will not be adjacent to roads or other utility corridors as this was inadvertently omitted from WBI Energy's application. As indicated in the notes on the drawings the ditch and spoil side stripping method may also be utilized.

Section 3.0

See section 5.0 below where WBI Energy has adopted the Wild Rice River Route Alternative - MP 55 into the Project route. Of note, table 3.3-3 of the DEIS was developed using generic right-of-way widths and desktop data for a true comparison of the routes. As such, WBI Energy has no update to the data provided in the table.

Section 4.0

The DEIS in section 4.8.5 – Climate Change states in two locations that the Project has a subscribed capacity of 20,600 equivalent dekatherms per day. As clarified above under Section 1.0, the Project has a design capacity of 20,600 equivalent dekatherms per day and a subscribed capacity of 20,000 equivalent dekatherms per day.

Section 4.10.1 of the DEIS states the maximum distance between block valves with identified distances. WBI Energy clarifies that the Pipeline and Hazardous Materials Safety Administration's regulations in Title 49 of the Code of Federal Regulations Part 192.179 states maximum distances based on a point on the pipeline as the distances provided by FERC in the DEIS. Therefore, the distances between the block valves would be double the distances stated in the DEIS.

Section 5.0

Pursuant to FERC's recommended mitigation measure 14 as described in the DEIS, WBI Energy has adopted the Wild Rice River Route Alternative - MP 55. As requested, WBI Energy is filing revised alignment sheets and updated land use and resource tables. WBI Energy is also providing documentation that newly affected landowners have been notified in accordance with 18 CFR 157.6(d) in attachment 2.

DEIS Issue	DEIS Section, Page, and Paragraph	WBI Energy Comment (with sources)
Editorial Correction for "Plan"	Table of Contents, Technical Acronyms and Abbreviations, page vii	See discussion above in Section 1.0, paragraph 1.
Project Capacity and Precedent Agreements	Section 1.1, page 1-3 paragraph 1 Section 4.8.5 page 4-88, last paragraph Section 4.8.5.1, page 4-91, paragraph 2	See discussion above in Section 1.0, paragraph 2 and Section 4.0, paragraph 1.
U.S. Army Corps of Engineers Permitting	Section 1.5, page 1-9, table 1.5-1	See discussion above in Section 1.0, paragraph 3.
Milepost	Section 2.0, page 2-1, Description of the Proposed Action, and globally	Due to the adoption of the Wild Rice River Route Alternative – MP 55, the updated Project route is now 60.2 miles (previously 60.5 miles). For consistency, WBI Energy has not modified the mileposts before and after the newly adopted segment (e.g., from MPs 0.0 and 55.13 and MP 59.63 and to the MDU – Wahpeton Border Station at MP 60.5. The miles of pipeline in Cass and Richland Counties is 24.7 miles and 35.5 miles, respectively.

DEIS Issue	DEIS Section, Page, and Paragraph	WBI Energy Comment (with sources)
Number of pig launcher/receivers	Section 2.1, page 2-5, Aboveground Facilities, paragraph 4	See discussion above in Section 2.0, paragraph 1.
Top Soil Stripping	Section 2.3.2, page 2-15, Agricultural Areas, paragraph 1	See discussion above in Section 2.0, paragraph 2
Wild Rice River Route Alternative – MP55	Section 3.3.1, page 3-6 to 3-9, Wild Rice River Alternative – MP 55 Section 5.2, FERC Staff's Recommended Mitigation, page 5-5, Measure 14	See discussion above in Section 5.0
Block valve spacing	Section 4.10.1, page 4-96, paragraph 8	See discussion above in Section 4.0, paragraph 2.

ADOPTION OF WILD RICE RIVER ROUTE ALTERNATIVE MP – 55 AND MINOR PROJECT CHANGES

In addition to adopting the Wild Rice River Route Alternative – MP55, WBI Energy has made a limited number of Project changes involving workspace and access road modifications. A summary of the proposed changes is included in the following list and table 1 below. Updated tables, as applicable, from the resource reports are provided in attachment 3.

- Because the adopted route alternative is slightly shorter than the previously proposed route, the length of the pipeline is now 60.2 miles. For consistency, WBI Energy has not modified the mileposts before and after the adopted route alternative (e.g., from MPs 0.0 and 55.13 and MP 59.63 and to the MDU- Wahpeton Border station at MP 60.5).
- The miles of pipeline in Cass and Richland Counties is now 24.7 miles and 35.5 miles, respectively.
- A revised overview map of the Project is included as attachment 4.
- Revised topographic maps are included in attachment 5.
- Revised photo-based alignment sheets are included as attachment 6.
- None of the proposed aboveground facilities are affected by the adoption of the route alternative between MPs 55.13 and 59.63.
- Inclusive of the route alternative, the Project now includes a total of 72 guided bores.
- The total volume of water needed for drilling fluid has been updated to be approximately 1,348,562 gallons (see also Revised Summary of Guided Bore Locations – Appendix 6C table in attachment 3).
- Pursuant to FERC's recommended mitigation measure 16, an updated Section 7 consultation letter covering the adopted Wild Rice River Route Alternative – MP 55 was submitted to the U.S. Fish and Wildlife Service on November 17, 2022 and concurrence was received on December 13, 2022. These updates are reflected in the updated permits table in attachment 3, Table 1.8-1. A copy of the consultation package is provided as attachment 7. Of note, WBI Energy performed an updated query of the USFWS Information for Planning and Consultation (IPaC) system to identify federally listed species and designated critical habitat with the potential to occur within the Project area. The IPaC system generated an official species list that no longer includes the endangered poweshiek skipperling for any portion of the Project (the poweshiek skipperling was included in the official species list provided with the original Project Determination Letter submitted in May 2022). The species has been extirpated from the state of North Dakota.
- Archaeological and Architectural survey reports, inclusive of the adopted Wild Rice River Route Alternative – MP 55 were submitted to the North Dakota State Historic Preservation Office on December 2, 2022, are reflected in the updated permits table in attachment 3, Table 1.8-1, and copies of the reports are included as attachment 8 (filed separately as Privileged and Confidential). Updated correspondence with the SHPO is included as attachment 9.
- The adopted route alternative does not cross any new census block groups and results in no changes to the environmental justice analysis presented in Resource Report 5.

- None of the newly identified guided bore activities would occur 24 hours per day resulting in no change to the noise analysis presented in Resource Report 9.

TABLE 1
Wahpeton Expansion Project
Summary of Proposed Post DEIS Workspace Changes

Milepost(s)	Description of Change	Net Change in Size of Workspace	Sensitive Resources Affected/Avoided by Change	Land Use(s) Affected by Change	Change in Affected Landowners	Rationale/Reason for Change
8.7	AR_012 footprint reduced in size	-0.01 acre	Change avoids direct impacts on emergent wetland wcae001e, which was identified during 2022 delineation.	Agricultural/Developed Lands	None	Change adopted to avoid direct impact on wetland.
10	AR_013 removed and AR_013b added	-2.82 acre	Elimination of access road AR_013 avoids 0.02 acres of impact on emergent wetland wca007e, and 0.04 acres of impact on wca002e which was delineated in 2022 and not reported in the initial application). Addition of AR_013b will increase impact on emergent wetland wcaa006e by 0.03 acre. However, the net wetland impact due to the elimination of AR_013 would be reduced by -0.3 acre.	Agricultural/Developed Lands, Wetland, Open Water	None	Crossing of wetland wcaa006e is necessary to access the bore and ROW north of the Sheyenne River tributary. AR_013b is an existing farm access road, and its use will minimize impacts and the need for road modifications. Wetland impacts associated with AR0_013b will more than offset by eliminating wetland impacts associated with AR_013, which will no longer be used. As is the case for other access roads, modifications to this access road may include grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. The predominant vegetation in this wetland (comprising approximately 70 percent cover) are reed canary grass and narrowleaf cattail comprising approximately 70 percent and 30 percent cover, respectively. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast -rowing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

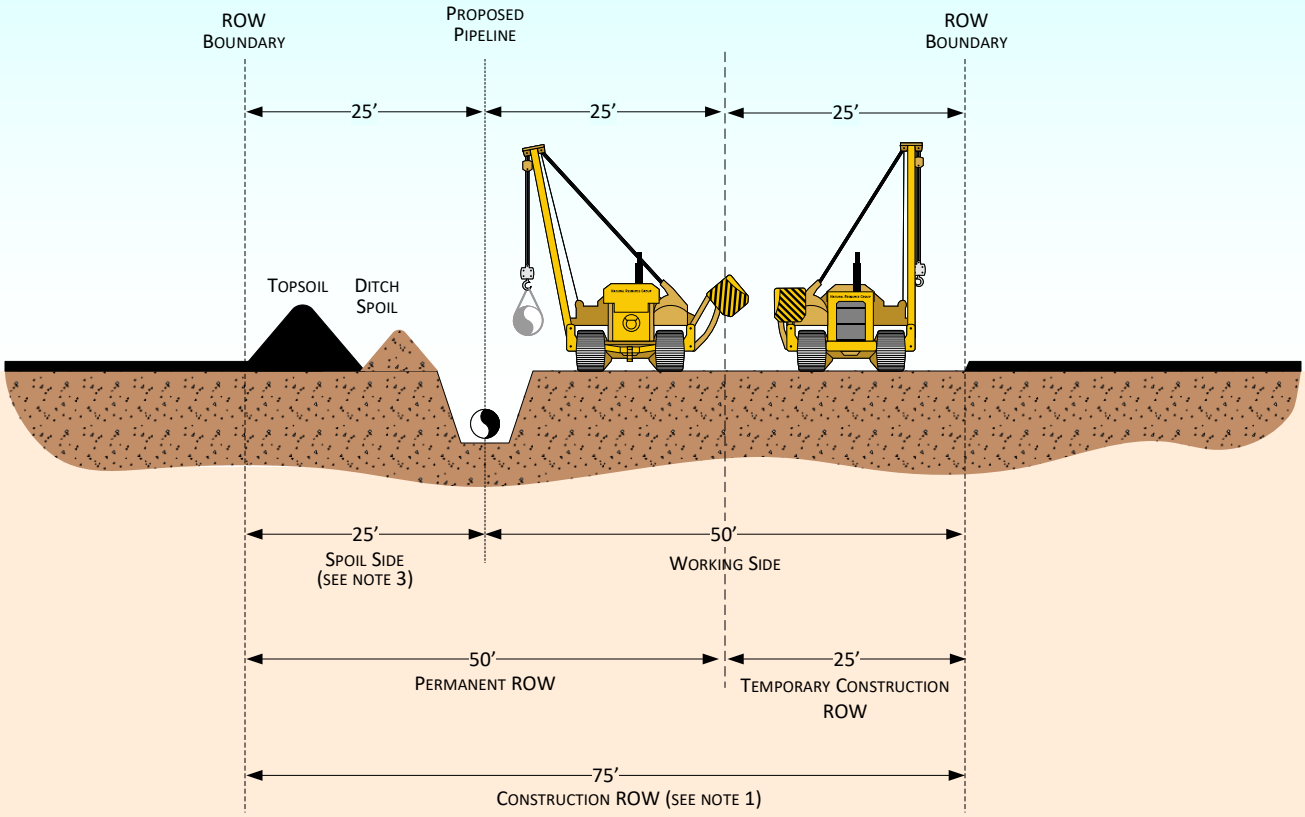
13.7	Temporary right-of-way removed from southwest corner of intersection of 44th St SE and 166th Ave SE	-0.02 acre	Removal of temporary right-of-way increases distance of workspace from emergent wetland wcab002e.	Agricultural Land	None	Change adopted to increase distance of workspace from wetland.
29.3	AR_032.1 footprint reduced in size where it connects with 56th St SE adjusted	-0.03 acre	Reduction of AR_032.1 footprint where it connects with 56th St SE avoids direct impacts on emergent wetland wraeoo1e_w.	Agricultural/Developed Lands	None	Change adopted to avoid impacts on wetland.
30.1-30.8	Pipeline and workspace moved between 170 and 540 feet west of previously proposed location	0.04 acre	Change avoids a cultural resource site[a]; no wetlands or waterbodies affected by the proposed change.	Agricultural Land	Proposed change will impact the land of one less landowner's property; no new landowners will be affected by the change.	Variation adopted to avoid a cultural resource site.
36.6	AR_040 footprint reduced where it connects to the right-of-way adjusted	-0.04 acre	Reduction and modification to access road footprint avoids direct impact on emergent wetland wrae004e_w, which was identified during 2022 delineation.	Agricultural and Open Lands	None	Change adopted to avoid impacts on wetland.
40.5	AR_043.1 footprint reduced in size where it connects to 171st Ave SE adjusted	-0.01 acre	No sensitive resources avoided or impacted by change.	Agricultural/Developed Lands	Proposed change will impact the land of one less landowner's property; no new landowners will be affected by the change	Change adopted to reduce the number of affected landowners and avoid impact on one landowner's property.
41.1	ATWS_190 increased in size south of 64th Street SE	0.04 acre	No sensitive resources avoided or impacted by change.	Agricultural Land	None	Additional workspace adopted to facilitate the 64th Street SE road bore.

55.1-59.6	New pipeline route and workspace adopted to the east of the previously proposed route (see Wild Rice River Route Alternative assessment)	-5.31 acre	No change in wetland impacts; previously proposed route and newly adopted route both avoid impacts on wetlands. Newly adopted route avoids a cultural resource site[a] and reduces perennial and intermittent waterbody crossings from 4 along the previously proposed route to 1 along the newly adopted alignment.	Agricultural Land/Developed Lands	The newly adopted route would directly impact (i.e., have construction workspace on) five fewer parcels and one less landowner than the previously proposed route. Of the seven landowners along the new route, four are landowners affected by the previously proposed route.	Adopted reroute will avoid a cultural resource site and two crossings of the Wild Rice River and reduce number of access roads needed by five and total number of waterbody crossings by three. It will also reduce the number of affected landowners and parcels.
60.1	ATWS_273 decreased in size west of 180th Ave SE	-<0.01 acre	No sensitive resources avoided or impacted by change.	Agricultural/Developed Lands	Proposed change will result in one less landowner's property being crossed; no new landowners will be affected by the change.	Change adopted to reduce the number of affected landowners and avoid impact on one landowner's property.

[a] This site was identified during WBI Energy's Class III field surveys and cannot be determined ineligible for listing on the National Register of Historic Places without further evaluation.

ENVIRONMENTAL INFORMATION REQUEST RESPONSE ATTACHMENTS

Attachment 1
Updated Typical Construction Drawings



PROFILE

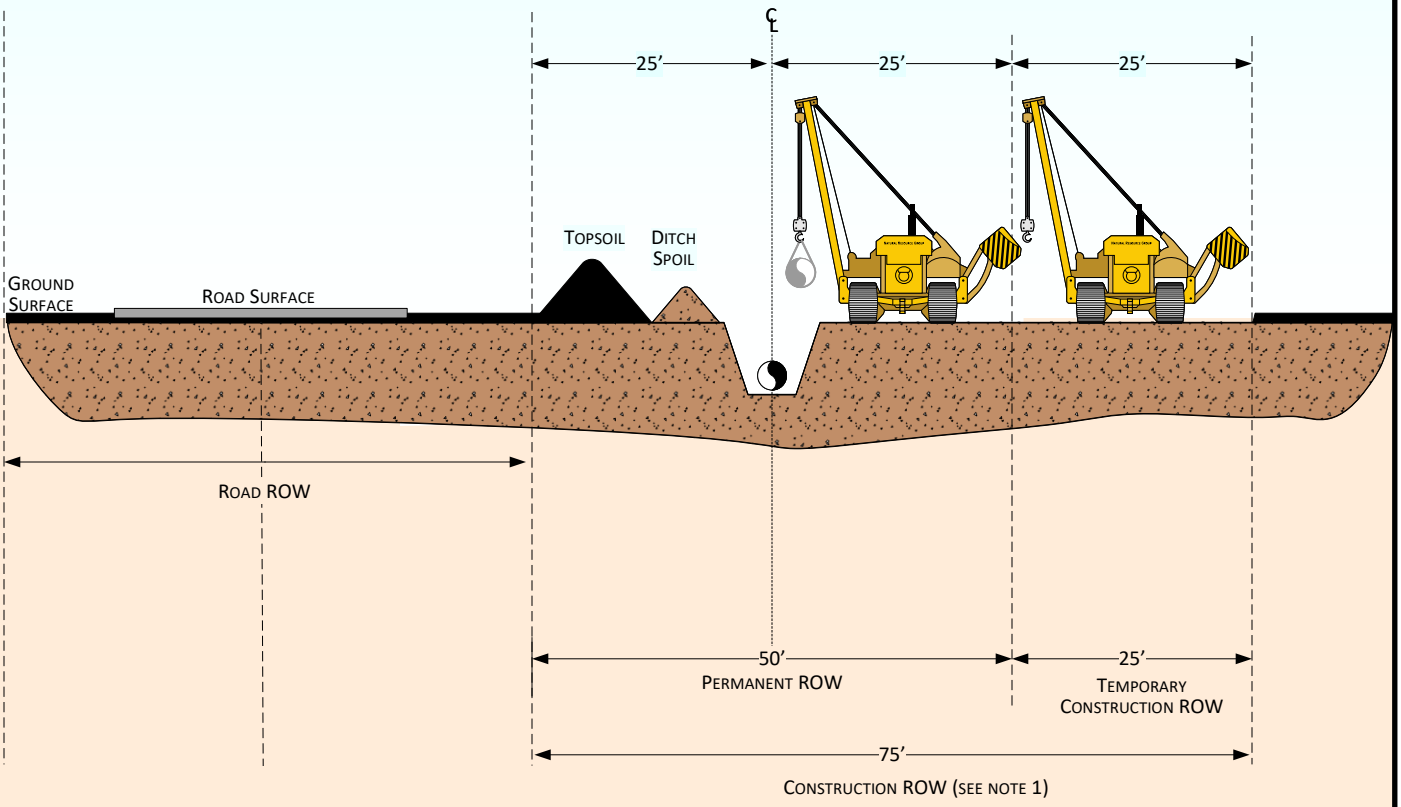
NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 75' WIDE CONSISTING OF 50' OF PERMANENT RIGHT-OF-WAY AND UP TO 25' OF TEMPORARY CONSTRUCTION RIGHT-OF-WAY. ADDITIONAL TEMPORARY WORKSPACE WILL BE NECESSARY AT MAJOR ROAD, RAIL, RIVER CROSSINGS, SIDESLOPES, AND OTHER SPECIAL CIRCUMSTANCES AS REQUIRED. ADDITIONAL TEMPORARY WORKSPACE MAY ALSO BE NECESSARY IN SOME AREAS WHERE FULL RIGHT-OF-WAY TOP SOIL STRIPPING IS CONDUCTED.
2. THIS DRAWING REFLECTS FULL RIGHT-OF-WAY TOP SOIL STRIPPING PROCEDURE. THE "TRENCH AND SPOIL SIDE" TOPSOIL STRIPPING PROCEDURE MAY ALSO BE USED.
3. STOCKPILE TOPSOIL SEPARATELY FROM DITCH SPOIL AS SHOWN OR IN ANY CONFIGURATION APPROVED BY THE INSPECTOR.

Typical Construction Right-of-Way, No Adjacent Right-of-Way
Wahpeton Expansion Project
WBI Energy Transmission, Inc.

ERM

MPLS: C:\Projects\M2W\Typicals\	M2W_ROW_Typical_Profile_FULLSTRIP.vsd	Scale: NTS	Revised: 12/8/2022	Drawn By: RJC



PROFILE

NOTES:

1. Construction right-of-way will typically be 75' wide consisting of 50' of permanent right-of-way and up to 25' of temporary construction right-of-way. Additional Temporary Workspace will be necessary at major road, rail, river crossings, sideslopes, and other special circumstances as required. Additional Temporary Workspace may also be necessary in some areas where full right-of-way top soil stripping is conducted.
2. This drawing reflects full right-of-way top soil stripping procedure. The "Trench and Spoil Side" topsoil stripping procedure may also be used.
3. Stockpile topsoil separately from ditch spoil as shown or in any configuration approved by the Inspector.

Construction Right-of-Way Adjacent to Road
Wahpeton Expansion Project
WBI Energy Transmission, Inc.

ERM

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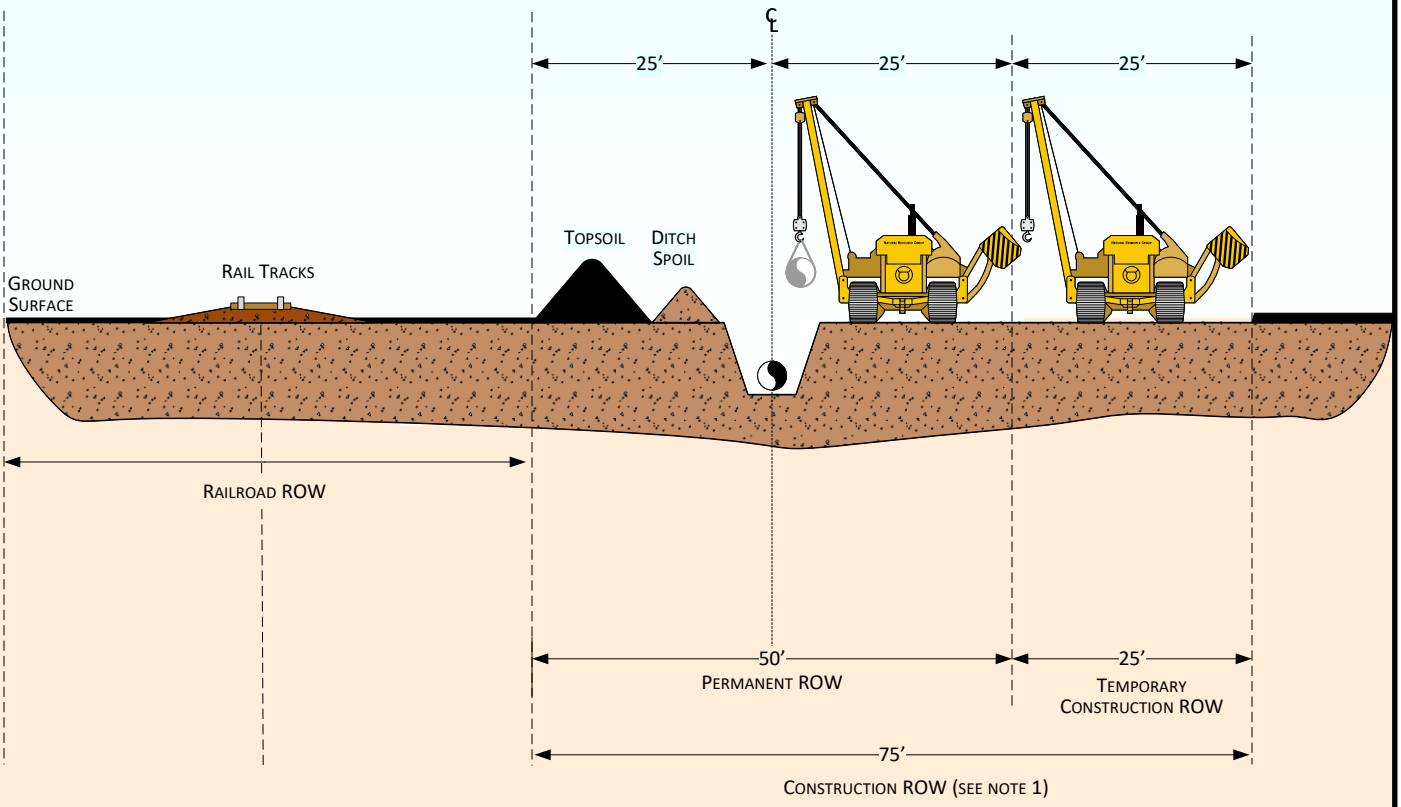

PROFILE

NOTES:

1. Construction right-of-way will typically be 75' wide consisting of 50' of permanent right-of-way and up to 25' of temporary construction right-of-way. Additional Temporary Workspace will be necessary at major road, rail, river crossings, sideslopes, and other special circumstances as required. Additional Temporary Workspace may also be necessary in some areas where full right-of-way top soil stripping is conducted.
2. This drawing reflects full right-of-way top soil stripping procedure. The "Trench and Spoil Side" topsoil stripping procedure may also be used.
3. Stockpile topsoil separately from ditch spoil as shown or in any configuration approved by the Inspector.

Construction Right-of-Way Adjacent to Road
Wahpeton Expansion Project
WBI Energy Transmission, Inc.

ERM

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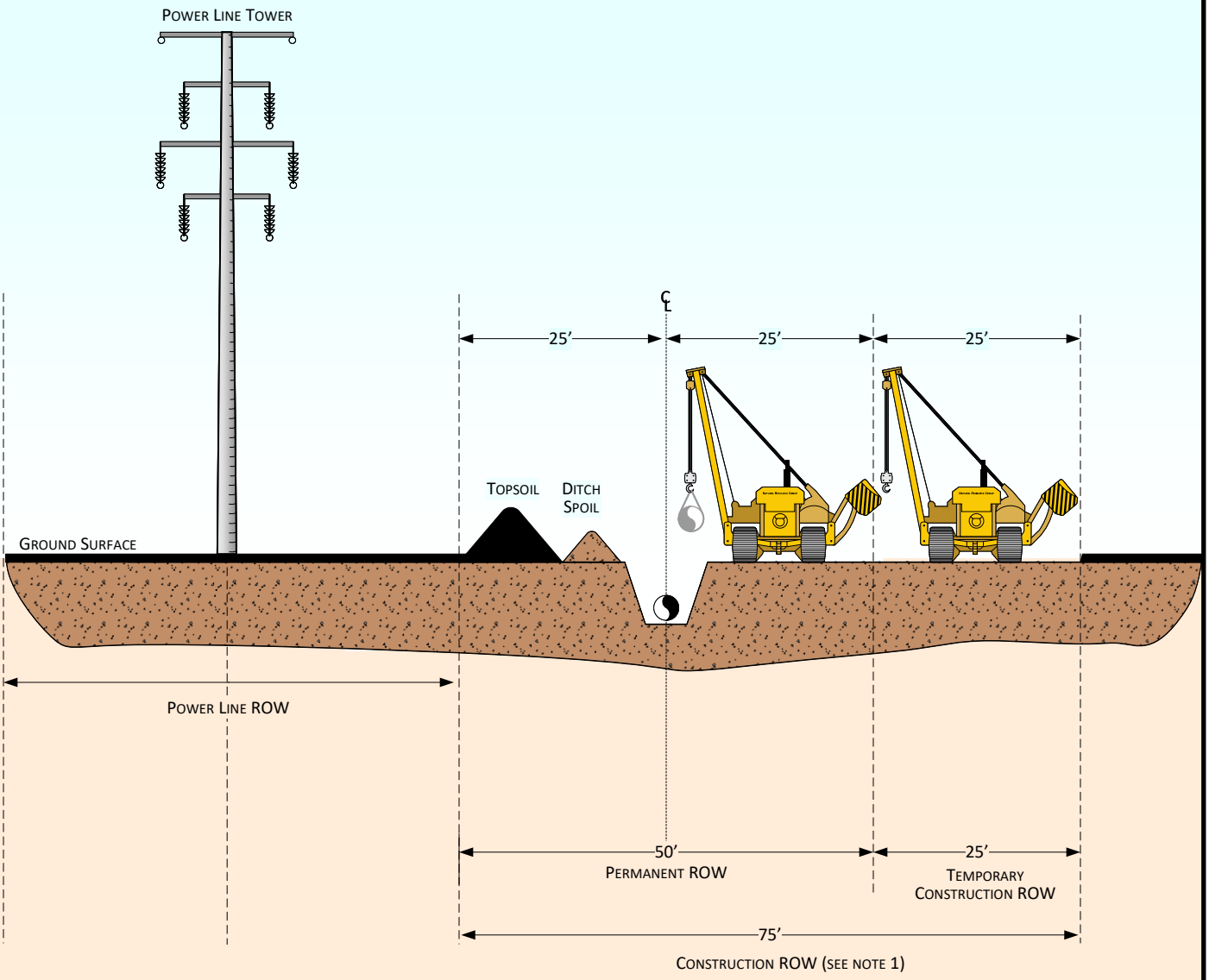

PROFILE

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 75' WIDE CONSISTING OF 50' OF PERMANENT RIGHT-OF-WAY AND UP TO 25' OF TEMPORARY CONSTRUCTION RIGHT-OF-WAY. ADDITIONAL TEMPORARY WORKSPACE WILL BE NECESSARY AT MAJOR ROAD, RAIL, RIVER CROSSINGS, SIDESLOPES, AND OTHER SPECIAL CIRCUMSTANCES AS REQUIRED. ADDITIONAL TEMPORARY WORKSPACE MAY ALSO BE NECESSARY IN SOME AREAS WHERE FULL RIGHT-OF-WAY TOP SOIL STRIPPING IS CONDUCTED.
2. THIS DRAWING REFLECTS FULL RIGHT-OF-WAY TOP SOIL STRIPPING PROCEDURE. THE "TRENCH AND SPOIL SIDE" TOPSOIL STRIPPING PROCEDURE MAY ALSO BE USED.
3. STOCKPILE TOPSOIL SEPARATELY FROM DITCH SPOIL AS SHOWN OR IN ANY CONFIGURATION APPROVED BY THE INSPECTOR.

Construction Right-of-Way Adjacent to Power Line
Wahpeton Expansion Project
WBI Energy Transmission, Inc.

ERM

MPLS: C:\Projects\M2W\Typicals\	M2W_ROW_Adjacent_Powerline_Profile_FULLSTRIP.vsd	Scale: NTS	Revised: 12/8/2022	Drawn By: RJC

Attachment 2
Landowner Notification Documentation

1250 West Century Avenue
Mailing Address:
P.O. Box 5601
Bismarck, ND 58506-5601
(701) 530-1600

November 18, 2022

[redacted]

Re: WBI Energy Transmission, Inc.
Docket No. CP22-466-000
Wahpeton Expansion Project

Greetings,

On May 27, 2022, WBI Energy Transmission, Inc. (WBI Energy) filed an application with the Federal Energy Regulatory Commission (FERC or Commission) in Docket No. CP22-466-000 requesting authority to construct, modify, maintain and operate new natural gas transmission facilities in Cass and Richland Counties, North Dakota, collectively known as the Wahpeton Expansion Project (Project).

On November 9, 2022, FERC staff issued a Draft Environmental Impact Statement (DEIS) for the Project that assesses the potential environmental effects of the construction and operation of the Project. You should have received by mail a *Notice of Availability* of the DEIS from the FERC. Included as part of the DEIS for review and comment is a route alternative proposed by WBI Energy, the Wild Rice River Route Alternative – MP 55 (Wild Rice River Alternative), that FERC staff recommends to avoid or lessen environmental impacts along the proposed pipeline route. By this letter, WBI Energy is providing information about WBI Energy and the FERC's review process for the Project to you, as a landowner whose property may be impacted by the Wild Rice River Alternative. Comments on the DEIS are due to the FERC by December 27, 2022, and the process to submit comments is included in the *Notice of Availability* of the DEIS.

WBI Energy is a natural gas company engaged in the transportation and storage of natural gas in Minnesota, Montana, North Dakota, South Dakota, and Wyoming and has been operating natural gas facilities in North Dakota for almost 100 years. WBI Energy also operates underground storage reservoirs in the Cedar Creek (Baker) Field, Montana and the Elk Basin Field, Wyoming, to serve its natural gas system.

The Wahpeton Expansion Project will allow WBI Energy to transport an additional 20,600 equivalent dekatherms of natural gas per day to southeastern North Dakota to help meet a growing demand for natural gas in this region. Montana-Dakota Utilities Co. (Montana-Dakota), a local distribution company, has contracted with WBI Energy to construct this project that will enable Montana-Dakota to provide an additional source of natural gas to the community of Wahpeton, North Dakota and extend natural service to Kindred, North Dakota for the first time to meet the community's residential, commercial and industrial needs.

The Project includes: (i) approximately 60.5 miles of new 12-inch-diameter natural gas transmission pipeline from WBI Energy's existing Mapleton Compressor Station near Mapleton, North Dakota to a new delivery station near Wahpeton; (ii) minor modifications at the Mapleton Compressor Station; (iii) a new delivery station near Kindred; and (iv) block valve and pig launcher/receiver settings located along the pipeline. The Project may also include the installation of farm taps along the pipeline route.

As noted above, FERC issued a DEIS and recommended the Wild Rice River Alternative to avoid or lesson environmental impacts along WBI Energy's proposed pipeline route.

If approved by the FERC, WBI Energy plans to construct the facilities in the Spring of 2024 and have the new facilities in service by November 1, 2024. WBI Energy will need to secure appropriate easements and land purchases prior to commencing construction.

In accordance with FERC regulations, 18 C.F.R. § 157.6(d)(3), the following informational materials are enclosed for your reference:

- A map of the general location of the Project facilities and a map of the Wild Rice River Alternative.

- The Commission's notice of WBI Energy's application. This notice provides the date by which timely motions to intervene in this proceeding are due, together with information on how to intervene or participate in this proceeding. As indicated above, the *Notice of Availability* of the DEIS provides instructions on how to comment on the DEIS.

- A pamphlet prepared by the FERC entitled "*An Interstate Natural Gas Facility on My Land? What Do I Need to Know?*" The pamphlet explains the Commission's certificate process and addresses the basic concerns of landowners.

We know the value of developing long-term relationships with landowners and communities that are impacted by our facilities and have created a Wahpeton Expansion Project website at https://www.wbienergy.com/projects/wahpeton. The Project website contains details about the Project, all public filings submitted with the FERC, WBI Energy contacts and a comment section to leave comments. A copy of the Project's application to the FERC and the DEIS are available at https://www.wbienergy.com/projects/wahpeton/wahpeton-ferc-filings/.

WBI Energy has also made the application available for public viewing at the following locations:

- Leach Public Library of Wahpeton (Wahpeton, ND); and
- Kindred City Hall (Kindred, ND).

The application is also available online at FERC's website using the "eLibrary" link at www.ferc.gov.

WBI Energy endeavors to work in partnership with landowners and to negotiate easement and land purchase agreements, as applicable, which satisfy both the landowner and WBI Energy. However, occasionally negotiations fail, and no compromise can be reached. If such is the case, and the FERC has approved WBI Energy's application, WBI Energy can obtain access to the necessary right-of-way through the applicable eminent domain (condemnation) laws. The landowner has the right to challenge such access and to obtain and be represented by legal counsel. The eminent domain (condemnation) laws for North Dakota can be found in Chapter 32-15 of the North Dakota Century Code at https://www.legis.nd.gov/cencode/t32c15.pdf.

If you have any questions or concerns regarding the work associated with the Project, or during construction and restoration of the right-of-way, please feel free to contact Wade Nielsen**,** WBI Energy's land supervisor, at 406-359-7207, toll free at 1-800-437-4630 ext. 7207, or by email at wade.nielsen@wbienery.com. The best times to reach Mr. Nielsen are between the hours of 9:00 a.m. and 5:00 p.m., Central Time, Monday through Friday. If you are unable to reach Mr. Nielsen, please leave the following information in your message:

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If you are not satisfied with the response, your questions or concerns can be directed to the undersigned, Steve Kelly, WBI Energy's Project Manager, by calling 406-359-7202, toll-free at 1-800-437-4630 ext. 7202, or by email at steve.kelly@wbienergy.com. If you are unable to reach Mr. Kelly, please leave your name and provide the information noted above. You will be contacted within two business days to discuss your concern and coordinate a resolution.

If you are still not satisfied with the response received from WBI Energy, you may wish to contact the FERC Landowner Helpline toll-free at 1-877-337-2237 or by emailing LandownerHelp@ferc.gov. The FERC Landowner Helpline, managed by the FERC Dispute Resolution Service, facilitates communication between landowners and natural gas companies. The FERC Landowner Helpline Staff will informally seek information from you and will attempt to resolve disputes without litigation or other formal proceedings. More information is available online at FERC's website at www.ferc.gov.

If you have additional questions or concerns regarding this Project or require additional information, please visit the Project website or call 1-800-437-4630. WBI Energy looks forward to working with you throughout this process.

Respectfully,

/s/ Steve Kelly
Steve Kelly
Wahpeton Expansion Project Manager

Enclosures

1250 West Century Avenue
Mailing Address:
P.O. Box 5601
Bismarck, ND 58506-5601
(701) 530-1600

November 18, 2022

[redacted]

Re: WBI Energy Transmission, Inc.
Docket No. CP22-466-000
Wahpeton Expansion Project

Greetings,

On May 27, 2022, WBI Energy Transmission, Inc. (WBI Energy) filed an application with the Federal Energy Regulatory Commission (FERC or Commission) in Docket No. CP22-466-000 requesting authority to construct, modify, maintain and operate new natural gas transmission facilities in Cass and Richland Counties, North Dakota, collectively known as the Wahpeton Expansion Project (Project).

On November 9, 2022, FERC staff issued a Draft Environmental Impact Statement (DEIS) for the Project that assesses the potential environmental effects of the construction and operation of the Project. You should have received by mail a *Notice of Availability* of the DEIS from the FERC. Included as part of the DEIS for review and comment is a route alternative proposed by WBI Energy, the Wild Rice River Route Alternative – MP 55 (Wild Rice River Alternative), that FERC staff recommends to avoid or lessen environmental impacts along the proposed pipeline route. By this letter, WBI Energy is providing information about WBI Energy and the FERC's review process for the Project to you, as a landowner whose property may be impacted by the Wild Rice River Alternative. Comments on the DEIS are due to the FERC by December 27, 2022, and the process to submit comments is included in the *Notice of Availability* of the DEIS.

WBI Energy is a natural gas company engaged in the transportation and storage of natural gas in Minnesota, Montana, North Dakota, South Dakota, and Wyoming and has been operating natural gas facilities in North Dakota for almost 100 years. WBI Energy also operates underground storage reservoirs in the Cedar Creek (Baker) Field, Montana and the Elk Basin Field, Wyoming, to serve its natural gas system.

The Wahpeton Expansion Project will allow WBI Energy to transport an additional 20,600 equivalent dekatherms of natural gas per day to southeastern North Dakota to help meet a growing demand for natural gas in this region. Montana-Dakota Utilities Co. (Montana-Dakota), a local distribution company, has contracted with WBI Energy to construct this project that will enable Montana-Dakota to provide an additional source of natural gas to the community of Wahpeton, North Dakota and extend natural service to Kindred, North Dakota for the first time to meet the community's residential, commercial and industrial needs.

The Project includes: (i) approximately 60.5 miles of new 12-inch-diameter natural gas transmission pipeline from WBI Energy's existing Mapleton Compressor Station near Mapleton, North Dakota to a new delivery station near Wahpeton; (ii) minor modifications at the Mapleton Compressor Station; (iii) a new delivery station near Kindred; and (iv) block valve and pig launcher/receiver settings located along the pipeline. The Project may also include the installation of farm taps along the pipeline route.

As noted above, FERC issued a DEIS and recommended the Wild Rice River Alternative to avoid or lesson environmental impacts along WBI Energy's proposed pipeline route.

If approved by the FERC, WBI Energy plans to construct the facilities in the Spring of 2024 and have the new facilities in service by November 1, 2024. WBI Energy will need to secure appropriate easements and land purchases prior to commencing construction.

In accordance with FERC regulations, 18 C.F.R. § 157.6(d)(3), the following informational materials are enclosed for your reference:

- A map of the general location of the Project facilities and a map of the Wild Rice River Alternative.

- The Commission's notice of WBI Energy's application. This notice provides the date by which timely motions to intervene in this proceeding are due, together with information on how to intervene or participate in this proceeding. As indicated above, the *Notice of Availability* of the DEIS provides instructions on how to comment on the DEIS.

- A pamphlet prepared by the FERC entitled "*An Interstate Natural Gas Facility on My Land? What Do I Need to Know?*" The pamphlet explains the Commission's certificate process and addresses the basic concerns of landowners.

We know the value of developing long-term relationships with landowners and communities that are impacted by our facilities and have created a Wahpeton Expansion Project website at https://www.wbienergy.com/projects/wahpeton. The Project website contains details about the Project, all public filings submitted with the FERC, WBI Energy contacts and a comment section to leave comments. A copy of the Project's application to the FERC and the DEIS are available at https://www.wbienergy.com/projects/wahpeton/wahpeton-ferc-filings/.

WBI Energy has also made the application available for public viewing at the following locations:

- Leach Public Library of Wahpeton (Wahpeton, ND); and
- Kindred City Hall (Kindred, ND).

The application is also available online at FERC's website using the "eLibrary" link at www.ferc.gov.

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Respectfully,

/s/ Steve Kelly
Steve Kelly
Wahpeton Expansion Project Manager

Enclosures

Attachment 3
Revised Resource Report Tables

TABLE 1.1-3

Wahpeton Expansion Project
Revised Summary of Land Requirements [a]

Facility	County	Land Affected During Construction (acres)	New Land Affected During Operation (acres)
Pipeline Right-of-Way [b]			
Project Pipeline	Cass, Richland	542.2	363.6
ATWS[c]	Cass, Richland	111.4	0.0
Subtotal		**653.6**	**363.6**
Contractor Yards			
Kost Yard	Cass	34.2	0.0
Kindred Yard	Cass	4.1	0.0
Comstock South Yard[d]	Richland	4.7	0.0
Comstock North Yard[e]	Richland	21.0	0.0
Wahpeton City Yard	Richland	28.5	0.0
Subtotal		**92.5**	**0.0**
Access Roads			
Temporary access roads	Cass/Richland	20.5	0.0
Permanent access roads	Cass/Richland	3.2	3.2
Subtotal		**23.6**	**3.2**
Aboveground Facilities			
Mapleton Compressor Station	Cass	2.9	0
MDU—Kindred Border Station[f]	Cass	4.1	1.7
MDU—Wahpeton Border Station[f]	Richland	4.0	1.7
Valve Site #1 [g]	Cass	0.0	0.0
Valve Site #2	Cass	0.7	0.1
Valve Site #3 [g]	Cass	0.0	0.0
Valve Site #4	Richland	0.5	<0.1
Valve Site #5	Richland	1.0	0.1
Valve Site #6	Richland	0.4	<0.1
Valve Site #7 [g]	Richland	0.0	0.0
Pig launchers/receivers [h]	Cass/Richland	0.0	0.0
Cathodic Protection Facilities [i]	Cass/Richland	0.0	0.0
Subtotal		**13.6**	**3.6**
PROJECT TOTAL		**783.3**	**370.4**

TABLE 1.1-3

Wahpeton Expansion Project
Revised Summary of Land Requirements [a]

Facility	County	Land Affected During Construction (acres)	New Land Affected During Operation (acres)

[a] The numbers in this table have been rounded for presentation purposes; as a result, the totals may not reflect the sum of the addends.

[b] Based on a 75-foot-wide construction right-of-way for the 12-inch-diameter pipeline and a 50-foot-wide permanent right-of-way. Includes the cathodic protection facilities (the locations of which have not yet been determined), which are expected to be installed within the currently proposed workspace for the pipeline and aboveground facilities.

[c] Includes ATWS associated with pipeline.

[d] The Comstock South Yard (formally the Wahpeton Yard) was renamed after WBI Energy submitted its draft resource reports.

[e] The Comstock North Yard (formally the Comstock Yard) was renamed after WBI Energy submitted its draft resource reports.

[f] The acreage for these aboveground facilities excludes the temporary and permanent pipeline right-of-way within the temporary construction footprint of the facility. This acreage is attributed under the acreage for the pipeline.

[g] Valve #1 will be constructed and operated within the Mapleton Compressor Station fence line. Valves #3 and #7 will be constructed and operated within the construction and operational footprints of the MDU—Kindred Border Station and the MDU—Wahpeton Border Station, respectively. Land requirements for Valves #1, #3, and #7 are accounted for in the land requirements for the compressor station modification and MDU Border Stations.

[h] The four pig launcher/receiver settings will be collocated with Valves #1, #2, #5, and #7; therefore, land requirements for the pig launchers/receivers are accounted for in the land requirements for the four valve sites or other aboveground facilities (i.e., the compressor station modifications and the MDU—Wahpeton Border Station).

[i] The specific locations of the cathodic protection facilities are still being determined. These facilities are expected to be installed within the currently proposed workspace for the pipeline and aboveground facilities.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
VI.B.1.a	Locate all extra workspace (ATWS; such as staging areas and additional spoil storage areas) at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.	33.4/33.5	Locate ATWS 159 and ATWS 160 in an emergent wetland wrib007e	ATWSs in wetland wrib007e	The ATWSs south of the road (ATWS 156 and ATWS 160) are needed for staging and spoil storage associated with the guided bore of County Road 2. This workspace is located in an agricultural hay field that includes emergent wetland wrib007e. The wetland begins between MPs 33.4 and 33.5, about 95 feet south of the road and extends south from there for approximately 550 feet. Most of ATWS 156 and a small portion of ATWS 160 are located in wrib007e (but most of ATWS 160 is 40 or more feet from the edge of the wetland). To avoid having ATWS in this wetland, either the road bore, which is about 185 feet long, would need to be extended or spoil from the road bore would need to be moved another 590 feet further south. The first option would nearly quadruple the length of the bore. The second would require additional equipment traffic back and forth within the wetland to relay the bore spoil to the new ATWS outside of the wetland. Neither of these options is practicable or warranted given that its implementation of the Procedures will protect and restore the wetland. Additionally, only 0.9 acre of the emergent wetland will be affected by the workspace (construction right-of-way and ATWS) for the bore and the wetland consists mostly (90 percent cover) of foxtail barley and lesser amounts of other mostly fast growing species including yellow foxtail and reed canary grass, which will quickly recolonize any disturbed areas. WBI Energy will protect and restore wetland wrib007e by implementing FERC's procedures.
		35.65	Locate ATWSs 165 and 166 within 50 feet of an emergent wetland wrib016e associated with a road ditch adjacent to 62nd Street SE.	ATWSs within 14 to 15 feet of wetland wrib016e and within 40 feet of wetland wrib017e	The ATWS south of the road is needed for staging and spoil storage associated with the guided bore of 62nd Street SE. This workspace is located in open land between emergent wetland wrib016e, adjacent to the road and emergent wetland wrib017e to the south. Both wetlands are dominated by the following three species in different proportions: narrowleaf cattail, reed canary grass, and prairie cordgrass. ATWSs 165 and 166 are approximately 14 to 15 feet from the wetland wrib016e and 40 feet from wrib017e, respectively. There is not enough distance between these two wetlands to maintain the ATWS 50 feet from both wetlands. WBI Energy elected to position the workspace closer to wrib016e in the road ditch to maintain the ATWS further from the larger wetland wrib017e. WBI Energy's implementation of the construction and restoration measures of the FERC Procedures, including the installation, maintenance, and monitoring of erosions and sediment controls, will protect wetlands wrib016e and wrib017e.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		36.1	Locate ATS 167 in emergent wetland wrib019e.	ATWS is within wetland wrib019e	The ATWS north of the road is needed for staging and spoil storage associated with the guided bore of 168th Avenue SE. The ATWS is located within emergent wetland wrib019e, which is dominated primarily by reed canary grass but includes lesser amounts (less than 10 percent cover) of goldenrod species, sandbar willow, peachleaf willow, and gray dogwood. The ATWS is approximately 170 from the road but the wetland extends north from the road beyond the ATWS. To avoid having ATWS in this wetland, either the road bore, which is about 270 feet long, would need to be extended or spoil from the road bore would need to be moved another approximately 600 feet further north. The first option would nearly triple the length of the bore. The second would require additional equipment traffic back and forth within the wetland to relay the bore spoil to the new ATWS outside of the wetland. Moving the ATWS north would also encroach on one of the few forested wetlands on the Project. Neither of these options is practicable. Only 0.9 acre of the emergent wetland will be affected by the workspace (construction right-of-way and ATWS) for the bore and the wetland consists mostly (75 percent cover) of fast growing reed canary grass, which, along with the other existing species, will quickly recolonize any disturbed areas. WBI Energy will implement the FERC Procedures to protect and restore this wetland.
VI.B.1.d	The only access roads, other than the construction right-of-way, that can be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.	5.1	Access Road (AR)_005	Crosses wetland	New temporary AR_005 crosses emergent wetland wcaa009e east of 165th Avenue SE. This wetland is covered almost entirely (98 percent cover) with reed canary grass. This wetland needs to be crossed to access the north side of the Burlington Northern Santa Fe Railroad bore at MP 5.1. As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Approximately 0.11 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing reed canary grass, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		~~9.9~~	~~AR 013~~	~~Crosses wetland~~	~~New temporary access road AR 013 crosses emergent wetland wcaa007e. This wetland needs to be crossed for equipment to access the workspace associated with the bore of wetland wcaa006e. This wetland is dominated by reed canary grass (95 percent cover) and narrowleaf cattail (5percent cover). As described in the table in appendix 8B, work on the new road may include grading, widening, and placement of mats, gravel, and/or culverts. Approximately 0.02 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.~~
		10.0	AR_013b	Crosses wetland	New temporary access road AR_013b is an extension of AR 014, which increases the crossing of emergent wetland wcaa006e. AR_13.b will eliminate the need for access road AR 013. The additional wetland impacts associated with AR_013b will be offset by eliminating the wetland impacts associated with AR_013. Access road AR_013b will utilize an existing farm access road, thus minimizing impacts but as is the case for other access roads, may require grading, widening, and placement of mats, gravel, and/or culverts. The predominant vegetation in this wetland (comprising approximately 70 percent cover) is reed canary grass. The next most common species, covering approximately 30 percent of the wetland is narrowleaf cattail. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast-growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		13.7	AR_018	Crosses wetland	Existing/New temporary access road AR_018 crosses emergent wetland wacb003e, which is associated with a road ditch that runs along the east side of 166th Avenue SE on the south side of 44 Street SE. This wetland is dominated by needle spikerush, dark-green bulrush, narrowleaf cattail, and swamp smartweed. This wetland needs to be crossed for equipment to access the workspace associated with the 44th Street SE/right-of-way from the 166th Avenue SE road bore. As described in the table in appendix 8B, work on the new portion of the road and modifications to the existing portions may include grading, widening, and placement of mats, gravel, and/or culverts. Approximately 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.
		14.7	AR_019	Crosses wetland	New temporary access road AR_019 crosses emergent wetland wcab004e, which is associated with a road ditch that runs along the west side of 166th Avenue SE on the south side of 45th Street SE. This wetland is dominated by swamp smartweed, prairie cordgrass, redroot pigweed (red-root or common amaranth), narrowleaf cattail, and smaller amounts of needle spikerush. This wetland needs to be crossed for equipment to access the workspace associated with the 45th Street SE/right-of-way from 166th Avenue SE road bore right-of-way from 166th Avenue SE. As described in the table in appendix 8B, work on this access road may include grading, widening, and placement of mats, gravel, and/or culverts. Approximately 0.01 acre of this wetland will be within the temporary construction footprint of the road. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		20.1	AR_024.1	Crosses wetland	AR_024.1 crosses of emergent wetland wcae004e_w, which was delineated during the 2022 wetland surveys. Crossing wetland is necessary to access the right-of-way from 166th AVE SE. There is an existing turn out here that will minimize impacts including fill that may be necessary to utilize this road. Other potential right-of-way access from 50th Street SE to the north or 51st Street SE from the south do not have existing turnouts and would require substantial fill to move equipment from the elevated road surface onto the ROW. As described in the table in appendix 8B of Resource Report 8, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. The predominant vegetation covering approximately 95 percent of the wetland is reed canary grass. The next most prevalent species, comprising approximately 10 percent cover, is Kentucky bluegrass. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that are needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast-growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		31.3	AR_034	Crosses wetland	Existing/New permanent access road AR_034 crosses emergent wetland wria003e, which is in the road ditch on the north side of 58th Street SE. This wetland is dominated by needle spikerush, dark-green bullrush, reed canary grass, and narrowleaf cattail. WBI Energy needs to cross the wetland to access the Valve #4 site during construction and for later operation of the valve. As described in the table in appendix 8B, work on the road may include grading, widening, and placement of mats, gravel, and/or culverts. Less than 0.01 acre of this wetland will be within the construction and permanent footprint of the road. WBI Energy will protect adjacent wetland areas through implementation of the FERC Procedures including the use of erosion and sediment controls. Following installation of the road, WBI Energy will remove any mats, culverts, or gravel that are not needed for the permanent road and restore any portions of the wetland that are temporarily affected. Given that the wetland consists mostly of fast growing species, any temporarily impacted areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.
		34.5	AR_038	Crosses wetland	New temporary access road AR_038 crosses emergent wetland wrib021e, which is located in a field south of 61st SE. The predominant vegetation in this wetland is foxtail barley, goldenrod species, reed canary grass, and all other species constituting 10 percent cover or less. WBI Energy's crossing of this wetland will minimize equipment traffic crossing the wetland on the right-of-way and potentially minimize tree clearing. As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Approximately 0.26 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		43.4	AR_046	Crosses wetland	Existing temporary access road AR_046 crosses emergent wetland wria010e, which is in a road ditch on the west side of 172nd Avenue SE. This wetland is dominated by narrowleaf cattail (60 percent cover) with lesser amounts of reed canary grass, perennial sow thistle, and yellow foxtail (each less than five percent cover). As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.
		43.4	AR_046	Crosses wetland	Existing temporary access road AR_046 crosses emergent wetland wrid005e, which is connected to wetland wria010e in the road ditch on the east side of 172nd Avenue SE. Wetland wrae005e_w, which was identified during 2022 delineations after WBI Energy's application was filed, is dominated by reed canary grass (approximately 50 percent cover), curly dock (approximately 25 percent cover), and common dandelion (approximately 2 percent cover). As described in the table in appendix 8B of Resource Report 8, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		44.2	AR_046.1	Crosses wetland	Existing temporary access road AR_046.1 crosses emergent wetland wria014e, which is in a road ditch on the west side of 172nd Avenue SE. This wetland is dominated by narrowleaf cattail (80 percent cover) with lesser amounts of reed needle spikerush (about 10 percent cover). As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.
		46.3	AR_049	Crosses wetland	New temporary access road AR_049 crosses emergent wetland wrid001e, which is in a road ditch on the east side of 172nd Avenue SE. This wetland is dominated by broadleaf cattail. As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.3-1

Wahpeton Expansion Project
Revised Proposed Modifications to the FERC Plan and FERC Procedures

Procedures Section Number	Measure	MP	Proposed Modification	Distance to Wetland	Justification for Proposed Modification
		47.3	AR_051	Crosses wetland	New temporary access road AR_051 crosses emergent wetland wrid003e, which is in a road ditch on the east side of 172nd Avenue SE. This wetland is dominated by narrowleaf cattail and reed canary grass. As described in the table in appendix 8B, modifications including grading, widening, and placement of mats, gravel, and/or culverts may be needed for this access road. Less than 0.01 acre of this wetland will be within the temporary construction footprint of the road. WBI Energy will protect the wetland through implementation of the FERC Procedures including the use of erosion and sediment controls. Following construction when the road is no longer needed, WBI Energy will restore the affected wetland area pursuant to the FERC Procedures. Any mats, culverts, or gravel that is needed will be removed from the wetland and the preconstruction grade will be restored. Given that the wetland consists mostly of fast growing species, any areas of the wetland that are disturbed will be quickly recolonized with vegetation similar to what is in the wetland now.

TABLE 1.8-1
Wahpeton Expansion Project
Revised Environmental Permits, Approvals, and Consultations

Agency	Permit/Approval/Consultation	Anticipated Submittal Date	Anticipated Approval Date
Federal			
FERC	Certificate under Section 7(c) of the Natural Gas Act	May 27,2022*	July 2023
United States Army Corps of Engineers—Omaha District and	Section 404 permit for discharges of dredged or fill material into waters of the United States, including jurisdictional wetlands via Nationwide Permit 12.	May 31, 2022* Addendum December 21, 2022	Q2 2023
United States Fish and Wildlife Service—Region 6—North Dakota Field Office and United States Fish and Wildlife Service—Valley City and Tewaukon Wetland Management District	Informal consultations for impacts on federally listed threatened and endangered species and critical habitat under Section 7 of the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Gold Eagle Protection Act, and the Fish and Wildlife Coordination Act; consultation for impacts on federal conservation easements for grasslands and wetlands	May 27, 2022* Supplemental Filing November 17, 2022*	June 29, 2022* Supplemental Response December 13, 2022
United States Department of Agriculture, Natural Resources Conservation Service—North Dakota	Consultations regarding erosion and sedimentation controls and seed mixes and Agricultural Conservation Easement Program	January 2022*	February 2022*
Federal Aviation Agency	Hazard Determination—MDU—Kindred Border Station site operation and temporary construction crane usage	Revised Application May 23, 2022*	August 8 2022*
North Dakota			
North Dakota Department of Environmental Quality, Division of Water Quality	General Permit for Construction Stormwater Discharge under the National Pollutant Discharge Elimination System	February 2024	April 2024
	General Permit for Construction Dewatering and Discharge of Hydrostatic Test Water under the National Pollutant Discharge Elimination System	February 2024	April 2024
North Dakota State Water Commission	Navigable Water Crossing Permit under North Dakota Century Code Chapter 61–33 (Sovereign Lands)	October 2023	February 2024
	Temporary Water Permit—Water appropriation permit for withdrawals associated with hydrostatic test water and drilling mud		
North Dakota Department of Game and Fish	Consultation for impacts on fisheries and wildlife	December 3, 2021*	May 13 2022*
	Approval to use water from designated waters of the state known to be infested with aquatic nuisance species	February 2024	March 2024
North Dakota Parks and Recreation Department	Consultation under the North Dakota Natural Heritage Program	September 2021*	January 2022*
State Historical Society of North Dakota	Consultation for impacts on historic properties under Section 106 of the National Historic Preservation Act	December 2, 2022*	Q2 2023
North Dakota Department of Transportation	Utility Crossing permits for state highway right-of-way	January 2024	March 2024

TABLE 1.8-1
Wahpeton Expansion Project
Revised Environmental Permits, Approvals, and Consultations

Agency	Permit/Approval/Consultation	Anticipated Submittal Date	Anticipated Approval Date
Local and County			
Cass and Richland Counties	County Road, Section Line, Building and above ground facilities, and Legal Drain Crossing Permits	January 2024	March 2024
BNSF Railway Company	Railroad Crossing Permits	January 2024	March 2024
Red River Valley and Western Railroad	Railroad Crossing Permits	January 2024	March 2024
Cass County—Mapleton Township	Conditional Use Permit and Floodplain Permit	January 2024	April 2024
Cass County—Normanna Township	Building Permit and Floodplain Permit	January 2024	April 2024

* - Actual submittal or received date

APPENDIX 1D
Wahpeton Expansion Project
Revised Summary of Collocated Facilities

Collocated Utility Owner	Utility Type	Begin Milepost	End Milepost	Direction to Existing Utility/Road Right-of-Way	Paralleled Length (miles) [a]
WBI Energy	Natural gas pipeline	0.0	0.4	South	0.4
Road	Road	3.6	4.4	North, West	0.8
NuStar Energy LP	Products pipeline	4.4	5.3	South, West	0.9
Road	Road	6.4	9.3	East, West	2.8
Road	Road	10.6	14.4	West, East	3.8
Road	Road	14.7	18.8	East	4.1
Road	Road	18.8	19.7	East	1.0
Road	Road	19.8	21.8	West	2.0
Road	Road	21.8	22.4	North	0.6
Road	Road	23.3	23.7	North	0.4
Road	Road	24.3	24.5	East	0.1
Unknown, Road	Electric utility, road	25.7	26.8	South	0.1
Unknown, Road	Electric utility, road	25.7	26.6	South	1.0
None	Road	36.6	36.8	Northeast	0.2
Minnkota, Road	Electric utility, road	38.5	39.5	West	1.0
Road	Road	39.5	40.5	South	1.0
Road	Road	40.9	41.0	South	0.1
Red River Valley and Western, Road	Railroad, road	42.4	47.4	East, West	5.0
Red River Valley and Western, Road	Railroad, road	47.3	47.4	Southwest	0.1
Red River Valley and Western, Road	Railroad, road	47.4	48.4	South	0.9
Road	Road	48.4	48.9	East	0.5
Road	Road	53.9	55.2	East	1.3
Road	Road	55.5	55.6	East	0.1
Road	Road	59.0	60.5	East, West	1.5
PROJECT TOTAL					**29.6**

Red Text indicates changes in acreages from pre-DEIS project design.

[a] The totals may not match the sum of addends due to rounding.

TABLE 2.2-2

Wahpeton Expansion Project
Revised Waterbodies Crossed by the Project [a]

MP	Unique ID	Waterbody Name [b]	North Dakota Water Quality Classification [c]	Flow Regime [d]	Crossing width (feet) [e]	Pipeline Crossing Method [f]
HUC 12 Watershed 090202050704						
1.2	scad001p	Maple River	Class II	PN	79	Bore
HUC 12 Watershed 090202050603						
3.9	scaa002e	Unnamed tributary to the Maple River	Class III	E	13	Bore
5.9	scaa003e	Roadside ditch	Class III	E	<10	Bore
HUC 12 Watershed 090202040605						
10.7	scab001e	Roadside ditch	Class III	E	<10	Bore
10.7	scae002i	Roadside ditch	Class III	I	<10	Bore
15.7	scae004e	Roadside ditch	Class III	E	<10	Bore
HUC 12 Watershed 090202040604						
19.7	scab005e	Roadside ditch	Class III	E	<10	Open Cut
23.3	scae003e	Roadside ditch	Class III	E	<10	Bore
HUC 12 Watershed 090201051005						
24.1	scab006p	Sheyenne River	Class IA	PN	42	Bore
HUC 12 Watershed 090201051005						
29.3	sria001e	Roadside ditch	Class III	E	<10	Bore
34.5	srie006i	Roadside ditch	Class III	I	<10	Open Cut
34.5	srie005i	Roadside ditch	Class III	I	<10	Open Cut
HUC 12 Watershed 090201051004						
39.9	sria002e	Unnamed ditch	Class III	E	<10	Bore
41.0	sric002p	Unnamed tributary to Wild Rice River	Class III	PN	23	Bore
HUC 12 Watershed 090201051001						
45.0	srid002p	Pitcairn Creek	Class III	PN	15	Bore
47.4	sird001e	Roadside ditch	Class III	E	<10	Open Cut
HUC 12 Watershed 090201050907						
50.9	srie004p	Antelope Creek	Class II	PN	27	Bore
HUC 12 Watershed 090201050805						
51.1	srid003p	Wild Rice River	Class II	PN	297	Bore
HUC 12 Watershed 090201040401						
55.4	sirb006e	Roadside ditch	Class III	E	<10	Bore
HUC 12 Watershed 090201050805						
58.0	sire001e	Roadside ditch	Class III	E	<10	Open Cut
Access Roads						
HUC 12 Watershed 090202040605						
8.8	sca004e	Roadside ditch	Class III	E	<10	NA
HUC 12 Watershed 090201051005						
19.7	scab005e	Roadside ditch	Class III	E	<10	NA
HUC 12 Watershed 090201051005						
29.3	sria001e	Roadside ditch	Class III	E	<10	NA
HUC 12 Watershed 090201051001						
47.3	srid001e	Roadside ditch	Class III	E	<10	NA
60.5	srie003e	Roadside ditch	Class III	E	<10	NA

[a] Based on the data from Project field surveys to date, USGS mapping, National Hydrography Dataset data, the North Dakota State Water Commission's geographic information system data viewer, and review of aerial photographs.

TABLE 2.2-2

Wahpeton Expansion Project
Revised Waterbodies Crossed by the Project [a]

[b]	Waterbody names are based on USGS topographic maps.
[c]	See section 2.2.2 below for category definitions (NDDEQ, 2020e). None of the Class III streams are specifically identified in the Stream Classifications Table located in Appendix I of the NDDEQ Standards of Quality for Waters of the State and are classified as Class III as a default based on specifications included in that appendix.
[d]	Based on field surveys, National Hydrography Dataset designations, and/or aerial photography interpretation for unmapped streams: PN = Perennial E = Ephemeral NA = Not applicable (USACE, 2012).
[e]	Approximate width based on field surveys and/or estimated from aerial photography. Where National Hydrography Dataset data have been used to supplement areas where surveys are not complete an assumed less than 10-feet-wide has been used for all intermittent National Hydrography Dataset features.
[f]	Refer to Resource Report 1, section 1.3.2.1, for detailed descriptions of each crossing method.

TABLE 2.3-1

Wahpeton Expansion Project
Revised Wetland Types Crossed by the Project [a]

NWI Classification [b]	Approximate Crossing Length (feet) [c]	Acreage Affected During Construction (acres) [d]	Acreage Affected During Operation
PEM	4,539	8.57	<0.01[e]
PFO	178	0.36	<0.10[f]
Project TOTAL	**4,717**	**8.93**	**<0.10**

[a] Wetland crossings are based on WBI Energy's field survey data as of the end of the 2021 field season.

[b] Types listed are those occurring within the 75-foot-wide construction corridor based on Cowardin classifications.
PEM = Palustrine emergent; may be temporarily, seasonally, or semi-permanently flooded
PSS = Palustrine scrub shrub
PFO = Palustrine forested

[c] The length of the centerline crossing was calculated from field-delineated or NWI polygons, rounded to the nearest foot, and summed for each type. Values are rounded to the nearest tenth of an acre.

[d] Based on the construction corridor and additional workspace areas associated with the construction corridor.

[e] All palustrine emergent wetlands crossed by the Project will be restored to their original contour and re-seeded with a native emergent seed mix after construction; therefore, no permanent impacts will occur for the palustrine emergent wetlands crossed by the Project.

[f] Woody vegetation will likely be permanently removed in the forested wetlands identified within the 10-foot-wide permanent easement along the pipeline route. The vegetation removal will constitute a wetland conversion from palustrine forested to palustrine emergent and, therefore, is considered an operational impact.

APPENDIX 2E
Wahpeton Expansion Project
Revised Wetlands Crossed or Otherwise Affected by the Project [a, b]

Wetland ID	Cowardin Classification	Milepost	Centerline Distance Crossed (feet)	Construction Impact (acres)	Operation Impact [c] (acres)	Proposed Crossing Method
PIPELINE FACILITIES						
wcaa002e	PEM	4.9	54.1	0.09	0.00	Guided Bore
wcaa010e	PEM	5.1	11.6	0.01	0.00	Guided Bore
wcaa011e	PEM	5.2	10.5	0.01	0.00	Guided Bore
wcaa003e	PEM	5.9	32.0	0.04	0.00	Guided Bore
wcaa004e	PEM	6.0	24.0	0.04	0.00	Guided Bore
wcaa001e	PEM	6.6	14.7	0.02	0.00	Open Cut
wcaa005e	PEM	8.9	48.4	0.08	0.00	Guided Bore
wcaa006e	PEM	10.0	88.4	0.11	0.0	Open Cut
wcab001e	PEM	13.7	0.0	<0.01	0.00	Open Cut
wcab003e	PEM	13.7	0.0	0.07	0.00	Guided Bore
wcab002e	PEM	13.9	0.0	<0.01	0.00	Guided Bore
wcae006e	PEM	14.7	58.6	0.06		
wcab004e	PEM	14.7	21.5	0.06	0.00	Guided Bore
wcab005e	PEM	15.7	12.0	0.02	0.00	Guided Bore
wcab008e	PEM	18.8	29.1	0.05	0.00	Guided Bore
wrie009e	PEM	27.6	9.4	0.02	0.00	Open Cut
wria002e	PEM	28.3	17.2	0.05	0.00	Guided Bore
wria003e	PEM	31.3	11.4	0.05	0.00	Open Cut
wria004e	PEM	31.4	14.6	0.02	0.0	Guided Bore
wrib001e	PEM	32.1	164.8	0.31	0.00	Open Cut
wrae002e	PEM	32.6	0.0	0.14	0.00	Open Cut
wrib003e	PEM	32.6	385.6	0.62	0.00	Open Cut
wrib005e	PEM	32.9	88.1	0.13	0.00	Open Cut
wrib006e	PEM	33.2	38.2	0.06	0.00	Open Cut
wrib007e	PEM	33.5	376.9	0.88	0.00	Open Cut
wrib013e	PEM	34.1	103.3	0.21	0.00	Open Cut
wrib014f	PFO	34.2	178.3	0.25	<0.10[d]	Open Cut
wrib014e	PEM	34.3	214.7	0.38	0.00	Open Cut
wrib021e	PEM	34.5	821.3	1.62	0.00	Open Cut
wrib015e	PEM	35.6	14.4	0.02	0.00	Guided Bore
wrib016e	PEM	35.6	22.7	0.04	0.00	Guided Bore
wrib017e	PEM	35.7	368.0	0.67	0.00	Guided Bore
wrib018e	PEM	35.8	245.1	0.36	0.00	Open Cut
wrib020f	PFO	36.0	0.0	0.10	<0.10[d]	Open Cut
wrib020e	PEM	36.0	96.3	0.09	0.00	Open Cut
wrib019e	PEM	36.0	586.2	1.18	0.00	Guided Bore
wria006e	PEM	36.3	463.4	0.81	0.00	Open Cut
wria005e	PEM	37.8	12.4	0.02	0.00	Open Cut
wria009e	PEM	42.4	10.8	0.02	0.00	Guided Bore
wria008e	PEM	42.4	15.7	0.03	0.00	Guided Bore
wrid004e	PEM	51.9	23.3	0.04	0.00	Guided Bore
wrie010e	PEM	55.8	30.7	0.05	0.00	Open Cut

APPENDIX 2E

Wahpeton Expansion Project

Revised Wetlands Crossed or Otherwise Affected by the Project [a, b]

Wetland ID	Cowardin Classification	Milepost	Centerline Distance Crossed (feet)	Construction Impact (acres)	Operation Impact [c] (acres)	Proposed Crossing Method
wrie008e	PEM	60.2	0.0	0.09	0.00	Open Cut
	SUBTOTAL			**6.25**	**<0.10**	
ACCESS ROADS						
wcaa009e (TAR 005)	PEM	5.1	NA	0.11	0.00	NA
wcae008e (TAR 012)	PEM	8.8	NA	<0.01	0.00	NA
wcaa007e (TAR 013)	PEM	9.9	NA	0.02	0.00	NA
wcab003e (TAR 018)	PEM	13.7	NA	0.01	0.00	NA
wcab004e (TAR 019)	PEM	14.7	NA	0.01	0.00	NA
wcae003e (TAR 020)	PEM	16.2	NA	<0.01	0.00	NA
wcae004e (TAR 024.1)	PEM	20.1	NA	<0.01	0.00	NA
wria003e (PAR 034)	PEM	31.3	NA	<0.01	<0.01	NA
wrib021e (TAR 038)	PEM	34.5	NA	0.26	0.00	NA
wcae005e (TAR 046)	PEM	43.4	NA	<0.01	0.00	NA
wria010e (TAR 046)	PEM	43.4	NA	<0.01	0.00	NA
wria014e (TAR 046.1)	PEM	44.2	NA	<0.01	0.00	NA
wrae006e (TAR 047)	PEM	44.9	NA	<0.01	0.00	NA
wrae007e (TAR 048)	PEM	45.0	NA	<0.01	0.00	NA
wrid001e (TAR 049)	PEM	46.3	NA	<0.01	0.00	NA
wrid003e (TAR 051)	PEM	47.3	NA	<0.01	0.00	NA
	SUBTOTAL			**0.48**	**<0.01**	
ABOVEGROUND FACILITIES						
WHAPETON BORDER STATION						
DSK_WL_03	PEM	NA	NA	0.13	0.00	NA
PIPE YARDS						
COMSTOCK YARD						
Wrib026e	PEM	NA	NA	0.04	0.00	NA
KOST YARD						
Wcab010e	PEM	NA	NA	1.65	0.00	NA
	SUBTOTAL			**1.82**	**<0.10**	
	TOTAL			**8.51**	**<0.10**	

[a] The numbers in this table have been rounded for presentation purposes. As a result, the subtotals and totals may not reflect the exact sum of the addends in all cases.

[b] NA = not applicable
PEM = Palustrine emergent wetland
PFO = Palustrine forested wetland
PSS = Palustrine scrub shrub wetland

[c] All PEM wetlands, with the exception of wria003e, will be restored to their herbaceous state.

[d] Permanent woody vegetation removal in PFO will occur in the 10-foot wide permanent pipeline easement. The permanent removal of woody vegetation will constitute a wetland conversion of PFO to PEM wetland.

TABLE 2.2-1

Wahpeton Expansion Project
Revised HUC-12 Watersheds Crossed by the Project

HUC-12#	Name	MP In	MP Out
090202050704	Outlet Maple River	0.0	2.6
090202050603	City of Fife	2.6	7.2
090202050602	City of Mapleton	7.6	8.2
090202040605	City of Warren	8.2	18.8
090202040604	City of Norman- Sheyenne River	18.8	24.8
090201051005	Town of Walcott	24.8	36.0
090201051004	South Pleasant Cemetery- Wild Rice River	36.0	41.0
090201051003	Town of Colfax-Wild Rice River	41.0	43.3
090201051002	Pitcairn Creek	43.3	45.4
090201051001	090201051001-Wild Rice River	45.4	50.4
090201050906	Town of Glachutt	50.4	50.4
090201050907	Outlet Antelope Creek	50.4	51.0
090201050805	Calvary Cemetery-Wild Rice River	51.0	52.0
090201040401	County Ditch No. 1-Red River	52.0	60.2
090202050601	City of Kindred	Kindred Border Station	
090201010507	Bois de Sioux River	Comstock Contractor Yard	

TABLE 3.5-1

Wahpeton Expansion Project
Forested Areas Crossed by the Project Area

Forested Land/County	Land Designation	MP		Feet Crossed
		Entry	Exit	
Cass				
	Mixed Forest	24.1	24.1	167.4
	Mixed Forest	24.1	24.1	83.0
Richland				
	Forested Wetland (Surveyed)	34.2	34.3	178.3
	Mixed Forest	36.8	36.8	111.1
	Deciduous Forest	41.3	41.3	98.7
	Woody Wetlands	50.8	50.8	107.8
	Woody Wetlands	50.9	50.9	231.5
	Deciduous Forest	50.9	50.9	98.2
	Woody Wetlands	51.1	51.1	231.6
	Woody Wetlands	51.1	51.2	97.1
	Woody Wetlands	51.2	51.3	579.9
	Woody Wetlands	51.3	51.4	323.3

Source: Dewitz, 2021.

TABLE 3.5-2

Wahpeton Expansion Project
Revised Vegetation Types Affected by Construction and Operation of the Project (acres) [a, b]

	Agricultural Land [c]		Open Land (Non-Native Grassland) [d]		Forested Land [e]		Total	
Facility Workspace	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**
Pipeline Facilities								
Wahpeton Expansion Pipeline	515.8	345.0	16.3	11.4	1.0	0.9	533.1	357.3
Subtotal	**515.8**	**345.0**	**16.3**	**11.4**	**1.0**	**0.9**	**533.1**	**357.3**
ATWS	111.3	0.0	1.9	0.0	0.1	0.0	113.3	0.0
Subtotal	**111.3**	**0.0**	**1.9**	**0.0**	**0.1**	**0.0**	**113.3**	**0.0**
Aboveground Facilities								
MDU—Kindred Border Station	1.7	1.7	0.0	0.0	0.0	0.0	1.7	1.7
MD—Wahpeton Border Station	1.7	1.7	0.0	0.0	0.0	0.0	1.7	1.7
Mapleton Compressor Station	2.8	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Subtotal	**6.2**	**3.4**	**0.0**	**0.0**	**0.0**	**0.0**	**6.2**	**3.4**
Contractor Yards								
Kost Yard	19.1	0.0	1.6	0.0	0.0	0.0	20.7	0.0
Kindred Yard	3.5	0.0	0.3	0.0	0.2	0.0	4.0	0.0
Comstock North Yard	20.7	0.0	0.0	0.0	0.0	0.0	20.7	0.0
Comstock South Yard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wahpeton City Yard	28.1	0.0	0.0	0.0	0.0	0.0	28.1	0.0
Subtotal	**71.4**	**0.0**	**1.9**	**0.0**	**0.2**	**0.0**	**73.6**	**0.0**
Access Roads								
Access Roads	15.0	1.3	0.6	0.0	0.3	0.0	16.0	1.3
Subtotal	**15.0**	**1.3**	**0.6**	**0.0**	**0.3**	**0.0**	**16.0**	**1.3**
Valve Site [e]								
Valve Site #2	0.7	0.1	0.0	0.0	0.0	0.0	0.7	0.1
Valve Site #4	0.4	0.1	0.0	0.0	0.0	0.0	0.4	0.1
Valve Site #5	0.7	0.1	0.0	0.0	0.0	0.0	0.7	0.1
Valve Site #6	0.4	0.1	0.0	0.0	0.0	0.0	0.4	0.1
Subtotal	**2.2**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**2.2**	**0.4**
Project Total	**721.9**	**350.0**	**20.9**	**11.4**	**1.7**	**0.9**	**744.4**	**362.3**

TABLE 3.5-2

Wahpeton Expansion Project
Revised Vegetation Types Affected by Construction and Operation of the Project (acres) [a, b]

Facility Workspace	Agricultural Land [c]		Open Land (Non-Native Grassland) [d]		Forested Land [e]		Total	
	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.

[a] The subtotals and totals in this table may not reflect the sum of the addends due to rounding.
[b] This table does not include vegetation types for developed land or open water as there is no vegetation within these areas. This results in the totals in this table not matching other resource reports.
[c] Includes cultivated crops, hayfields, and pastureland.
[d] Includes herbaceous land, scrub/shrub, and non-forested wetlands.
[e] Includes deciduous and mixed forestland (hedgerows, upland wooded areas, and deciduous forests).
[f] Block valve setting #1 will be constructed and operated within the Mapleton Compressor Station site. Valve Settings #3 and #7 will be constructed and operated within the construction and operational footprints of the MDU—Kindred Border Station and the MDU—Wahpeton Border Station. The construction and operational acreages for these valve settings are included within the acreages for the Mapleton Compressor Station, the MDU—Kindred Border Station, and the MDU—Wahpeton Border Station. A pig launcher/receiver will be collocated at Valve Sites #1, #2, #5, and #7.

Const. = construction; Oper. = operational

TABLE 6.4-1

Wahpeton Expansion Project
Revised Summary of Slopes Crossed by the Proposed Pipeline Route [a]

	Slope (percent)	Crossing Length (feet)	Crossing Length (miles)
Mapleton-Wahpeton	0 to 2	310,634	58.8
	2 to 5	5,200	1.0
	5 to 10	1,550	0.3
	10 to 20 [b]	225	0.04
	20 to 40 [c]	25	<0.01
	40+	0	0

[a] Sourced from USGS, 2013.

[b] The Project crosses slopes between 15 and 20 percent at MPs 18.77, 18.78, and 24.15. Each of these locations is a crossing of under 50 feet and, therefore, single MP locations are identified instead of ranges.

[c] The Project crosses a maximum slope of 35.3 percent at approximate MP 24.14. This is a crossing of less than 50 feet and, therefore, a single MP location is identified instead of ranges.

Appendix 6C

Wahpeton Expansion Project

Revised Summary of Guided Bore Locations

Milepost	Feature Crossed	Length (feet)	Min Depth (feet)	ATWS setbacks from Wetlands/Waterbodies (west or north bank/east or south bank)	Hours per Day of Drilling	Days of Drilling	Geologic Formation / Deposit Type [1]	Map Unit	Site-Specific Plan (Yes/No)	Water Needed for Drilling Fluid (gal)	Water Needed for Hydrostatic Testing (gal)
0.74	35th St SE	193	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	12,610	1,408
1.23	Maple River	750	28’	316 feet / 255 feet	24	4 to 6	Oahe / River Sediment	Qor	Y	49,003	5,472
1.55	163rd Ave SE	231	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	15,093	1,685
2.67	164th Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
3.67	165th Ave SE	134	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	8,755	978
3.85	Drainage Ditch	400	10’	46 feet / 86 feet	12	2 to 4	Oahe / River Sediment	Qor	Y	26,135	2,918
4.90	36th St SE[a]	388	13’	133 feet / 130 feet	12	2 to 3	Oahe / River Sediment	Qor	Y	25,351	2,831
5.14	BNSF Railroad[a]	461	17’	150 feet / 134 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	30,121	3,363
5.44	Driveway	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
5.94	Interstate 94[a]	766	15	350 feet / 60 feet	24	4 to 6	Oahe / River Sediment	Qor	Y	50,048	5,589
6.48	165th Ave SE	200	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	13,067	1,459
6.64	Drainage Ditch	450	12’	133 feet / 157 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	29,402	3,282
7.19	38th St SE	179	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	11,695	1.306
8.19	39th St SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
8.36	165th Ave SE	160	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	10,454	1,167
9.24	40th St SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
10.03	Wetland	322	10’	53 feet / 66 feet	12	2 to 3	Oahe / River Sediment	Qor	Y	21,039	2,349
10.61	41st St SE[b]	225	6’	72 feet / 63 feet	12	2 to 3	Oahe / River Sediment	Qor	N	14,701	1,642
11.67	42nd Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
12.15	166th Ave SE	156	6’	N/A	12	2 to 3	Coleharbor / Proglacial Lake	Qcof	N	10,193	1,138
12.67	43rd St SE	96	6’	N/A	12	1 to 2	Coleharbor / Proglacial Lake	Qcof	N	6,272	700
13.68	44th St SE[a]	245	6’	8 feet / 8 feet	12	2 to 3	Coleharbor / Proglacial Lake	Qcof	N	16,008	1,787
14.70	45th St SE[a]	320	6’	9 feet / 8 feet	12	2 to 3	Coleharbor / Proglacial Lake	Qcof	N	20,908	2.335

Appendix 6C

Wahpeton Expansion Project

Revised Summary of Guided Bore Locations

Milepost	Feature Crossed	Length (feet)	Min Depth (feet)	ATWS setbacks from Wetlands/Waterbodies (west or north bank/east or south bank)	Hours per Day of Drilling	Days of Drilling	Geologic Formation / Deposit Type [1]	Map Unit	Site-Specific Plan (Yes/No)	Water Needed for Drilling Fluid (gal)	Water Needed for Hydrostatic Testing (gal)
15.73	46th St SE[a]	120	6’	21 feet / 5 feet	12	2 to 3	Coleharbor / Proglacial Lake	Qcof	N	7,840	875
16.71	Red River RR/ 47th St SE[c]	381	12’	N/A	12	3 to 4	Oahe / River Sediment	Qor	Y	24,894	2,780
17.74	48th St SE	180	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	11,761	1,313
18.75	49th St SE/Wetland[a]	350	10’	102feet / 50 feet	12	2 to 3	Oahe / River Sediment	Qor	Y	22,868	2,554
19.75	50th St SE[b]	294	6’	18 feet / 119 feet	12	2 to 3	Oahe / River Sediment	Qor	N	19,209	2,145
20.82	51st St SE	162	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	10,585	1,182
21.82	52nd St SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
23.33	53rd St SE	143	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	9,343	1,043
24.15	Sheyenne River	750	26’	235 feet / 310 feet	24	4 to 6	Oahe / River Sediment	Qor	Y	49,003	5,472
24.72	County Rd 46	230	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	15,028	1,678
26.64	County Rd 26	104	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	6,795	759
27.65	167th Ave SE[a]	123	6’	16 feet / 70 feet	12	2 to 3	Oahe / River Sediment	Qor	N	8,036	897
28.30	55th St SE[a]	300	11’	58 feet / 104 feet	12	2 to 3	Oahe / River Sediment	Qor	Y	19,601	2,189
29.30	56th St SE[b]	96	6’	50 feet / 6 feet	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
30.32	57th St SE	128	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	8,363	934
31.36	58th St SE[a]	413	10’	48 feet / 160 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	26,984	3,013
32.37	59th St SE	111	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	7,252	810
33.43	County Rd 2[a]	180	6’	12 feet / 114 feet	12	2 to 3	Oahe / Wind Blown Sediment	QTou	N	11,761	1,313
34.52	61st St SE/Tree Row	200	6’	400 feet / 0 feet	12	2 to 3	Oahe / Wind Blown Sediment	QTou		13,067	1,459
35.63	62nd St SE[a]	111	6’	53 feet / 35 feet	12	2 to 3	Oahe / Wind Blown Sediment	QTou	N	7,252	810
36.14	168th Ave SE[a]	263	6’	0 feet / 106 feet	12	2 to 3	Oahe / Wind Blown Sediment	QTou	N	17,184	1,919

Appendix 6C

Wahpeton Expansion Project

Revised Summary of Guided Bore Locations

Milepost	Feature Crossed	Length (feet)	Min Depth (feet)	ATWS setbacks from Wetlands/Waterbodies (west or north bank/east or south bank)	Hours per Day of Drilling	Days of Drilling	Geologic Formation / Deposit Type [1]	Map Unit	Site-Specific Plan (Yes/No)	Water Needed for Drilling Fluid (gal)	Water Needed for Hydrostatic Testing (gal)
36.76	63rd St SE	108	6’	N/A	12	2 to 3	Oahe / Wind Blown Sediment	QTou	N	7,056	788
37.54	County Rd 1	130	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	8,494	948
38.54	170th Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
39.87	Irrigation Drainage Unit /Ephemeral Stream	400	11’	190 feet / 200 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	26,135	2,918
40.47	171st Ave SE	111	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	7,252	810
40.97	Interstate 29	500	20’	N/A	24	3 to 5	Oahe / River Sediment	Qor	Y	32,669	3,648
41.03	64th St SE/Unnamed tributary to Wild Rice River[b]	400	11’	5 feet / 53 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	26,135	2,918
41.26	Tree row	200	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	19,601	2,189
42.40	County Rd[a] 4	130	6’	5 feet / 3 feet	12	2 to 3	Oahe / River Sediment	Qor	N	8,494	948
44.41	67th St SE	217	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	14,178	1,583
44.95	Pitcairn Creek	413	10’	68 feet / 93 feet	12	3 to 5	Oahe / River Sediment	Qor	Y	26,984	3,013
45.42	County Rd 6	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
46.42	69th St SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
47.97	Private Driveway	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
48.35	70th St SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
48.89	173rd Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
49.89	174th Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
51.10	Antelope/Wild Rice River #1-3	2,879	29’ Antelope River & 26-31’ Wild Rice River #1	125 feet / 275 feet	24	8 to 12	Oahe / River Sediment	Qor	Y	188,106	21,005

Appendix 6C

Wahpeton Expansion Project

Revised Summary of Guided Bore Locations

Milepost	Feature Crossed	Length (feet)	Min Depth (feet)	ATWS setbacks from Wetlands/Waterbodies (west or north bank/east or south bank)	Hours per Day of Drilling	Days of Drilling	Geologic Formation / Deposit Type [1]	Map Unit	Site-Specific Plan (Yes/No)	Water Needed for Drilling Fluid (gal)	Water Needed for Hydrostatic Testing (gal)
51.93	County Rd 81[a]	242	6’	144 feet / 30 feet	12	2 to 3	Coleharbor / Proglacial Lake	Qcof	N	15,812	1,766
52.93	177thAve SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
54.40	71st St SE	130	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	8,494	948
55.15	178th Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
56.16	179th Ave SE	96	6’	N/A	12	1 to 2	Oahe / River Sediment	Qor	N	6,272	700
56.41	No Feature	200	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	13,067	1,459
56.80	72nd St SE	234	6’	N/A	12	2 to 3	Oahe / River Sediment	Qor	N	15,289	1,707
57.79	73rd St SE[b]	96	6’	56 feet / 5 feet	12	1 to 2	Coleharbor / Glacial	Qcew	N	6,272	700
59.25	74th St SE	96	6’	N/A	12	1 to 2	Coleharbor / Glacial	Qcew	N	6,272	700
60.11	180th Ave SE[a]	257	6’	0 feet / 0 feet	12	2 to 3	Coleharbor / Glacial	Qcew	N	16,792	1,875

[a] This guided bore also crosses one or more wetlands.

[b] This guided bore also crosses a waterbody.

[c] The bore at the Red River Railroad has been extended to include 47th Street. The water for the 47th Street bore is included in the Red River bore numbers.

Notes

[1] North Dakota Geological Survey (2021b)

TABLE 7.3-1

Wahpeton Expansion Project
Revised Acres of Soil Characteristics Affected by the Proposed Project [a]

Facility	Total Acres	Prime Farmland [b]	Hydric [b]	Compaction Prone [c]	Highly Erodible		Revegetation Concerns [f]	Rocky [g]	Shallow Bedrock [h]
					Water [d]	Wind [e]			
Pipeline Right-of-Way									
Permanent Easement	363.6	271.5	229.6	331.6	16.4	8.6	6.9	0.0	0.0
Temporary Workspace	178.6	133.6	113.8	164.4	7.7	4.3	3.0	0.0	0.0
Subtotal	542.2	405.1	343.5	496.0	24.1	12.9	9.9	0.0	0.0
Additional Temporary Workspace	**116.2**	**80.5**	**70.7**	**105.9**	**4.3**	**2.1**	**1.5**	**0.0**	**0.0**
Contractor Yards									
Temporary Workspace									
Kost Yard	34.2	34.2	34.2	34.2	0.0	0.0	0.0	0.0	0.0
Kindred Yard	4.1	1.2	4.1	4.1	0.0	0.0	0.0	0.0	0.0
Comstock North Yard	21.0	17.6	21.0	21.0	0.0	0.0	0.0	0.0	0.0
Wahpeton City Yard	28.5	28.5	0.0	28.5	0.0	0.0	0.0	0.0	0.0
Comstock South Yard	4.7	0.0	1.7	1.7	0.0	0.0	0.0	0.0	0.0
Subtotal	**92.5**	**81.4**	**60.9**	**89.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Access Roads									
Permanent Access Roads	3.2	0.7	2.6	3.0	0.0	0.0	0.0	0.0	0.0
Temporary Access Roads	20.5	13.6	8.5	15.8	0.3	1.3	0.8	0.0	0.0
Subtotal	**23.6**	**14.3**	**11.1**	**18.8**	**0.3**	**1.3**	**0.8**	**0.0**	**0.0**
Aboveground Facilities									
Permanent Workspace									
Mapleton Compressor Station	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MDU—Kindred Border Station	1.7	0.4	1.7	1.7	0.0	0.0	0.0	0.0	0.0
MDU—Wahpeton Border Station	1.7	1.7	0.3	1.7	0.0	0.0	0.0	0.0	0.0
Valve Site #1 [i]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valve Site #2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Valve Site #3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valve Site #4	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Valve Site #5	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Valve Site #6	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Valve Site #7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pig launchers/receivers [j]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Temporary Workspace									

TABLE 7.3-1

Wahpeton Expansion Project
Revised Acres of Soil Characteristics Affected by the Proposed Project [a]

Facility	Total Acres	Prime Farmland [b]	Hydric [b]	Compaction Prone [c]	Highly Erodible		Revegetation Concerns [f]	Rocky [g]	Shallow Bedrock [h]
					Water [d]	Wind [e]			
Mapleton Compressor Station	2.9	2.9	2.8	2.8	0.0	0.0	0.0	0.0	0.0
MDU—Kindred Border Station	2.5	1.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
MDU—Wahpeton Border Station	2.4	2.4	0.5	2.4	0.0	0.0	0.0	0.0	0.0
Valve Site #1 [i]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valve Site #2	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0
Valve Site #3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valve Site #4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
Valve Site #5	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Valve Site #6	0.3	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0
Valve Site #7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pig launchers/receivers [j]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	**13.8**	**10.0**	**9.1**	**13.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Total	**783.3**	**587.8**	**492.3**	**718.8**	**28.7**	**16.3**	**12.2**	**0.0**	**0.0**

Source: Soil Survey Staff, 2020a; 2020b.

[a] The area affected includes all permanent and temporary workspace (including additional temporary workspace). The numbers in this table have been rounded for presentation purposes. As a result, the totals may not reflect the sum of the addends. The values in each row may not add up to the total acreage for each facility because the soils may occur in more than one characteristic class or may not occur in any class listed in the table.

[b] As designated by the NRCS. Prime farmland includes those soils that are considered prime if a limiting factor is mitigated (e.g., through artificial drainage) and soils designated as farmland of statewide importance. Hydric soils are soils in poor to very poor drainage classes.

[c] Soils in somewhat poor to very poor drainage classes with surface textures of sandy clay loam and finer.

[d] Soils in land capability subclasses 4E through 8E and soils with an average slope greater than 8 percent.

[e] Soils with a Wind Erodibility Group (WEG) classification of 1 or 2.

[f] Soils with a surface texture of sandy loam or coarser that are moderately well to excessively drained and soils with an average slope greater than 8 percent.

[g] Soils with one or more horizons that have a cobbley, stony, bouldery, channery, flaggy, very gravelly, or extremely gravelly modifier to the textural class and/or contain greater than 5 percent by weight rocks larger than 3 inches.

[h] Soils identified as containing bedrock within 60 inches of the soil surface.

[I] Valve #1 will be constructed and operated within the Mapleton Compressor Station fence line. Valves #3 and #7 will be constructed and operated within the construction and operational footprints of the MDU—Kindred Border Station and the MDU—Wahpeton Border Station, respectively. Soil resource impacts for Valves #1, # 3, and # 7 are accounted for in the soil resource impacts for the compressor station modification and MDU Border Stations.

[j] The four pig launcher/receiver settings will be collocated with Valves #1, #2, #5, and #7; therefore, soil resource impacts for the pig launchers/receivers are accounted for in the soil resource impacts for the four valve sites or other aboveground facilities (i.e., the compressor station modifications and the MDU—Wahpeton Border Station).

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
Cass County														
0.00	0.09	I233A	100%	Fargo	0.82	0.82	0.00	0.82	0.82	0.00	0.00	0.00	0.00	0.00
0.09	0.12	I238A	41%	Hegne	0.10	0.10	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.14	0.14	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00
0.12	0.31	I233A	100%	Fargo	1.74	1.74	0.00	1.74	1.74	0.00	0.00	0.00	0.00	0.00
0.31	0.64	I235A	100%	Fargo	3.04	3.04	0.00	3.04	3.04	0.00	0.00	0.00	0.00	0.00
0.64	0.96	I233A	100%	Fargo	2.85	2.85	0.00	2.85	2.85	0.00	0.00	0.00	0.00	0.00
0.96	1.13	I229A	100%	Fargo	1.57	1.57	0.00	1.57	1.57	0.00	0.00	0.00	0.00	0.00
1.13	1.21	I233A	100%	Fargo	0.73	0.73	0.00	0.73	0.73	0.00	0.00	0.00	0.00	0.00
1.21	1.26	I248A	100%	Wahpeton	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.26	2.12	I229A	100%	Fargo	7.77	7.77	0.00	7.77	7.77	0.00	0.00	0.00	0.00	0.00
2.12	2.28	I473A	38%	Fargo	0.56	0.56	0.00	0.56	0.56	0.00	0.00	0.00	0.00	0.00
			63%	Hegne	0.93	0.93	0.00	0.93	0.93	0.00	0.00	0.00	0.00	0.00
2.28	2.35	I229A	100%	Fargo	0.62	0.62	0.00	0.62	0.62	0.00	0.00	0.00	0.00	0.00
2.35	2.44	I235A	100%	Fargo	0.82	0.82	0.00	0.82	0.82	0.00	0.00	0.00	0.00	0.00
2.44	2.55	I229A	100%	Fargo	1.03	1.03	0.00	1.03	1.03	0.00	0.00	0.00	0.00	0.00
2.55	2.63	I235A	100%	Fargo	0.74	0.74	0.00	0.74	0.74	0.00	0.00	0.00	0.00	0.00
2.63	2.72	I229A	100%	Fargo	0.73	0.73	0.00	0.73	0.73	0.00	0.00	0.00	0.00	0.00
2.72	2.85	I119A	100%	Bearden	1.20	1.20	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00
2.85	3.13	I238A	41%	Hegne	1.05	1.05	0.00	1.05	1.05	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	1.50	1.50	0.00	1.50	1.50	0.00	0.00	0.00	0.00	0.00
3.13	3.15	I473A	38%	Fargo	0.06	0.06	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00
			63%	Hegne	0.10	0.10	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00
3.15	3.28	I235A	100%	Fargo	1.26	1.26	0.00	1.26	1.26	0.00	0.00	0.00	0.00	0.00
3.28	3.95	I371A	47%	Kindred	2.81	2.81	0.00	0.00	2.81	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	3.21	3.21	0.00	0.00	3.21	0.00	0.00	0.00	0.00	0.00
3.95	4.72	I492A	47%	Lindaas	3.30	3.30	0.00	3.30	3.30	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	3.77	3.77	0.00	0.00	3.77	0.00	0.00	0.00	0.00	0.00
4.72	4.76	I238A	41%	Hegne	0.14	0.14	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.19	0.19	0.00	0.19	0.19	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
4.76	4.86	I492A	47%	Lindaas	0.43	0.43	0.00	0.43	0.43	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.49	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
4.86	4.97	I231A	100%	Dovray	0.96	0.96	0.00	0.96	0.96	0.00	0.00	0.00	0.00	0.00
4.97	5.49	I119A	100%	Bearden	4.77	4.77	0.00	0.00	4.77	0.00	0.00	0.00	0.00	0.00
5.49	5.59	I233A	100%	Fargo	0.88	0.88	0.00	0.88	0.88	0.00	0.00	0.00	0.00	0.00
5.59	5.72	I492A	47%	Lindaas	0.57	0.57	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.65	0.65	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
5.72	5.87	I229A	100%	Fargo	1.36	1.36	0.00	1.36	1.36	0.00	0.00	0.00	0.00	0.00
5.87	5.94	I906F	20%	Urban land	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			25%	Aquents	0.16	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.00	0.00
				Orthents	0.16	0.00	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.00
			30%	Orthents	0.19	0.00	0.00	0.00	0.00	0.19	0.00	0.19	0.00	0.00
5.94	6.09	I119A	100%	Bearden	1.37	1.37	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.00
6.09	6.15	I229A	100%	Fargo	0.47	0.47	0.00	0.47	0.47	0.00	0.00	0.00	0.00	0.00
6.15	6.22	I119A	100%	Bearden	0.65	0.65	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
6.22	6.39	I238A	41%	Hegne	0.65	0.65	0.00	0.65	0.65	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.93	0.93	0.00	0.93	0.93	0.00	0.00	0.00	0.00	0.00
6.39	6.58	I229A	100%	Fargo	1.65	1.65	0.00	1.65	1.65	0.00	0.00	0.00	0.00	0.00
6.58	6.63	I238A	41%	Hegne	0.22	0.22	0.00	0.22	0.22	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.32	0.32	0.00	0.32	0.32	0.00	0.00	0.00	0.00	0.00
6.63	6.68	I231A	100%	Dovray	0.41	0.41	0.00	0.41	0.41	0.00	0.00	0.00	0.00	0.00
6.68	7.54	I238A	41%	Hegne	3.22	3.22	0.00	3.22	3.22	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	4.60	4.60	0.00	4.60	4.60	0.00	0.00	0.00	0.00	0.00
7.54	7.93	I229A	100%	Fargo	3.53	3.53	0.00	3.53	3.53	0.00	0.00	0.00	0.00	0.00
7.93	8.79	I238A	41%	Hegne	3.22	3.22	0.00	3.22	3.22	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	4.60	4.60	0.00	4.60	4.60	0.00	0.00	0.00	0.00	0.00
8.79	9.03	I482A	40%	Bearden	0.89	0.89	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00
			60%	Overly	1.34	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9.03	9.59	I229A	100%	Fargo	5.06	5.06	0.00	5.06	5.06	0.00	0.00	0.00	0.00	0.00
9.59	9.94	I233A	100%	Fargo	3.19	3.19	0.00	3.19	3.19	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
9.94	10.01	I482A	40%	Bearden	0.26	0.26	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00
			60%	Overly	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.01	10.05	I231A	100%	Dovray	0.33	0.33	0.00	0.33	0.33	0.00	0.00	0.00	0.00	0.00
10.05	10.10	I482A	40%	Bearden	0.17	0.17	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
			60%	Overly	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.10	10.39	I233A	100%	Fargo	2.71	2.71	0.00	2.71	2.71	0.00	0.00	0.00	0.00	0.00
10.39	11.84	I229A	100%	Fargo	13.15	13.15	0.00	13.15	13.15	0.00	0.00	0.00	0.00	0.00
11.84	12.09	I235A	100%	Fargo	2.30	2.30	0.00	2.30	2.30	0.00	0.00	0.00	0.00	0.00
12.09	12.61	I238A	41%	Hegne	1.94	1.94	0.00	1.94	1.94	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	2.78	2.78	0.00	2.78	2.78	0.00	0.00	0.00	0.00	0.00
12.61	13.05	I229A	100%	Fargo	3.99	3.99	0.00	3.99	3.99	0.00	0.00	0.00	0.00	0.00
13.05	13.14	I238A	41%	Hegne	0.34	0.34	0.00	0.34	0.34	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.49	0.49	0.00	0.49	0.49	0.00	0.00	0.00	0.00	0.00
13.14	14.66	I229A	100%	Fargo	13.77	13.77	0.00	13.77	13.77	0.00	0.00	0.00	0.00	0.00
14.66	14.79	I235A	100%	Fargo	1.14	1.14	0.00	1.14	1.14	0.00	0.00	0.00	0.00	0.00
14.79	15.45	I229A	100%	Fargo	5.95	5.95	0.00	5.95	5.95	0.00	0.00	0.00	0.00	0.00
15.45	15.53	I235A	100%	Fargo	0.70	0.70	0.00	0.70	0.70	0.00	0.00	0.00	0.00	0.00
15.53	15.63	I229A	100%	Fargo	0.92	0.92	0.00	0.92	0.92	0.00	0.00	0.00	0.00	0.00
15.63	15.72	I235A	100%	Fargo	0.87	0.87	0.00	0.87	0.87	0.00	0.00	0.00	0.00	0.00
15.72	17.06	I229A	100%	Fargo	12.15	12.15	0.00	12.15	12.15	0.00	0.00	0.00	0.00	0.00
17.06	17.24	I473A	38%	Fargo	0.63	0.63	0.00	0.63	0.63	0.00	0.00	0.00	0.00	0.00
			63%	Hegne	1.05	1.05	0.00	1.05	1.05	0.00	0.00	0.00	0.00	0.00
17.24	17.55	I373A	38%	Bearden	1.04	1.04	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00
			63%	Kindred	1.73	1.73	0.00	0.00	1.73	0.00	0.00	0.00	0.00	0.00
17.55	17.57	I233A	100%	Fargo	0.20	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00
17.57	18.06	I482A	40%	Bearden	1.79	1.79	0.00	0.00	1.79	0.00	0.00	0.00	0.00	0.00
			60%	Overly	2.69	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.06	18.24	I233A	100%	Fargo	1.60	1.60	0.00	1.60	1.60	0.00	0.00	0.00	0.00	0.00
18.24	18.46	I238A	41%	Hegne	0.84	0.84	0.00	0.84	0.84	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	1.19	1.19	0.00	1.19	1.19	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In [i]	Milepost Out [i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
18.46	18.53	I235A	100%	Fargo	0.66	0.66	0.00	0.66	0.66	0.00	0.00	0.00	0.00	0.00
18.53	18.58	I238A	41%	Hegne	0.17	0.17	0.00	0.17	0.17	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.24	0.24	0.00	0.24	0.24	0.00	0.00	0.00	0.00	0.00
18.58	18.79	I233A	100%	Fargo	1.92	1.92	0.00	1.92	1.92	0.00	0.00	0.00	0.00	0.00
18.79	18.87	I235A	100%	Fargo	0.75	0.75	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00
18.87	19.00	I238A	41%	Hegne	0.45	0.45	0.00	0.45	0.45	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	0.65	0.65	0.00	0.65	0.65	0.00	0.00	0.00	0.00	0.00
19.00	19.08	I235A	100%	Fargo	0.73	0.73	0.00	0.73	0.73	0.00	0.00	0.00	0.00	0.00
19.08	19.30	I238A	41%	Hegne	0.86	0.86	0.00	0.86	0.86	0.00	0.00	0.00	0.00	0.00
			59%	Fargo	1.22	1.22	0.00	1.22	1.22	0.00	0.00	0.00	0.00	0.00
19.30	19.41	I229A	100%	Fargo	0.99	0.99	0.00	0.99	0.99	0.00	0.00	0.00	0.00	0.00
19.41	19.87	I371A	47%	Kindred	1.79	1.79	0.00	0.00	1.79	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	2.05	2.05	0.00	0.00	2.05	0.00	0.00	0.00	0.00	0.00
19.87	19.92	I601A	100%	Bearden	0.41	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00
19.92	20.12	I371A	47%	Kindred	0.83	0.83	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.95	0.95	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00
20.12	20.32	I373A	38%	Bearden	0.69	0.69	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00
			63%	Kindred	1.15	1.15	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
20.32	20.43	I371A	47%	Kindred	0.45	0.45	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.52	0.52	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
20.43	20.58	I373A	38%	Bearden	0.54	0.54	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00
			63%	Kindred	0.89	0.89	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.00
20.58	20.62	I371A	47%	Kindred	0.17	0.17	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.19	0.19	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
20.62	20.89	I601A	100%	Bearden	2.42	0.00	0.00	0.00	2.42	0.00	0.00	0.00	0.00	0.00
20.89	21.06	I371A	47%	Kindred	0.71	0.71	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00
			53%	Bearden	0.81	0.81	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00
21.06	21.10	I233A	100%	Fargo	0.36	0.36	0.00	0.36	0.36	0.00	0.00	0.00	0.00	0.00
21.10	21.19	I601A	100%	Bearden	0.88	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00
21.19	21.27	I473A	38%	Fargo	0.28	0.28	0.00	0.28	0.28	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
			63%	Hegne	0.47	0.47	0.00	0.47	0.47	0.00	0.00	0.00	0.00	0.00
21.27	21.32	I601A	100%	Bearden	0.41	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00
21.32	21.37	I473A	38%	Fargo	0.17	0.17	0.00	0.17	0.17	0.00	0.00	0.00	0.00	0.00
			63%	Hegne	0.28	0.28	0.00	0.28	0.28	0.00	0.00	0.00	0.00	0.00
21.37	21.59	I229A	100%	Fargo	2.02	2.02	0.00	2.02	2.02	0.00	0.00	0.00	0.00	0.00
21.59	21.63	I235A	100%	Fargo	0.32	0.32	0.00	0.32	0.32	0.00	0.00	0.00	0.00	0.00
21.63	22.11	I373A	38%	Bearden	1.65	1.65	0.00	0.00	1.65	0.00	0.00	0.00	0.00	0.00
			63%	Kindred	2.75	2.75	0.00	0.00	2.75	0.00	0.00	0.00	0.00	0.00
22.11	22.50	I482A	40%	Bearden	1.41	1.41	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.00
			60%	Overly	2.12	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	22.82	I373A	38%	Bearden	1.09	1.09	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00
			63%	Kindred	1.82	1.82	0.00	0.00	1.82	0.00	0.00	0.00	0.00	0.00
22.82	22.90	I482A	40%	Bearden	0.28	0.28	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
			60%	Overly	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.90	23.33	I241A	35%	Ryan	1.40	0.00	0.00	1.40	1.40	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.57	0.00	0.00	2.57	2.57	0.00	0.00	0.00	0.00	0.00
23.33	23.36	I229A	100%	Fargo	0.22	0.22	0.00	0.22	0.22	0.00	0.00	0.00	0.00	0.00
23.36	23.80	I241A	35%	Ryan	1.43	0.00	0.00	1.43	1.43	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.62	0.00	0.00	2.62	2.62	0.00	0.00	0.00	0.00	0.00
23.80	23.89	I229A	100%	Fargo	0.77	0.77	0.00	0.77	0.77	0.00	0.00	0.00	0.00	0.00
23.89	23.96	I233A	100%	Fargo	0.64	0.64	0.00	0.64	0.64	0.00	0.00	0.00	0.00	0.00
23.96	24.07	I381A	100%	LaDelle	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.07	24.11	I329A	100%	Fairdale	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.11	24.14	I447B	44%	Fluvaquents	0.13	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Fairdale	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.14	24.15	IWa	100%	Water	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.15	24.17	I447B	44%	Fluvaquents	0.07	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Fairdale	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.17	24.20	I329A	100%	Fairdale	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.20	24.40	I381A	100%	LaDelle	1.77	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In [i]	Milepost Out [i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
24.40	24.48	I480A	100%	Fairdale	0.73	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.48	24.63	I233A	100%	Fargo	1.42	1.42	0.00	1.42	1.42	0.00	0.00	0.00	0.00	0.00
24.63	24.72	I229A	100%	Fargo	0.75	0.75	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00
24.72														
24.81	24.91	I233A	100%	Fargo	0.91	0.91	0.00	0.91	0.91	0.00	0.00	0.00	0.00	0.00
24.91	25.66	I229A	100%	Fargo	6.79	6.79	0.00	6.79	6.79	0.00	0.00	0.00	0.00	0.00
25.66	25.69	I383A	100%	Overly	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.69	27.04	I229A	100%	Fargo	12.21	12.21	0.00	12.21	12.21	0.00	0.00	0.00	0.00	0.00
27.04	27.24	I235A	100%	Fargo	1.81	1.81	0.00	1.81	1.81	0.00	0.00	0.00	0.00	0.00
27.24	30.96	I229A	100%	Fargo	34.04	34.04	0.00	34.04	34.04	0.00	0.00	0.00	0.00	0.00
30.96	31.08	I233A	100%	Fargo	1.15	1.15	0.00	1.15	1.15	0.00	0.00	0.00	0.00	0.00
31.08	31.49	I229A	100%	Fargo	3.75	3.75	0.00	3.75	3.75	0.00	0.00	0.00	0.00	0.00
31.49	31.51	I235A	100%	Fargo	0.18	0.18	0.00	0.18	0.18	0.00	0.00	0.00	0.00	0.00
31.51	31.79	I378A	100%	Bearden	2.55	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00	0.00
31.79	32.11	I383A	100%	Overly	2.89	2.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.11	32.26	I252A	27%	Ryan	0.37	0.00	0.00	0.37	0.37	0.37	0.00	0.00	0.00	0.00
			73%	Aberdeen	1.03	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.00
32.26	32.54	I378A	100%	Bearden	2.64	0.00	0.00	0.00	2.64	0.00	0.00	0.00	0.00	0.00
32.54	32.58	I252A	27%	Ryan	0.10	0.00	0.00	0.10	0.10	0.10	0.00	0.00	0.00	0.00
			73%	Aberdeen	0.29	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00
32.58	32.59	I383A	100%	Overly	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.59	32.73	I252A	27%	Ryan	0.29	0.00	0.00	0.29	0.29	0.29	0.00	0.00	0.00	0.00
			73%	Aberdeen	0.80	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00
32.73	32.74	I383A	100%	Overly	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.74	32.92	I283A	38%	Espelie	0.61	0.00	0.00	0.61	0.00	0.00	0.61	0.00	0.00	0.00
			63%	Hilaire	1.02	0.00	0.00	0.00	0.00	0.00	1.02	1.02	0.00	0.00
32.92	32.97	I246A	38%	Wheatville	0.18	0.18	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
			63%	Galchutt	0.31	0.31	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00
32.97	33.02	I375A	100%	Perella	0.41	0.41	0.00	0.41	0.41	0.00	0.00	0.00	0.00	0.00
33.02	33.24	I246A	38%	Wheatville	0.76	0.76	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
			63%	Galchutt	1.26	1.26	0.00	0.00	1.26	0.00	0.00	0.00	0.00	0.00
33.24	33.64	I235A	100%	Fargo	3.62	3.62	0.00	3.62	3.62	0.00	0.00	0.00	0.00	0.00
33.64	33.96	I249A	100%	Aberdeen	2.94	0.00	2.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.96	34.14	I229A	100%	Fargo	1.66	1.66	0.00	1.66	1.66	0.00	0.00	0.00	0.00	0.00
34.14	34.23	I291C	24%	Serden	0.18	0.00	0.00	0.00	0.00	0.18	0.18	0.18	0.00	0.00
			29%	Thiefriver	0.22	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
			47%	Aylmer	0.35	0.00	0.00	0.00	0.00	0.35	0.35	0.35	0.00	0.00
34.23	34.32	I272A	100%	Thiefriver	0.84	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
34.32	34.43	I249A	100%	Aberdeen	0.99	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.43	34.45	I219A	100%	Tiffany	0.21	0.21	0.00	0.21	0.21	0.00	0.00	0.00	0.00	0.00
34.45	34.75	I283A	38%	Espelie	1.02	0.00	0.00	1.02	0.00	0.00	1.02	0.00	0.00	0.00
			63%	Hilaire	1.70	0.00	0.00	0.00	0.00	0.00	1.70	1.70	0.00	0.00
34.75	35.06	I291B	38%	Bantry	1.05	0.00	0.00	0.00	0.00	1.05	1.05	0.00	0.00	0.00
			63%	Aylmer	1.75	0.00	0.00	0.00	0.00	1.75	1.75	1.75	0.00	0.00
35.06	35.08	I284A	17%	Thiefriver	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
			33%	Espelie	0.08	0.00	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.00
			50%	Hilaire	0.12	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00
35.08	35.28	I272A	100%	Thiefriver	1.77	0.00	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.00
35.28	35.41	I285B	25%	Espelie	0.29	0.00	0.00	0.29	0.00	0.00	0.29	0.00	0.00	0.00
			38%	Hilaire	0.44	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.00	0.00
				Maddock	0.44	0.00	0.00	0.00	0.00	0.44	0.44	0.44	0.00	0.00
35.41	35.48	I272A	100%	Thiefriver	0.69	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
35.48	35.58	I285B	25%	Espelie	0.23	0.00	0.00	0.23	0.00	0.00	0.23	0.00	0.00	0.00
			38%	Hilaire	0.34	0.00	0.00	0.00	0.00	0.00	0.34	0.34	0.00	0.00
				Maddock	0.34	0.00	0.00	0.00	0.00	0.34	0.34	0.34	0.00	0.00
35.58	35.74	I272A	100%	Thiefriver	1.43	0.00	0.00	1.43	0.00	0.00	0.00	0.00	0.00	0.00
35.74	36.03	I285B	25%	Espelie	0.65	0.00	0.00	0.65	0.00	0.00	0.65	0.00	0.00	0.00
			38%	Hilaire	0.97	0.00	0.00	0.00	0.00	0.00	0.97	0.97	0.00	0.00
				Maddock	0.97	0.00	0.00	0.00	0.00	0.97	0.97	0.97	0.00	0.00
36.03	36.19	I374A	100%	Perella	1.46	1.46	0.00	1.46	1.46	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In [i]	Milepost Out [i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
36.19	36.64	I279A	28%	Elmville	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			36%	Delamere	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			37%	Mantador	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.64	36.70	I374A	100%	Perella	0.57	0.57	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00
36.70	36.71	I280A	100%	Wheatville	0.05	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
36.71	36.78	I374A	100%	Perella	0.68	0.68	0.00	0.68	0.68	0.00	0.00	0.00	0.00	0.00
36.78	36.83	I285B	25%	Espelie	0.10	0.00	0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00
			38%	Hilaire	0.15	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.00	0.00
				Maddock	0.15	0.00	0.00	0.00	0.00	0.15	0.15	0.15	0.00	0.00
36.83	36.89	I374A	100%	Perella	0.53	0.53	0.00	0.53	0.53	0.00	0.00	0.00	0.00	0.00
36.89	37.10	I280A	100%	Wheatville	1.94	0.00	0.00	0.00	1.94	0.00	0.00	0.00	0.00	0.00
37.10	37.18	I279A	28%	Elmville	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			36%	Delamere	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			37%	Mantador	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.18	37.57	I244A	100%	Galchutt	3.56	3.56	0.00	0.00	3.56	0.00	0.00	0.00	0.00	0.00
37.57	37.61	I281A	25%	Delamere	0.09	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
			31%	Mantador	0.11	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
			44%	Wheatville	0.15	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
37.61	37.70	I246A	38%	Wheatville	0.28	0.28	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
			63%	Galchutt	0.47	0.47	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
37.70	38.05	I251A	18%	Fargo	0.60	0.00	0.60	0.60	0.60	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.88	0.00	0.88	0.00	0.88	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	1.80	0.00	1.80	0.00	1.80	0.00	0.00	0.00	0.00	0.00
38.05	39.00	I378A	100%	Bearden	8.59	0.00	0.00	0.00	8.59	0.00	0.00	0.00	0.00	0.00
39.00	39.12	I251A	18%	Fargo	0.20	0.00	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.29	0.00	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.60	0.00	0.60	0.00	0.60	0.00	0.00	0.00	0.00	0.00
39.12	39.26	I237A	35%	Enloe	0.45	0.45	0.00	0.45	0.45	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.82	0.82	0.00	0.82	0.82	0.00	0.00	0.00	0.00	0.00
39.26	39.34	I251A	18%	Fargo	0.14	0.00	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
			27%	Galchutt	0.20	0.00	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.41	0.00	0.41	0.00	0.41	0.00	0.00	0.00	0.00	0.00
39.34	39.40	I281A	25%	Delamere	0.14	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00
			31%	Mantador	0.18	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
			44%	Wheatville	0.25	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
39.40	39.60	I289A	28%	Elmville	0.50	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
			33%	Delamere	0.60	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
			39%	Mantador	0.70	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00
39.60	39.73	I281A	25%	Delamere	0.30	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00
			31%	Mantador	0.37	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00
			44%	Wheatville	0.52	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
39.73	39.74	I251A	18%	Fargo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
39.74	40.02	I378A	100%	Bearden	2.54	0.00	0.00	0.00	2.54	0.00	0.00	0.00	0.00	0.00
40.02	40.09	I237A	35%	Enloe	0.25	0.25	0.00	0.25	0.25	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.46	0.46	0.00	0.46	0.46	0.00	0.00	0.00	0.00	0.00
40.09	40.28	I242A	28%	Fargo	0.48	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.25	0.00	0.00	1.25	1.25	1.25	0.00	0.00	0.00	0.00
40.28	40.29	I321A	100%	Bearden	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
40.29	40.39	I242A	28%	Fargo	0.27	0.00	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	0.70	0.00	0.00	0.70	0.70	0.70	0.00	0.00	0.00	0.00
40.39	40.40	I321A	100%	Bearden	0.03	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
40.40	40.91	I281A	25%	Delamere	1.16	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00
			31%	Mantador	1.45	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00
			44%	Wheatville	2.03	0.00	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00
40.91	40.92	I280A	100%	Wheatville	0.15	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
40.92	41.00	I906F	20%	Urban land	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			25%	Aquents	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.00	0.00
				Orthents	0.17	0.00	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
			30%	Orthents	0.20	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.00
41.00	41.37	I280A	100%	Wheatville	3.38	0.00	0.00	0.00	3.38	0.00	0.00	0.00	0.00	0.00
41.37	41.44	I281A	25%	Delamere	0.16	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
			31%	Mantador	0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
			44%	Wheatville	0.28	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
41.44	41.58	I280A	100%	Wheatville	1.27	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00
41.58	41.80	I377A	100%	Wheatville	2.03	2.03	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00
41.80	41.98	I378A	100%	Bearden	1.61	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00	0.00
41.98	42.12	I251A	18%	Fargo	0.23	0.00	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.33	0.00	0.33	0.00	0.33	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.68	0.00	0.68	0.00	0.68	0.00	0.00	0.00	0.00	0.00
42.12	42.23	I378A	100%	Bearden	1.06	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00
42.23	42.38	I377A	100%	Wheatville	1.30	1.30	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00
42.38	42.81	I378A	100%	Bearden	3.93	0.00	0.00	0.00	3.93	0.00	0.00	0.00	0.00	0.00
42.81	43.26	I251A	18%	Fargo	0.76	0.00	0.76	0.76	0.76	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	1.11	0.00	1.11	0.00	1.11	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	2.28	0.00	2.28	0.00	2.28	0.00	0.00	0.00	0.00	0.00
43.26	43.32	I237A	35%	Enloe	0.19	0.19	0.00	0.19	0.19	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.35	0.35	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00
43.32	43.52	I242A	28%	Fargo	0.50	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.30	0.00	0.00	1.30	1.30	1.30	0.00	0.00	0.00	0.00
43.52	43.67	I251A	18%	Fargo	0.25	0.00	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.36	0.00	0.36	0.00	0.36	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.74	0.00	0.74	0.00	0.74	0.00	0.00	0.00	0.00	0.00
43.67	44.11	I237A	35%	Enloe	1.40	1.40	0.00	1.40	1.40	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.57	2.57	0.00	2.57	2.57	0.00	0.00	0.00	0.00	0.00
44.11	44.12	I242A	28%	Fargo	0.05	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	0.12	0.00	0.00	0.12	0.12	0.12	0.00	0.00	0.00	0.00
44.12	44.20	I237A	35%	Enloe	0.24	0.24	0.00	0.24	0.24	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.45	0.45	0.00	0.45	0.45	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In [i]	Milepost Out [i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
44.20	44.30	I251A	18%	Fargo	0.17	0.00	0.17	0.17	0.17	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.24	0.00	0.24	0.00	0.24	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.50	0.00	0.50	0.00	0.50	0.00	0.00	0.00	0.00	0.00
44.30	44.52	I237A	35%	Enloe	0.70	0.70	0.00	0.70	0.70	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	1.28	1.28	0.00	1.28	1.28	0.00	0.00	0.00	0.00	0.00
44.52	44.80	I251A	18%	Fargo	0.46	0.00	0.46	0.46	0.46	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.68	0.00	0.68	0.00	0.68	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	1.38	0.00	1.38	0.00	1.38	0.00	0.00	0.00	0.00	0.00
44.80	44.92	I252A	27%	Ryan	0.31	0.00	0.00	0.31	0.31	0.31	0.00	0.00	0.00	0.00
			73%	Aberdeen	0.85	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00
44.92	44.98	I384B	44%	Nutley	0.21	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Overly	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.98	45.05	I383A	100%	Overly	0.66	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.05	45.14	I378A	100%	Bearden	0.82	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00
45.14	45.29	I251A	18%	Fargo	0.25	0.00	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.37	0.00	0.37	0.00	0.37	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.76	0.00	0.76	0.00	0.76	0.00	0.00	0.00	0.00	0.00
45.29	45.47	I378A	100%	Bearden	1.62	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00
45.47	46.29	I378A	100%	Bearden	7.49	0.00	0.00	0.00	7.49	0.00	0.00	0.00	0.00	0.00
46.29	46.46	I321A	100%	Bearden	1.53	1.53	0.00	0.00	1.53	0.00	0.00	0.00	0.00	0.00
46.46	46.53	I226A	100%	Gardena	0.62	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.53	46.54	I321A	100%	Bearden	0.10	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
46.54	47.79	I340A	29%	Elmville	3.34	3.34	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
			35%	Delamere	4.01	4.01	0.00	0.00	4.01	0.00	0.00	0.00	0.00	0.00
				Mantador	4.01	4.01	0.00	0.00	4.01	0.00	0.00	0.00	0.00	0.00
47.79	47.97	I246A	38%	Wheatville	0.62	0.62	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
			63%	Galchutt	1.04	1.04	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00
47.97	48.12	I340A	29%	Elmville	0.40	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00
			35%	Delamere	0.48	0.48	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
				Mantador	0.48	0.48	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
48.12	49.04	I251A	18%	Fargo	1.53	0.00	1.53	1.53	1.53	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	2.24	0.00	2.24	0.00	2.24	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	4.58	0.00	4.58	0.00	4.58	0.00	0.00	0.00	0.00	0.00
49.04	49.09	I321A	100%	Bearden	0.43	0.43	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00
49.09	49.10	I251A	18%	Fargo	0.02	0.00	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.03	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	0.06	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00
49.10	49.47	I237A	35%	Enloe	1.18	1.18	0.00	1.18	1.18	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.16	2.16	0.00	2.16	2.16	0.00	0.00	0.00	0.00	0.00
49.47	49.95	I251A	18%	Fargo	0.80	0.00	0.80	0.80	0.80	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	1.17	0.00	1.17	0.00	1.17	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	2.39	0.00	2.39	0.00	2.39	0.00	0.00	0.00	0.00	0.00
49.95	50.03	I237A	35%	Enloe	0.27	0.27	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.50	0.50	0.00	0.50	0.50	0.00	0.00	0.00	0.00	0.00
50.03	50.27	I251A	18%	Fargo	0.39	0.00	0.39	0.39	0.39	0.00	0.00	0.00	0.00	0.00
			27%	Galchutt	0.58	0.00	0.58	0.00	0.58	0.00	0.00	0.00	0.00	0.00
			55%	Aberdeen	1.18	0.00	1.18	0.00	1.18	0.00	0.00	0.00	0.00	0.00
50.27	50.73	I241A	35%	Ryan	1.45	0.00	0.00	1.45	1.45	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.66	0.00	0.00	2.66	2.66	0.00	0.00	0.00	0.00	0.00
50.73	50.77	I229A	100%	Fargo	0.31	0.31	0.00	0.31	0.31	0.00	0.00	0.00	0.00	0.00
50.77	50.81	I234B	44%	Fargo	0.16	0.16	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
			56%	Nutley	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.81	50.85	I381A	100%	LaDelle	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.85	50.86	I149F	44%	Fluvaquents	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.07	0.00	0.00	0.00	0.07	0.07	0.00	0.07	0.00	0.00
50.86	50.87	IWa	100%	Water	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.87	50.88	I149F	44%	Fluvaquents	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.04	0.00	0.00	0.00	0.04	0.04	0.00	0.04	0.00	0.00
50.88	50.91	I381A	100%	LaDelle	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.91	50.96	I241A	35%	Ryan	0.16	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
			65%	Fargo	0.30	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.00	0.00
50.96	51.08	I229A	100%	Fargo	1.08	1.08	0.00	1.08	1.08	0.00	0.00	0.00	0.00	0.00
51.08	51.11	I149F	44%	Fluvaquents	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.12	0.00	0.00	0.00	0.12	0.12	0.00	0.12	0.00	0.00
51.11	51.13	IWa	100%	Water	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.13	51.15	I149F	44%	Fluvaquents	0.07	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.09	0.00	0.00	0.00	0.09	0.09	0.00	0.09	0.00	0.00
51.15	51.17	IWa	100%	Water	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.17	51.20	I149F	44%	Fluvaquents	0.13	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.16	0.00	0.00	0.00	0.16	0.16	0.00	0.16	0.00	0.00
51.20	51.27	I453A	100%	Wahpeton	0.66	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.27	51.29	I149F	44%	Fluvaquents	0.06	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.08	0.00	0.00	0.00	0.08	0.08	0.00	0.08	0.00	0.00
51.29	51.30	IWa	100%	Water	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.30	51.34	I149F	44%	Fluvaquents	0.14	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
			56%	Cashel	0.17	0.00	0.00	0.00	0.17	0.17	0.00	0.17	0.00	0.00
51.34	51.38	I229A	100%	Fargo	0.38	0.38	0.00	0.38	0.38	0.00	0.00	0.00	0.00	0.00
51.38	51.54	I241A	35%	Ryan	0.51	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.93	0.00	0.00	0.93	0.93	0.00	0.00	0.00	0.00	0.00
51.54	51.59	I241A	35%	Ryan	0.14	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.26	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.00	0.00
51.59	52.34	I242A	28%	Fargo	1.86	0.00	0.00	1.86	1.86	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	4.83	0.00	0.00	4.83	4.83	4.83	0.00	0.00	0.00	0.00
52.34	52.40	I231A	100%	Dovray	0.57	0.57	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00
52.40	52.49	I242A	28%	Fargo	0.22	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	0.57	0.00	0.00	0.57	0.57	0.57	0.00	0.00	0.00	0.00
52.49	52.66	I229A	100%	Fargo	1.60	1.60	0.00	1.60	1.60	0.00	0.00	0.00	0.00	0.00
52.66	52.70	I231A	100%	Dovray	0.39	0.39	0.00	0.39	0.39	0.00	0.00	0.00	0.00	0.00
52.70	52.84	I242A	28%	Fargo	0.34	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	0.88	0.00	0.00	0.88	0.88	0.88	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In [i]	Milepost Out [i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
52.84	53.03	I241A	35%	Ryan	0.61	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	1.12	0.00	0.00	1.12	1.12	0.00	0.00	0.00	0.00	0.00
53.03	53.09	I237A	35%	Enloe	0.20	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.38	0.38	0.00	0.38	0.38	0.00	0.00	0.00	0.00	0.00
53.09	53.15	I229A	100%	Fargo	0.54	0.54	0.00	0.54	0.54	0.00	0.00	0.00	0.00	0.00
53.15	53.15	I237A	35%	Enloe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
53.15	53.28	I229A	100%	Fargo	1.16	1.16	0.00	1.16	1.16	0.00	0.00	0.00	0.00	0.00
53.28	53.50	I242A	28%	Fargo	0.55	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.43	0.00	0.00	1.43	1.43	1.43	0.00	0.00	0.00	0.00
53.50	53.53	I231A	100%	Dovray	0.27	0.27	0.00	0.27	0.27	0.00	0.00	0.00	0.00	0.00
53.53	53.63	I242A	28%	Fargo	0.26	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	0.68	0.00	0.00	0.68	0.68	0.68	0.00	0.00	0.00	0.00
53.63	53.98	I229A	100%	Fargo	3.18	3.18	0.00	3.18	3.18	0.00	0.00	0.00	0.00	0.00
53.98	54.22	I242A	28%	Fargo	0.61	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.59	0.00	0.00	1.59	1.59	1.59	0.00	0.00	0.00	0.00
54.22	54.33	I237A	35%	Enloe	0.35	0.35	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.65	0.65	0.00	0.65	0.65	0.00	0.00	0.00	0.00	0.00
54.33	54.67	I229A	100%	Fargo	3.04	3.04	0.00	3.04	3.04	0.00	0.00	0.00	0.00	0.00
54.67	54.73	I237A	35%	Enloe	0.19	0.19	0.00	0.19	0.19	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.35	0.35	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00
54.73	55.01	I229A	100%	Fargo	2.56	2.56	0.00	2.56	2.56	0.00	0.00	0.00	0.00	0.00
55.01	55.57	I241A	35%	Ryan	1.68	0.00	0.00	1.68	1.68	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	3.09	0.00	0.00	3.09	3.09	0.00	0.00	0.00	0.00	0.00
55.57	55.74	I237A	35%	Enloe	0.49	0.49	0.00	0.49	0.49	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.91	0.91	0.00	0.91	0.91	0.00	0.00	0.00	0.00	0.00
55.74	55.84	I241A	35%	Ryan	0.29	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.53	0.00	0.00	0.53	0.53	0.00	0.00	0.00	0.00	0.00
55.84	55.87	I234B	44%	Fargo	0.13	0.13	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
			56%	Nutley	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A
Wahpeton Expansion Project
Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
55.87	55.89	I229A	100%	Fargo	0.18	0.18	0.00	0.18	0.18	0.00	0.00	0.00	0.00	0.00
55.89	56.00	I237A	35%	Enloe	0.32	0.32	0.00	0.32	0.32	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.59	0.59	0.00	0.59	0.59	0.00	0.00	0.00	0.00	0.00
56.00	56.13	I229A	100%	Fargo	1.07	1.07	0.00	1.07	1.07	0.00	0.00	0.00	0.00	0.00
56.13	56.23	I237A	35%	Enloe	0.31	0.31	0.00	0.31	0.31	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.56	0.56	0.00	0.56	0.56	0.00	0.00	0.00	0.00	0.00
56.23	56.68	I241A	35%	Ryan	1.31	0.00	0.00	1.31	1.31	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.40	0.00	0.00	2.40	2.40	0.00	0.00	0.00	0.00	0.00
56.68	56.94	I229A	100%	Fargo	2.17	2.17	0.00	2.17	2.17	0.00	0.00	0.00	0.00	0.00
56.94	57.34	I241A	35%	Ryan	1.20	0.00	0.00	1.20	1.20	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	2.20	0.00	0.00	2.20	2.20	0.00	0.00	0.00	0.00	0.00
57.34	57.37	I237A	35%	Enloe	0.08	0.08	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.15	0.15	0.00	0.15	0.15	0.00	0.00	0.00	0.00	0.00
57.37	57.63	I241A	35%	Ryan	0.79	0.00	0.00	0.79	0.79	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	1.44	0.00	0.00	1.44	1.44	0.00	0.00	0.00	0.00	0.00
57.63	57.88	I237A	35%	Enloe	0.72	0.72	0.00	0.72	0.72	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	1.32	1.32	0.00	1.32	1.32	0.00	0.00	0.00	0.00	0.00
57.88	58.11	I229A	100%	Fargo	1.90	1.90	0.00	1.90	1.90	0.00	0.00	0.00	0.00	0.00
58.11	58.19	I241A	35%	Ryan	0.26	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.47	0.00	0.00	0.47	0.47	0.00	0.00	0.00	0.00	0.00
58.19	58.52	I242A	28%	Fargo	0.76	0.00	0.00	0.76	0.76	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.99	0.00	0.00	1.99	1.99	1.99	0.00	0.00	0.00	0.00
58.52	58.56	I237A	35%	Enloe	0.11	0.11	0.00	0.11	0.11	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.20	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00
58.56	58.82	I242A	28%	Fargo	0.62	0.00	0.00	0.62	0.62	0.00	0.00	0.00	0.00	0.00
			72%	Ryan	1.61	0.00	0.00	1.61	1.61	1.61	0.00	0.00	0.00	0.00
58.82	58.91	I229A	100%	Fargo	0.75	0.75	0.00	0.75	0.75	0.00	0.00	0.00	0.00	0.00
58.91	58.96	I405A	100%	Antler	0.43	0.43	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00
58.96	59.21	I405A	100%	Antler	2.08	2.08	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00
59.21	59.41	I405A	100%	Antler	1.62	1.62	0.00	0.00	1.62	0.00	0.00	0.00	0.00	0.00

APPENDIX 7A

Wahpeton Expansion Project

Revised Soil Characteristics for Each Soil Map Unit Along the Proposed Pipeline Workspace [a]

Milepost In[i]	Milepost Out[i]	Map Unit Symbol	Component Percent	Component Name	Acres Crossed	Prime Farmland (acres) [b]	Farmland of Statewide Importance (acres) [b]	Hydric Soils (acres) [b]	Compaction Prone (acres) [c]	Highly Erodible (acres)		Revegetation Concerns (acres) [f]	Rocky (acres) [g]	Shallow Bedrock (acres) [h]
										Water [d]	Wind [e]			
59.41	59.70	I397A	32%	Mustinka	0.81	0.81	0.00	0.81	0.81	0.00	0.00	0.00	0.00	0.00
			68%	Antler	1.70	1.70	0.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00
59.70	59.90	I237A	35%	Enloe	0.61	0.61	0.00	0.61	0.61	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	1.13	1.13	0.00	1.13	1.13	0.00	0.00	0.00	0.00	0.00
59.90	60.01	I229A	100%	Fargo	1.04	1.04	0.00	1.04	1.04	0.00	0.00	0.00	0.00	0.00
60.01	60.03	I237A	35%	Enloe	0.07	0.07	0.00	0.07	0.07	0.00	0.00	0.00	0.00	0.00
			65%	Fargo	0.13	0.13	0.00	0.13	0.13	0.00	0.00	0.00	0.00	0.00
60.03	60.48	I236A	32%	Reis	1.29	1.29	0.00	1.29	1.29	0.00	0.00	0.00	0.00	0.00
			68%	Clearwater	2.78	2.78	0.00	2.78	2.78	0.00	0.00	0.00	0.00	0.00
60.48	60.59	I243A	100%	Doran	1.01	1.01	0.00	0.00	1.01	0.00	0.00	0.00	0.00	0.00
				Total	**542.19**	**369.86**	**35.27**	**343.46**	**496.00**	**24.13**	**12.91**	**9.88**	**0.00**	**0.00**

[a] The area affected includes pipeline right-of-way permanent easement and temporary workspace. The numbers in this table have been rounded for presentation purposes. As a result, the totals may not reflect the sum of the addends. The values in each row may not add up to the total acreage for each facility because the soils may occur in more than one characteristic class or may not occur in any class listed in the table.

[b] As designated by the Natural Resources Conservation Service.

[c] Includes soils that have clay loam or finer textures in somewhat poor, poor, and very poor drainage classes.

[d] Includes land in capability subclasses IVE through VIIIE and soils with an average slope greater than or equal to 9 percent.

[e] Includes soils with Wind Erodibility Group classification of 1 or 2.

[f] Includes coarse-textured soils (sandy loams and coarser) that are moderately well to excessively drained and soils with an average slope greater than or equal to 9 percent.

[g] Includes soils that have either: (1) a very gravelly, extremely gravelly, cobbley, stony, bouldery, flaggy, or channery modifier to the textural class; or (2) have greater than 5 percent (weight basis) of rock fragments larger than 3 inches in any layer within the profile.

[h] Includes soils that have bedrock within 60 inches of the soil surface. Paralithic refers to "soft" bedrock that will not likely require blasting during construction. Lithic refers to "hard" bedrock that may require blasting or other special construction techniques during installation of the proposed pipeline segments.
Note: Y = Yes; N = No

[i] The total length of the pipeline is 60.5 miles; however, the current mileposts are calibrated to the original routed centerline and do not reflect the actual routed mileage and are for reference only.

TABLE 8.2-1

Wahpeton Expansion Project
Land Uses Affected by Construction and Operation of the Project (in acres) [a, b, c]

	Agricultural		Open Land		Forest		Developed		Open Water		Total	
Facility/County/Workspace	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**
Cass County												
Pipeline Facility												
Wahpeton Expansion Pipeline	436.0	343.9	0.0	0.0	0.4	0.4	6.7	5.6	5.9	5.7	444.9	355.7
ATWS	49.8	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	52.3	0.0
Aboveground Facilities												
Mapleton Compressor Station	2.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	2.9	0.0
MDU—Kindred Border Station	4.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	1.7
Valve Site #2	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1
Access Roads	7.9	0.2	0.0	0.0	0.1	0.0	2.4	<0.1	<0.1	0.0	10.3	0.2
Contractor Yards												
Kindred Yard	3.5	0.0	0.3	0.0	0.2	0.0	<0.1	0.0	0.0	0.0	4.3	0.0
Kost Yard	19.1	0.0	1.6	0.0	0.0	0.0	11.8	0.0	1.6	0.0	35.1	0.0
Subtotal	**524.0**	**345.9**	**1.9**	**0.0**	**0.7**	**0.4**	**21.8**	**5.6**	**7.7**	**5.7**	**556.1**	**357.7**
Richland County												
Pipeline Facility												
Wahpeton Expansion Pipeline	443.8	343.9	8.4	5.7	0.6	0.6	7.0	5.4	0.8	0.7	470.3	363.4
ATWS	56.9	0.0	1.4	0.0	0.1	0.0	1.7	0.0	0.6	0.0	63.2	0.0
Aboveground Facilities												
MDU—Wahpeton Border Station	3.5	1.7	0.0	0.0	0.0	0.0	0.4	0.0	0.1	0.0	4.0	1.7
Valve Site #4	0.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	<0.1	0.0	0.7	0.2
Valve Site #5	0.7	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.0	0.3
Valve Site #6	0.4	0.1	0.0	0.0	0.0	0.0	<0.1	<0.1	0.0	0.0	0.5	0.2
Access Roads	6.9	1.1	0.3	0.0	0.3	0.0	5.3	1.8	<0.1	0.0	13.2	2.9
Contractor Yards												
Comstock North Yard	20.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	<0.1	0.0	21.0	0.0
Wahpeton City Yard	28.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	28.5	0.0

TABLE 8.2-1

Wahpeton Expansion Project
Land Uses Affected by Construction and Operation of the Project (in acres) [a, b, c]

	Agricultural		Open Land		Forest		Developed		Open Water		Total	
Facility/County/Workspace	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**	**Const.**	**Oper.**
Comstock South Yard	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	4.7	0.0
Subtotal	**561.3**	**346.9**	**10.1**	**5.7**	**1.0**	**0.6**	**20.2**	**7.2**	**11.7**	**7.8**	**604.4**	**368.2**
SUBTOTALS BY FACILITY TYPE												
Pipeline Facility	**986.5**	**687.9**	**9.8**	**5.7**	**1.2**	**1.0**	**16.2**	**11.0**	**17.0**	**13.5**	**1030.7**	**719.1**
Aboveground Facilities	**12.7**	**3.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.8**	**0.0**	**0.2**	**0.0**	**13.6**	**3.6**	
Access Roads	**14.8**	**1.3**	**0.3**	**0.0**	**0.3**	**0.0**	**7.7**	**1.8**	**0.6**	**<0.1**	**23.6**	**3.2**
Contractor Yards	**71.4**	**0.0**	**1.9**	**0.0**	**0.2**	**0.0**	**17.3**	**0.0**	**1.7**	**0.0**	**92.5**	**0.0**
PROJECT TOTAL	**1085.3**	**692.8**	**12.0**	**5.7**	**1.7**	**1.0**	**42.0**	**12.8**	**19.4**	**13.6**	**1160.5**	**725.9**

[a] The numbers in this table will be rounded for presentation purposes. As a result, the totals may not reflect the sum of the addends.

[b] Valve #1 will be constructed and operated within the Mapleton Compressor Station site. Valve settings #3 and #7 will be constructed and operated within the construction and operational footprints of the MDU—Kindred Border Station and the MDU—Wahpeton Border Station, respectively. The construction and operational acreages for these valve settings are included within the acreages for the Mapleton Compressor Station, MDU—Kindred Border Station, and the MDU—Wahpeton Border Station. Four pig launcher/receiver settings will be collocated at Valve Sites #1, #2, #5, and #7. Land requirements for the pig launchers/receivers is accounted for in the land requirements for the four valves or other aboveground facilities.

[c] Const. = construction; Oper. = operational

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_001	0.7	Agriculture, Developed	0.2	25.0	300.5	Cass	Private
Pipeline Facility	EWS_001_a	0.4	Agriculture, Developed	0.2	140.2	142.6	Cass	Private
Pipeline Facility	EWS_002	0.8	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_003	0.7	Agriculture, Developed	0.3	50.0	300.0	Cass	Private
Pipeline Facility	EWS_004	0.8	Agriculture	0.3	50.0	301.4	Cass	Private
Pipeline Facility	EWS_005	1.1	Agriculture	0.9	50.0	756.8	Cass	Private
Pipeline Facility	EWS_006	1.1	Agriculture	0.8	153.0	890.9	Cass	Private
Pipeline Facility	EWS_007	1.3	Agriculture	0.8	153.3	808.0	Cass	Private
Pipeline Facility	EWS_008	1.4	Agriculture	0.8	50.0	675.7	Cass	Private
Pipeline Facility	EWS_009	1.5	Agriculture	0.7	216.6	351.9	Cass	Private
Pipeline Facility	EWS_010	1.5	Agriculture	0.2	58.4	241.6	Cass	Private
Pipeline Facility	EWS_011	1.6	Agriculture	0.3	77.3	222.8	Cass	Private
Pipeline Facility	EWS_012	1.6	Agriculture, Developed	0.4	172.7	319.3	Cass	Private
Pipeline Facility	EWS_012_b	1.7	Agriculture	0.2	142.3	149.6	Cass	Private
Pipeline Facility	EWS_012_c	1.8	Agriculture	0.2	92.6	184.6	Cass	Private
Pipeline Facility	EWS_012_d	1.9	Agriculture	0.2	92.4	184.8	Cass	Private
Pipeline Facility	EWS_013	2.6	Agriculture	0.3	50.0	301.2	Cass	Private
Pipeline Facility	EWS_014	2.6	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_015	2.7	Agriculture, Developed	0.3	50.0	300.5	Cass	Private
Pipeline Facility	EWS_016	2.7	Agriculture	0.2	25.0	300.6	Cass	Private
Pipeline Facility	EWS_017	3.6	Agriculture	0.3	50.2	301.0	Cass	Private
Pipeline Facility	EWS_018	3.6	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_019_b	3.8	Agriculture	0.3	23.0	629.6	Cass	Private
Pipeline Facility	EWS_019_c	3.9	Agriculture	0.6	50.0	551.3	Cass	Private
Pipeline Facility	EWS_019_d	3.9	Agriculture	0.2	23.0	300.0	Cass	Private
Pipeline Facility	EWS_019_e	4.4	Agriculture	0.2	124.2	140.9	Cass	Private
Pipeline Facility	EWS_019_f	4.6	Agriculture	0.2	140.5	142.1	Cass	Private

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_020	3.7	Agriculture, Developed	1.2	248.0	709.3	Cass	Private
Pipeline Facility	EWS_021	6.5	Agriculture, Developed	1.3	265.0	730.5	Cass	Private
Pipeline Facility	EWS_022	6.5	Agriculture, Developed	0.2	20.0	410.8	Cass	Private
Pipeline Facility	EWS_022_c	6.7	Agriculture	0.2	20.0	380.3	Cass	Private
Pipeline Facility	EWS_022_d	6.7	Agriculture	0.6	50.0	550.0	Cass	Private
Pipeline Facility	EWS_023	7.2	Agriculture, Developed	0.3	50.0	300.4	Cass	Private
Pipeline Facility	EWS_024	7.2	Agriculture, Developed	0.3	50.0	300.4	Cass	Private
Pipeline Facility	EWS_025	7.2	Agriculture, Developed	0.1	20.0	300.0	Cass	Private
Pipeline Facility	EWS_026	7.2	Agriculture, Developed	0.1	20.0	300.1	Cass	Private
Pipeline Facility	EWS_027	8.2	Agriculture	0.3	50.0	300.6	Cass	Private
Pipeline Facility	EWS_028	8.2	Agriculture, Developed	0.3	50.0	300.4	Cass	Private
Pipeline Facility	EWS_029	6.4	Agriculture	0.3	50.0	300.0	Cass	Private
Pipeline Facility	EWS_030	6.4	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_031	8.3	Agriculture, Developed	0.5	167.7	290.7	Cass	Private
Pipeline Facility	EWS_032	8.2	Agriculture, Developed	0.1	20.0	300.0	Cass	Private
Pipeline Facility	EWS_033	8.2	Agriculture, Developed	0.2	25.0	300.3	Cass	Private
Pipeline Facility	EWS_034	8.3	Agriculture, Developed	0.2	25.0	300.1	Cass	Private
Pipeline Facility	EWS_035	8.4	Agriculture	0.2	25.0	299.8	Cass	Private
Pipeline Facility	EWS_036	8.4	Agriculture	0.5	225.0	249.8	Cass	Private
Pipeline Facility	EWS_037	9.2	Agriculture, Developed	0.2	24.8	300.3	Cass	Private
Pipeline Facility	EWS_038	9.3	Agriculture, Developed	0.4	186.9	238.0	Cass	Private
Pipeline Facility	EWS_039	9.2	Agriculture, Developed	0.3	50.0	300.6	Cass	Private
Pipeline Facility	EWS_040	5.4	Agriculture	0.3	50.0	300.5	Cass	Private
Pipeline Facility	EWS_041	5.5	Agriculture	0.3	50.0	300.5	Cass	Private
Pipeline Facility	EWS_042	9.3	Agriculture, Developed	0.3	76.7	279.0	Cass	Private
Pipeline Facility	EWS_043	5.8	Agriculture	0.7	100.0	866.1	Cass	Private
Pipeline Facility	EWS_044	5.4	Agriculture	0.2	25.0	300.0	Cass	Private

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Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_045	4.9	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_046	6.1	Agriculture	0.7	100.0	850.6	Cass	Private
Pipeline Facility	EWS_047	5.5	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_048	5	Agriculture	0.4	25.0	740.6	Cass	Private
Pipeline Facility	EWS_050	5.2	Agriculture	0.4	100.0	463.3	Cass	Private
Pipeline Facility	EWS_051	5.7	Agriculture	1.0	50.0	866.1	Cass	Private
Pipeline Facility	EWS_052	4.9	Agriculture	0.3	50.0	300.5	Cass	Private
Pipeline Facility	EWS_053	6.1	Agriculture	1.0	50.0	851.1	Cass	Private
Pipeline Facility	EWS_053_b	6.3	Agriculture	0.2	99.9	141.7	Cass	Private
Pipeline Facility	EWS_054	5	Agriculture	0.9	50.0	802.7	Cass	Private
Pipeline Facility	EWS_056	5.2	Agriculture	0.7	150.0	547.7	Cass	Private
Pipeline Facility	EWS_056_b	5.3	Agriculture	0.2	140.9	141.4	Cass	Private
Pipeline Facility	EWS_057	10	Agriculture	2.0	254.1	546.7	Cass	Private
Pipeline Facility	EWS_058	10	Agriculture	0.7	104.7	424.8	Cass	Private
Pipeline Facility	EWS_059	10.1	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_060	10.1	Agriculture	0.3	50.0	300.9	Cass	Private
Pipeline Facility	EWS_061	10.6	Agriculture, Developed	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_062	10.6	Agriculture, Developed	0.3	50.0	309.3	Cass	Private
Pipeline Facility	EWS_063	10.7	Agriculture	0.2	32.5	297.8	Cass	Private
Pipeline Facility	EWS_064	10.7	Agriculture	0.5	144.4	376.8	Cass	Private
Pipeline Facility	EWS_065	12.2	Agriculture	0.4	96.5	369.2	Cass	Private
Pipeline Facility	EWS_066	12.2	Agriculture	0.2	68.6	277.8	Cass	Private
Pipeline Facility	EWS_067	12.6	Agriculture, Developed	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_068	11.6	Agriculture	0.1	25.0	300.0	Cass	Private
Pipeline Facility	EWS_069	12.7	Agriculture	0.2	25.0	300.3	Cass	Private
Pipeline Facility	EWS_070	11.7	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_071	12.6	Agriculture, Developed	0.3	50.0	301.3	Cass	Private

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Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_072	12.1	Agriculture	0.2	26.8	324.9	Cass	Private
Pipeline Facility	EWS_073	11.6	Agriculture	0.3	50.0	300.6	Cass	Private
Pipeline Facility	EWS_074	12.7	Agriculture	0.3	50.0	300.6	Cass	Private
Pipeline Facility	EWS_075	11.7	Agriculture	0.3	50.0	300.9	Cass	Private
Pipeline Facility	EWS_076	12.1	Agriculture	0.4	110.9	361.9	Cass	Private
Pipeline Facility	EWS_077	13.6	Agriculture	1.2	250.3	383.9	Cass	Private
Pipeline Facility	EWS_078	13.6	Agriculture	0.3	50.0	307.6	Cass	Private
Pipeline Facility	EWS_079	13.8	Agriculture	0.1	15.0	315.4	Cass	Private
Pipeline Facility	EWS_080	14.8	Agriculture	0.6	101.9	440.7	Cass	Private
Pipeline Facility	EWS_081	13.7	Agriculture	1.1	250.2	392.4	Cass	Private
Pipeline Facility	EWS_082	14.8	Agriculture	0.2	29.3	303.9	Cass	Private
Pipeline Facility	EWS_083	15.7	Agriculture, Developed	0.3	50.0	301.3	Cass	Private
Pipeline Facility	EWS_084	15.8	Agriculture	0.3	50.0	301.5	Cass	Private
Pipeline Facility	EWS_085	14.7	Agriculture	0.1	15.0	329.9	Cass	Private
Pipeline Facility	EWS_086	15.7	Agriculture, Developed	0.2	25.0	299.7	Cass	Private
Pipeline Facility	EWS_087	15.8	Agriculture	0.2	25.0	299.7	Cass	Private
Pipeline Facility	EWS_088	14.7	Agriculture	0.7	149.4	378.3	Cass	Private
Pipeline Facility	EWS_089	16.7	Agriculture	0.3	100.0	337.3	Cass	Private
Pipeline Facility	EWS_091	16.8	Agriculture	0.2	24.9	299.7	Cass	Private
Pipeline Facility	EWS_092	16.6	Agriculture	0.3	50.0	301.2	Cass	Private
Pipeline Facility	EWS_094	16.8	Agriculture	0.3	50.0	301.5	Cass	Private
Pipeline Facility	EWS_095	17.7	Agriculture	0.2	25.0	299.7	Cass	Private
Pipeline Facility	EWS_096	17.8	Agriculture	0.2	25.0	299.7	Cass	Private
Pipeline Facility	EWS_097	17.7	Agriculture	0.3	49.7	301.3	Cass	Private
Pipeline Facility	EWS_098	17.8	Agriculture, Developed	0.3	50.0	301.5	Cass	Private
Pipeline Facility	EWS_099	18.7	Agriculture	0.2	25.0	299.7	Cass	Private
Pipeline Facility	EWS_100	18.8	Agriculture	0.2	25.0	299.8	Cass	Private

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Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_101	18.7	Agriculture	0.3	50.0	301.3	Cass	Private
Pipeline Facility	EWS_102	18.8	Agriculture, Developed	0.4	50.0	367.1	Cass	Private
Pipeline Facility	EWS_103	19.7	Agriculture	0.5	102.1	416.6	Cass	Private
Pipeline Facility	EWS_105	19.7	Agriculture	0.2	25.0	290.0	Cass	Private
Pipeline Facility	EWS_107	19.8	Agriculture, Developed	0.2	25.0	339.6	Cass	Private
Pipeline Facility	EWS_108	19.8	Agriculture, Developed	0.7	173.1	372.8	Cass	Private
Pipeline Facility	EWS_109	20.8	Agriculture	0.2	25.0	300.0	Cass	Private
Pipeline Facility	EWS_110	20.9	Agriculture	0.2	25.0	299.6	Cass	Private
Pipeline Facility	EWS_111	20.8	Agriculture	0.3	50.0	301.1	Cass	Private
Pipeline Facility	EWS_112	20.9	Agriculture	0.3	50.0	301.2	Cass	Private
Pipeline Facility	EWS_113	21.8	Agriculture	0.2	25.0	299.8	Cass	Private
Pipeline Facility	EWS_114	21.8	Agriculture	0.2	160.9	207.7	Cass	Private
Pipeline Facility	EWS_115	21.8	Agriculture	0.3	50.0	301.1	Cass	Private
Pipeline Facility	EWS_116	21.9	Agriculture, Developed	0.3	42.0	300.7	Cass	Private
Pipeline Facility	EWS_116_b	22.3	Agriculture, Developed	0.2	142.3	156.7	Cass	Private
Pipeline Facility	EWS_117	23.3	Agriculture	0.2	25.0	299.9	Cass	Private
Pipeline Facility	EWS_119	23.3	Agriculture	0.3	50.0	300.8	Cass	Private
Aboveground Facility	EWS_121	23.4	Agriculture	2.5	359.5	564.1	Cass	Private
Pipeline Facility	EWS_121_b	23.7	Agriculture, Developed	0.2	141.4	142.5	Cass	Private
Pipeline Facility	EWS_123	24	Agriculture	0.7	100.0	850.0	Cass	Private
Pipeline Facility	EWS_124	24.3	Agriculture	0.7	100.0	850.0	Cass	Private
Pipeline Facility	EWS_125	24	Agriculture	1.0	50.0	850.5	Cass	Private
Pipeline Facility	EWS_126	24.3	Agriculture	1.0	50.0	850.5	Cass	Private
Pipeline Facility	EWS_127	24.7	Agriculture	0.2	30.1	299.3	Cass	Private
Pipeline Facility	EWS_128	24.8	Agriculture	0.2	25.0	299.8	Richland	Private
Pipeline Facility	EWS_129	24.7	Agriculture	0.3	55.9	307.5	Cass	Private

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Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_130	24.8	Agriculture	0.3	50.0	300.9	Richland	Private
Pipeline Facility	EWS_130_b	25.7	Agriculture	0.1	116.3	141.3	Richland	Private
Pipeline Facility	EWS_131	26.6	Agriculture	0.3	50.0	301.1	Richland	Private
Pipeline Facility	EWS_132	26.6	Agriculture	0.1	14.2	299.9	Richland	Private
Pipeline Facility	EWS_133	26.7	Agriculture	0.3	50.0	301.5	Richland	Private
Pipeline Facility	EWS_134	26.7	Agriculture	0.1	14.5	299.6	Richland	Private
Pipeline Facility	EWS_135	27.6	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_136	27.6	Agriculture	0.1	21.8	300.0	Richland	Private
Pipeline Facility	EWS_137	27.7	Agriculture	0.3	50.0	300.7	Richland	Private
Pipeline Facility	EWS_138	27.7	Agriculture	0.1	21.9	300.0	Richland	Private
Pipeline Facility	EWS_138_b	28.2	Agriculture	0.2	140.6	141.4	Richland	Private
Pipeline Facility	EWS_139	28.3	Agriculture	0.2	25.0	418.8	Richland	Private
Pipeline Facility	EWS_140	28.4	Agriculture	0.2	25.0	401.5	Richland	Private
Pipeline Facility	EWS_141	28.3	Agriculture	0.5	50.0	420.3	Richland	Private
Pipeline Facility	EWS_142	28.4	Agriculture	0.5	50.0	400.0	Richland	Private
Pipeline Facility	EWS_144	29.3	Agriculture	0.2	25.0	299.8	Richland	Private
Pipeline Facility	EWS_145	29.3	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_146_c	30.9	Agriculture	0.2	90.6	183.3	Richland	Private
Pipeline Facility	EWS_146_d	30.7	Agriculture	0.2	90.8	183.1	Richland	Private
Pipeline Facility	EWS_147	29.3	Agriculture	0.3	50.0	301.8	Richland	Private
Pipeline Facility	EWS_148	29.3	Agriculture	0.3	50.0	300.9	Richland	Private
Pipeline Facility	EWS_149_a	30.3	Agriculture	0.3	50.0	301.4	Richland	Private
Pipeline Facility	EWS_149_b	30.3	Agriculture	0.2	25.0	293.5	Richland	Private
Pipeline Facility	EWS_149_c	30.4	Agriculture, Developed	0.3	50.0	300.9	Richland	Private
Pipeline Facility	EWS_149_d	30.4	Agriculture, Developed	0.2	25.0	299.8	Richland	Private
Pipeline Facility	EWS_150_a	30.1	Agriculture	0.2	92.2	182.3	Richland	Private
Pipeline Facility	EWS_150_b	30.3	Agriculture	0.2	92.1	182.3	Richland	Private

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Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_151	31.3	Agriculture, Forest	0.3	25.0	512.0	Richland	Private
Pipeline Facility	EWS_152	31.4	Agriculture	0.3	25.0	512.0	Richland	Private
Pipeline Facility	EWS_153	31.3	Agriculture, Developed	0.9	205.8	566.3	Richland	Private
Pipeline Facility	EWS_154	31.4	Agriculture	0.6	50.0	511.6	Richland	Private
Pipeline Facility	EWS_155	33.4	Agriculture	0.2	25.0	299.7	Richland	Private
Pipeline Facility	EWS_156	33.5	Agriculture, Open Water	0.2	25.0	299.8	Richland	Private
Pipeline Facility	EWS_157	32.3	Agriculture, Developed	0.2	25.0	299.8	Richland	Private
Pipeline Facility	EWS_158	32.4	Agriculture	0.2	25.1	300.0	Richland	Private
Pipeline Facility	EWS_159	33.4	Agriculture	0.3	50.0	301.6	Richland	Private
Pipeline Facility	EWS_160	33.5	Agriculture, Open Water	0.3	50.0	300.9	Richland	Private
Pipeline Facility	EWS_160_b	34.4	Agriculture, Developed	0.2	140.6	141.4	Richland	Private
Pipeline Facility	EWS_160_c	34.5	Agriculture	0.8	151.2	398.0	Richland	Private
Pipeline Facility	EWS_160_e	34.9	Agriculture	0.2	85.1	188.3	Richland	Private
Pipeline Facility	EWS_160_f	35	Open Land	0.4	100.0	306.2	Richland	Private
Pipeline Facility	EWS_161	32.3	Agriculture	0.3	50.0	301.6	Richland	Private
Pipeline Facility	EWS_162	32.4	Agriculture	0.3	50.0	300.9	Richland	Private
Pipeline Facility	EWS_162_b	32.6	Agriculture	0.2	141.8	141.9	Richland	Private
Pipeline Facility	EWS_162_c	32.6	Agriculture, Open Water	0.7	148.5	281.5	Richland	Private
Pipeline Facility	EWS_163	35.6	Open Land	0.2	25.0	294.0	Richland	Private
Pipeline Facility	EWS_164	35.6	Open Land	0.4	50.0	323.1	Richland	Private
Pipeline Facility	EWS_165	35.7	Open Land	0.1	25.0	114.3	Richland	Private
Pipeline Facility	EWS_166	35.7	Developed, Open Land	0.1	50.1	129.0	Richland	Private
Pipeline Facility	EWS_167	36.1	Open Water	0.2	25.0	299.7	Richland	Private
Pipeline Facility	EWS_169	36.2	Open Land	0.2	28.0	312.5	Richland	Private
Pipeline Facility	EWS_170	36.2	Agriculture, Open Land	0.3	58.6	298.7	Richland	Private
Pipeline Facility	EWS_171	36.7	Agriculture, Developed, Open Land	0.2	25.0	299.8	Richland	Private

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Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_172	36.7	Agriculture, Developed	0.4	50.0	327.3	Richland	Private
Pipeline Facility	EWS_173	36.8	Agriculture, Forest, Open Land	0.5	124.0	448.3	Richland	Private
Pipeline Facility	EWS_174	36.8	Agriculture, Forest	0.3	50.0	289.1	Richland	Private
Pipeline Facility	EWS_175	37.5	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_176	37.5	Agriculture	0.2	25.0	300.3	Richland	Private
Pipeline Facility	EWS_177	37.6	Agriculture	0.3	50.0	300.6	Richland	Private
Pipeline Facility	EWS_178	37.6	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_179	38.5	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_180	38.5	Agriculture	0.2	25.0	300.3	Richland	Private
Pipeline Facility	EWS_181	38.6	Agriculture	0.2	130.2	171.5	Richland	Private
Pipeline Facility	EWS_182	38.6	Agriculture	0.6	255.2	296.5	Richland	Private
Pipeline Facility	EWS_182_a	39.8	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_182_b	39.8	Agriculture, Developed	0.1	18.4	300.2	Richland	Private
Pipeline Facility	EWS_182_c	39.9	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_182_d	39.9	Agriculture, Developed	0.1	18.9	300.0	Richland	Private
Pipeline Facility	EWS_183	40.4	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_184	40.4	Agriculture	0.1	20.9	300.2	Richland	Private
Pipeline Facility	EWS_185	40.5	Agriculture	0.3	50.0	300.6	Richland	Private
Pipeline Facility	EWS_186	40.5	Agriculture	0.1	20.9	300.0	Richland	Private
Pipeline Facility	EWS_187	40.9	Agriculture	0.2	18.3	600.8	Richland	Private
Pipeline Facility	EWS_188	40.9	Agriculture	0.9	125.0	599.8	Richland	Private
Pipeline Facility	EWS_189	41	Agriculture	0.0	16.8	50.2	Richland	Private
Pipeline Facility	EWS_190	41.1	Agriculture	0.6	25.0	1019.7	Richland	Private
Pipeline Facility	EWS_191	41	Agriculture, Developed	1.9	432.6	730.3	Richland	Private
Pipeline Facility	EWS_191_b	41.1	Agriculture, Developed	0.1	65.0	100.1	Richland	Private
Pipeline Facility	EWS_192	41.2	Agriculture	1.3	125.0	953.4	Richland	Private
Pipeline Facility	EWS_192_b	41.9	Agriculture, Developed	0.2	69.6	195.4	Richland	Private

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_192_c	42	Agriculture	0.2	93.4	183.4	Richland	Private
Pipeline Facility	EWS_192_d	41.3	Agriculture	0.2	25.0	300.3	Richland	Private
Pipeline Facility	EWS_192_e	41.3	Agriculture	0.5	125.0	300.8	Richland	Private
Pipeline Facility	EWS_193	42.4	Agriculture, Developed	0.3	70.6	230.1	Richland	Private
Pipeline Facility	EWS_194	42.4	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_195	42.4	Agriculture, Developed	0.2	170.0	180.2	Richland	Private
Pipeline Facility	EWS_196	42.4	Agriculture	0.2	25.0	300.3	Richland	Private
Pipeline Facility	EWS_197	44.4	Agriculture, Developed	0.7	123.3	286.2	Richland	Private
Pipeline Facility	EWS_198	44.4	Agriculture	0.2	40.7	290.1	Richland	Private
Pipeline Facility	EWS_199	44.5	Agriculture	0.2	40.7	288.8	Richland	Private
Pipeline Facility	EWS_200	44.5	Agriculture	0.4	91.6	337.0	Richland	Private
Pipeline Facility	EWS_201	44.9	Agriculture, Developed	0.3	31.4	460.7	Richland	Private
Pipeline Facility	EWS_202	45	Agriculture, Developed	0.3	27.6	459.3	Richland	Private
Pipeline Facility	EWS_203	45.4	Agriculture	0.1	16.3	300.1	Richland	Private
Pipeline Facility	EWS_204	45.5	Agriculture, Developed	0.1	16.5	300.0	Richland	Private
Pipeline Facility	EWS_205	44.9	Agriculture	0.7	124.9	460.0	Richland	Private
Pipeline Facility	EWS_206	45	Agriculture	0.7	124.8	460.0	Richland	Private
Pipeline Facility	EWS_207	45.4	Agriculture	0.3	48.8	300.0	Richland	Private
Pipeline Facility	EWS_208	45.5	Agriculture, Developed	0.3	48.6	300.5	Richland	Private
Pipeline Facility	EWS_209	46.4	Agriculture	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_210	46.5	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_211	46.4	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_212	46.5	Agriculture	0.3	50.0	300.3	Richland	Private
Pipeline Facility	EWS_212_d	47.4	Agriculture	0.1	62.2	140.3	Richland	Private
Pipeline Facility	EWS_212_e	47.3	Agriculture	0.2	54.9	187.3	Richland	Private
Pipeline Facility	EWS_213	47.9	Agriculture	0.4	51.8	300.1	Richland	Private
Pipeline Facility	EWS_214	47.9	Developed	0.1	15.2	300.0	Richland	Private

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_215	48	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_216	48	Developed	0.1	16.5	300.0	Richland	Private
Pipeline Facility	EWS_217	48.3	Agriculture, Developed	0.1	17.0	300.0	Richland	Private
Pipeline Facility	EWS_218	48.4	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_219	48.3	Agriculture, Developed	0.4	142.0	255.7	Richland	Private
Pipeline Facility	EWS_220	48.4	Agriculture	0.3	46.6	300.0	Richland	Private
Pipeline Facility	EWS_221	48.9	Agriculture	0.4	171.8	228.3	Richland	Private
Pipeline Facility	EWS_222	48.8	Agriculture	0.2	46.8	253.2	Richland	Private
Pipeline Facility	EWS_223	48.9	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_224	48.9	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_225	49.9	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_226	49.9	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_227	49.9	Agriculture	0.3	50.0	300.1	Richland	Private
Pipeline Facility	EWS_228	49.9	Agriculture	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_228_b	50.8	Agriculture, Open Water	3.8	112.7	2979.3	Richland	Private
Pipeline Facility	EWS_228_c	50.8	Agriculture, Forest, Open Water	1.5	25.0	2979.2	Richland	Private
Pipeline Facility	EWS_228_d	51.8	Agriculture	3.2	112.6	2539.9	Richland	Private
Pipeline Facility	EWS_228_e	51.4	Agriculture, Open Water	1.7	35.0	2540.3	Richland	Private
Pipeline Facility	EWS_235	51.9	Agriculture	0.3	50.0	300.5	Richland	Private
Pipeline Facility	EWS_236	51.9	Agriculture	0.2	24.8	300.0	Richland	Private
Pipeline Facility	EWS_237	52	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_238	52	Agriculture	0.2	25.0	300.2	Richland	Private
Pipeline Facility	EWS_239	52.9	Agriculture, Developed	0.3	50.0	300.5	Richland	Private
Pipeline Facility	EWS_240	52.9	Agriculture, Developed	0.2	25.0	300.0	Richland	Private
Pipeline Facility	EWS_241	53	Agriculture, Developed	0.3	59.9	319.8	Richland	Private
Pipeline Facility	EWS_242	53	Agriculture, Developed	0.2	25.0	300.2	Richland	Private
Pipeline Facility	EWS_242_b	53.9	Agriculture	0.2	127.5	142.3	Richland	Private

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_249	54.4	Agriculture	0.3	50.0	300.1	Richland	Private
Pipeline Facility	EWS_250	54.4	Agriculture, Developed	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_253	54.4	Agriculture	0.1	20.8	300.0	Richland	Private
Pipeline Facility	EWS_254	54.4	Agriculture	0.1	20.8	300.1	Richland	Private
Pipeline Facility	EWS_273	60.1	Agriculture, Developed, Open Water	0.7	125.9	519.7	Richland	Private
Pipeline Facility	EWS_274	60.1	Agriculture, Developed, Open Water	0.2	40.3	291.0	Richland	Private
Pipeline Facility	EWS_275	60.2	Agriculture, Open Water	0.2	32.0	329.3	Richland	Private
Pipeline Facility	EWS_276	60.1	Agriculture	0.9	183.3	531.0	Richland	Private
Aboveground Facility	EWS_277	60.5	Agriculture, Developed, Open Water	2.4	365.1	516.0	Richland	Private
Pipeline Facility	EWS_278	55.1	Agriculture, Developed	0.8	150.0	300.8	Richland	Private
Pipeline Facility	EWS_279	55.2	Agriculture	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_279_b	55.2	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_280	56.2	Agriculture, Developed	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_280_b	56.2	Agriculture, Developed	0.3	50.0	300.3	Richland	Private
Pipeline Facility	EWS_281	56.3	Agriculture, Developed	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_281_b	56.3	Agriculture, Developed	0.3	49.9	300.0	Richland	Private
Pipeline Facility	EWS_282_b	56.5	Agriculture	0.2	48.3	248.1	Richland	Private
Pipeline Facility	EWS_283	56.5	Agriculture, Developed	1.0	201.5	770.2	Richland	Private
Pipeline Facility	EWS_283_b	56.6	Agriculture	0.6	106.3	303.8	Richland	Private
Pipeline Facility	EWS_284	56.9	Agriculture, Developed	0.9	189.6	400.9	Richland	Private
Pipeline Facility	EWS_284_b	56.9	Agriculture, Developed	0.2	49.3	278.8	Richland	Private
Pipeline Facility	EWS_285	57	Agriculture	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_285_b	57	Agriculture	0.2	25.3	332.1	Richland	Private
Pipeline Facility	EWS_286	58	Agriculture	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_286_b	58	Agriculture	0.3	50.0	300.3	Richland	Private

APPENDIX 8A
Wahpeton Expansion Project
Additional Temporary Workspaces

Project Facility	Additional Temporary Workspaces	Milepost	Existing Land Uses	Area Affected by Construction (acres)	Width (feet)	Length (feet)	County	Land Owner
Pipeline Facility	EWS_287	58.1	Agriculture, Developed	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_287_b	58.1	Agriculture, Developed	0.3	50.0	300.0	Richland	Private
Pipeline Facility	EWS_288	58.5	Agriculture	0.2	141.4	142.9	Richland	Private
Pipeline Facility	EWS_289	59	Agriculture, Developed	0.2	127.8	142.7	Richland	Private
Pipeline Facility	EWS_290	59.6	Agriculture, Developed	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_290_b	59.6	Agriculture, Developed	0.3	50.0	300.3	Richland	Private
Pipeline Facility	EWS_291	59.6	Agriculture	0.2	25.0	300.1	Richland	Private
Pipeline Facility	EWS_291_b	59.6	Agriculture	0.3	50.0	300.0	Richland	Private

APPENDIX 8B
Wahpeton Expansion Project
Access Roads [a, b]

Access Road Name	Milepost	Existing Road Type	Use (TEMP or PERM)	Existing or New	Existing Land Uses	Length (feet)	Width (feet)	Area Affected by Construction (acres)	Area Affected by Operations (acres)
AR_001	0	Dirt/Vegetation	TEMP	Existing, New	Agricultural, Developed	782.99	30	1.0	0.0
AR_001.1	0.7	Dirt/Vegetation	TEMP	New	Agriculture, Developed	353.66	30	0.3	0.0
AR_001.2	0.8	Dirt/Vegetation	TEMP	New	Agriculture	319.28	30	0.3	0.0
AR_002	1.7	Gravel/Dirt	TEMP	Existing, New	Agricultural, Developed	122.24	30	0.2	0.0
AR_002.1	3.6	Dirt/Vegetation	TEMP	New	Agriculture, Developed	224.54	30	0.2	0.0
AR_003	3.7	Dirt/Vegetation	TEMP	Existing, New	Agricultural, Developed	127.22	40	0.1	0.0
AR_004	4.2	Dirt	TEMP	Existing	Agricultural, Developed	59.64	30	0.1	0.0
AR_005	5.1	Dirt/Vegetation	TEMP	New	Agricultural, Developed, Open Water	1317.84	30	1.6	0.0
AR_Kost2	5.2	Dirt	TEMP	Existing	Developed	96.98	39	0.1	0.0
AR_Kost1	5.2	Dirt	TEMP	Existing	Developed	902.16	40	0.8	0.0
AR_006	5.4	Gravel/Dirt	TEMP	Existing	Agricultural, Developed	1097.91	30	0.8	0.0
AR_007	5.9	Dirt/Vegetation	TEMP	Existing, New	Agricultural, Developed	307.38	30	0.3	0.0
AR_007.1	6.6	Dirt/Vegetation	TEMP	New	Agriculture, Developed	65.94	30	0.1	0.0
AR_007.2	6.8	Dirt/Vegetation	TEMP	New	Agriculture, Developed	43.54	40	<0.1	0.0
AR_008	7.2	Dirt/Vegetation	TEMP	Existing	Agricultural, Developed	56.22	30	<0.1	0.0
AR_009	7.4	Vegetation	TEMP	Existing	Agricultural, Developed	77.44	40	0.1	0.0
AR_010	8.2	Dirt/Vegetation	TEMP	Existing	Developed	74.85	30	0.1	0.0
AR_011	8.3	Dirt/Vegetation	TEMP	Existing, New	Agricultural, Developed	252.88	30	0.2	0.0
AR_012	8.7	Dirt/Vegetation	TEMP	Existing	Agricultural, Developed	73.56	30	0.1	0.0
AR_014	10	Dirt/Vegetation	TEMP	Existing	Agricultural	1927.93	30	1.3	0.0
AR_013b	10	Vegetation	TEMP	Existing, New	Agriculture, Wetland	114.96	20	0.1	0.0
AR_015	11.2	Dirt/Vegetation	TEMP	Existing	Agricultural, Developed	47.51	30	0.1	0.0
AR_016	11.6	Dirt/Vegetation	PERM	New	Agricultural, Developed	142.51	40	0.1	0.1
AR_016.1	11.7	Dirt/Vegetation	TEMP	New	Agriculture, Developed	48.73	40	<0.1	0.0
AR_017	13.2	Vegetation	TEMP	New	Agricultural, Developed	88.58	32	0.1	0.0

APPENDIX 8B
Wahpeton Expansion Project
Access Roads [a, b]

Access Road Name	Milepost	Existing Road Type	Use (TEMP or PERM)	Existing or New	Existing Land Uses	Length (feet)	Width (feet)	Area Affected by Construction (acres)	Area Affected by Operations (acres)
AR_018	13.7	Vegetation	TEMP	Existing, New	Agricultural	138.45	30	0.1	0.0
AR_019	14.8	Vegetation	TEMP	New	Agricultural, Open Water	40.00	30	<0.1	0.0
AR_019.1	15.7	Vegetation	TEMP	New	Developed	31.31	30	<0.1	0.0
AR_020	16.2	Dirt/Vegetation	TEMP	New	Agricultural, Developed	81.39	35	0.1	0.0
AR_022	17.1	Dirt	TEMP	New	Agricultural, Developed	84.64	34	0.1	0.0
AR_023	18.3	Vegetation	TEMP	New	Agricultural, Developed	81.79	35	0.1	0.0
AR_023.1	18.8	Vegetation	TEMP	New	Agriculture	76.84	30	0.1	0.0
AR_024	19.3	Vegetation	TEMP	New	Agricultural, Developed, Open Water	89.96	32	0.1	0.0
AR_024.1	20.1	Vegetation	TEMP	New	Agriculture, Developed	64.84	46	0.1	0.0
AR_024.2	20.8	Vegetation	TEMP	New	Agriculture, Developed	49.00	30	<0.1	0.0
AR_042.3	21.8	Vegetation	TEMP	New	Agriculture, Developed	136.93	30	0.1	0.0
AR_Kindred 1	21.8	Vegetation	TEMP	Existing	Agriculture, Developed, Forest	282.48	40	0.3	0.0
AR_025	22.3	Dirt	TEMP	New	Agricultural, Developed	58.67	30	0.1	0.0
AR_026	23.4	Dirt	PERM	New	Agricultural, Developed	143.70	60	0.1	0.1
AR_027	24.1	Dirt	TEMP	New	Agricultural, Developed	531.36	40	0.6	0.0
AR_028	24.2	Dirt	TEMP	New	Agricultural	446.62	40	0.5	0.0
AR_028.1	24.4	Dirt	TEMP	New	Agriculture, Developed	97.08	40	0.1	0.0
AR_029	24.7	Dirt	TEMP	New	Agricultural	120.46	30	0.1	0.0
AR_030	25.7	Vegetation	TEMP	New	Agricultural, Developed	109.39	29	0.1	0.0
AR_032	28.3	Dirt/Vegetation	TEMP	Existing, New	Agricultural	137.31	30	0.1	0.0
AR_033	29.3	Dirt/Vegetation	TEMP	Existing	Agricultural, Open Water	105.70	30	0.1	0.0
AR_032.1	29.3	Dirt/Vegetation	TEMP	Existing, New	Agriculture, Developed	130.53	30	0.1	0.0
AR_034	31.3	Dirt/Vegetation	PERM	New	Agricultural, Developed, Open Water	257.85	30	0.2	0.2
AR_035	32.4	Dirt/Vegetation	TEMP	New	Agricultural, Developed	122.13	30	0.1	0.0

APPENDIX 8B
Wahpeton Expansion Project
Access Roads [a, b]

Access Road Name	Milepost	Existing Road Type	Use (TEMP or PERM)	Existing or New	Existing Land Uses	Length (feet)	Width (feet)	Area Affected by Construction (acres)	Area Affected by Operations (acres)
AR_036	32.4	Dirt/Vegetation	TEMP	New	Agricultural, Developed	100.50	30	0.1	0.0
AR_038	34.5	Dirt/Vegetation	TEMP	New	Agricultural, Open Land, Open Water	748.24	40	0.7	0.0
AR_039	34.5	Gravel	TEMP	Existing	Agricultural, Developed, Forest, Open Land, Open Water	3244.29	30	2.2	0.0
AR_040	36.7	Gravel/Vegetation	TEMP	Existing, New	Agricultural	881.59	66	0.8	0.0
AR_041	36.8	Dirt/Vegetation	TEMP	Existing	Agricultural, Open Land	37.86	30	<0.1	0.0
AR_042	39	Vegetation	TEMP	New	Agricultural	155.55	30	0.2	0.0
AR_043	39.5	Dirt/Vegetation	PERM	New	Agricultural, Developed	250.36	30	0.2	0.2
AR_043.1	40.5	Dirt/Vegetation	TEMP	New	Agriculture, Developed	52.91	30	<0.1	0.0
AR_043.2	41	Dirt	TEMP	New	Agriculture, Developed	2283.15	30	1.6	0.0
AR_043.3	41	Dirt	TEMP	New	Agriculture, Developed	2381.38	30	1.6	0.0
AR_044	42	Dirt/Vegetation	TEMP	Existing, New	Agricultural, Developed	141.42	40	0.2	0.0
AR_045	42.7	Vegetation	TEMP	New	Agricultural, Developed	69.95	42	0.1	0.0
AR_046	43.4	Vegetation	TEMP	Existing	Agricultural	62.01	30	0.1	0.0
AR_046.1	44.1	Dirt/Vegetation	TEMP	Existing	Agriculture, Developed, Open Water	64.86	40	0.1	0.0
AR_047	44.9	Vegetation	TEMP	New	Agricultural	24.64	40	<0.1	0.0
AR_048	45	Vegetation	TEMP	New	Agricultural, Developed	25.51	40	<0.1	0.0
AR_049	46.2	Dirt	TEMP	New	Agricultural, Developed, Open Water	70.51	40	0.1	0.0
AR_050	46.9	Dirt/Vegetation	TEMP	New	Agricultural, Developed	64.71	46	0.1	0.0
AR_051	47.3	Dirt	TEMP	New	Agricultural, Developed, Open Water	64.19	30	0.1	0.0
AR_052	48	Dirt	TEMP	Existing	Developed	37.91	30	<0.1	0.0
AR_053	48.3	Vegetation	TEMP	New	Agricultural, Developed	21.14	30	<0.1	0.0
AR_054	48.7	Dirt/Vegetation	TEMP	New	Agricultural, Developed	65.77	45	0.1	0.0

APPENDIX 8B
Wahpeton Expansion Project
Access Roads [a, b]

Access Road Name	Milepost	Existing Road Type	Use (TEMP or PERM)	Existing or New	Existing Land Uses	Length (feet)	Width (feet)	Area Affected by Construction (acres)	Area Affected by Operations (acres)
AR_055	48.9	Dirt/Vegetation	PERM	New	Agricultural, Developed	115.01	40	0.1	0.1
AR_056	50.9	Dirt/Vegetation/ Gravel	PERM	Existing, New	Agricultural, Developed, Forest, Open Water	2520.63	40	2.3	2.3
AR_058	52	Dirt/Vegetation	TEMP	New	Agricultural, Developed	269.58	30	0.2	0.0
AR_057	52.9	Dirt	TEMP	Existing	Agricultural, Developed	64.85	30	<0.1	0.0
AR_059	53.9	Dirt/Vegetation	TEMP	New	Agricultural, Developed	52.97	30	<0.1	0.0
AR_060.1	56.7	Dirt/Vegetation	TEMP	New	Agriculture, Developed	132.18	30	0.2	0.0
AR_061.1	58	Dirt/Vegetation	TEMP	New	Agriculture, Developed	329.66	30	0.2	0.0
AR_062.3	59	Dirt/Vegetation	TEMP	New	Agriculture, Developed	252.64	30	0.4	0.0
AR_064.1	59.5	Dirt/Vegetation	TEMP	New	Agriculture, Developed	44.63	30	<0.1	0.0
AR_Wahp1	60.5	Dirt/Vegetation	TEMP	New	Developed	64.98	40	0.1	0.0
AR_065	60.5	Dirt/Vegetation	PERM	New	Agricultural, Developed	151.13	60	0.1	0.1

AR = access road; PERM = permanent; TBD = to be determined; TEMP = temporary.

[a] AR_031 and AR_037 were purposely omitted.

[b] Modifications may include: grading; widening up to 40 feet (including the access road entrances off of public roads), placement of mats, gravel, or crushed rock for stability and surface improvement; replacing or installing culverts; and clearing of overhead vegetation, if present.

Attachment 4
Revised Project Overview Map

Figure 1.1-1
Project Overview
Wahpeton Expansion Project
WBI Energy Transmission, Inc.
Cass and Richland County, North Dakota

MPLS M:\Clients\V-X\WBI\Mapleton_to_Wahpeton\ArcGIS\M2W_FERC_Filing_Report\M2W_FERC_Filing_Report.aprx | REVISED: 11/14/2022 | SCALE: 1:340,000 DRAWN BY: RJC