



Northern Natural Gas Company
P.O. Box 3330
Omaha NE 68103-0330
402 398-7200

July 21, 2026

Via eFiling

Ms. Debbie-Anne Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 3
Northern Natural Gas Company
Ventura to Farmington A-Line Abandonment and Capacity Replacement Project (V2F) and
Northern Lights 2027 Expansion Project (NL27)
Docket No. CP26-130-000
§ 375.308(x)

Dear Ms. Reese:

Northern Natural Gas Company (Northern) submits for filing with the Federal Energy Regulatory Commission (FERC) in the above-referenced docket Northern's responses to the data request issued by FERC staff July 13, 2026. FERC's requests and Northern's responses are attached.

Attachments associated with Northern's responses to DR 1 and 3 contain confidential information regarding specific information on the location of cultural resources and proprietary information from the manufacturer, respectively; these attachments have been labeled "**CUI//PRIV --- DO NOT RELEASE (PRIVILEGED).**" Pursuant to 18 CFR section 388.112, Northern requests confidential and privileged treatment of the attachments due to the confidential and proprietary nature of the contents.

The person to be contacted regarding the request for privileged and confidential treatment is as follows:

Donna Martens, Senior Regulatory Analyst
Northern Natural Gas Company
1111 South 103rd Street
Omaha, NE 68124-1000
Telephone: 402-398-7138
Email: donna.martens@nngco.com

Any questions regarding the filing should be directed to the undersigned at (402) 398-7138.

Respectfully submitted,

/signed/ Donna Martens

Donna Martens
Senior Regulatory Analyst

cc: Parties of record

VERIFICATION

STATE OF NEBRASKA)

COUNTY OF DOUGLAS)

LD Stephens, being duly sworn, on oath, states that he is Vice President, Operations, for Northern Natural Gas Company and is duly authorized to make this affidavit; that he has read the foregoing Data Response of such Company and is familiar with the contents thereof; that all the facts therein are true and correct to the best of his knowledge, information and belief.

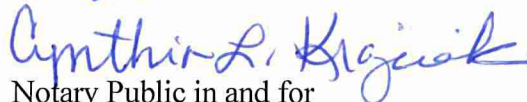
Signed:



LD Stephens
Vice President, Operations

SUBSCRIBED AND SWORN TO, before me, this 21st day of July 2026.




Notary Public in and for
Douglas County, Nebraska

My commission expires: August 23, 2026

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 21 day of July 2026.



Donna Martens
Sr. Regulatory Analyst
Northern Natural Gas
P.O. Box 3330
Omaha, Nebraska 68103-0330
Telephone: (402) 398-7138

Northern Natural Gas Company
Data Response Form For Docket No. CP26-130-000
V2F – NL27

Requesting Party: FERC
Reference No: FERC-DR2-01
Requester's Name: Allison King
Subject: MN SHPO Additional Information

Data Request 1:

Provide a response to the Minnesota State Historic Preservation Office's request for additional information dated June 22, 2026 (FERC Accession No. 202606225276).

Response:

Northern is including the attached letter response, which was submitted to Minnesota State Historic Preservation Office July 20, 2026, and provides the additional information requested or plans for additional surveys. The letter contains site information and is being filed as CUI//PRIV- DO NOT RELEASE.

Posted: 07/21/2026

Responsibility: LD Stephens

Northern Natural Gas Company
Data Response Form For Docket No. CP26-130-000
V2F – NL27

Requesting Party:	FERC
Reference No:	FERC-DR2-02
Requester's Name:	Allison King
Subject:	Updated Table 34-2 (Project Impact Sources)

Data Request 2:

For table 34-2 in Northern's Response to the Environmental Information Request, clarify whether the "Project Impact" column includes existing sources. Provide an updated table 34-2 with separate columns for the impacts from Existing Sources and the Proposed Project Sources. If other changes are required for tables 34-3 and tables 34-4 based on this clarification, provide updated versions of these tables as well.

Response:

The "Project Impact" column in Table 34-1 depicts existing air emissions at the Hugo compressor station, including the existing air emission sources at the compressor station (current operational conditions).

Table 34-2 depicts the air emissions from the Hugo compressor station after completion of the proposed Hugo compressor station uprate project (operational conditions post construction); the "Project Impact" column does not include existing sources. All of the existing air emission sources will be replaced as part of the modification. Further, there is no time when these sources will operate concurrently; therefore, no changes are required to Table 34-2.

Table 34-3 depicts the significant impact level analysis and Table 34-4 depicts the comparison of the pre- and post-construction emissions at the compressor station. No changes to Tables 34-3 and 34-4 are required.

Posted: 07/21/2026

Responsibility: LD Stephens

Northern Natural Gas Company
Data Response Form For Docket No. CP26-130-000
V2F – NL27

Requesting Party: FERC
Reference No: FERC-DR2-03
Requester's Name: Allison King
Subject: Hugo CS – Further Information on
Sound Levels

Data Request 3:

Provide further supporting information explaining how Northern concluded that the modifications to the Hugo Compressor Station would not result in an increase in sound levels at the Noise Sensitive Areas. Provide manufacturer specifications, calculations, etc. to support this conclusion.

Response:

Northern is providing the attached manufacturer's specifications for the existing and proposed turbine as well as the following information supporting Northern's conclusion that the modifications to the Hugo compressor station will not result in an increase in sound levels at the nearby noise sensitive areas (NSAs). Due to the proprietary information provided in the manufacturer's specifications, the documents are being filed as privileged information.

As depicted in Table 3-1 below, Northern compared the noise generated by the existing (Taurus 60 7002) and proposed replacement (Taurus 60 7802) turbines. The sound levels generated by the replacement turbine components are the same as or lower than the sound levels generated by the existing turbine components. The turbine is the only modified sound source, therefore, impacts to overall sound generation is based on the turbine sound generation changes.

Table 3-1 Equipment Sound Pressure Level at 15 meters (50 feet), Full Load

Component	Unit	Octave Band Center Frequency (Hz)									Overall Sound Level, dBA
		31.5	63	125	250	500	1000	2000	4000	8000	
Combustion Inlet ¹	Taurus 60 7002	76	82	88	89	90	92	95	120	112	121
	Taurus 60 7802	69	78	87	87	84	85	89	114	111	116
Combustion Exhaust ²	Taurus 60 7002	88	91	88	91	95	87	80	72	64	94
	Taurus 60 7802	88	91	88	91	95	87	80	72	64	94
Unenclosed Package ³	Taurus 60 7002	81	81	84	86	86	81	79	78	79	88
	Taurus 60 7802	81	81	84	86	86	81	79	78	79	88

¹ Combustion inlet silencer attenuation not represented by manufacturer data.

² Combustion exhaust silencer attenuation not represented by manufacturer data.

³ Turbine package is located within the compressor building.

The L_{eq} sound levels measured in the vicinity of the existing compressor station were then used to estimate the compressor station L_{dn} sound level at each measurement location, as shown in Table 3-2 below, using the following equation:

$$L_{dn} = 10\log_{10}((15/24)10^{Leq (day)/10} + (9/24)10^{(Leq (night)+10)/10})$$

Table 3-2 Sound Measurement Results

Measurement Location	Distance from compressor station, ft	Leq, dBA ²	Ldn, dBA ¹	Date	Time
ML1	160	62	68	5/16/22	9:00:19 PM
ML2	265	58	64	5/16/22	9:18:44 PM
ML3	185	62	69	5/16/22	9:36:56 PM
ML4	100	60	66	5/16/22	10:00:00 PM
ML5	455	44	51	5/16/22	11:09:37 PM
ML6	575	52	59	5/16/22	11:20:20 PM
ML7	460	51	57	5/16/22	10:46:33 PM
ML8B	910	47	54	5/16/22	11:34:15 PM

¹ Ldn is calculated using the equation provided above.

² Represents both day and night Leq sound levels generated by the compressor station

The Ldn sound levels at the measurement locations were then used to estimate the Ldn sound levels at the NSAs located near the compressor station, as shown in Table 3-3 below. The calculation accounts for sound attenuation due to the increase in distance from the measurement location to the NSA using the equations included in the footnote to Table 3-3.

Table 3-3 Estimated Sound Levels at NSAs

NSA	NSA Distance from Compressor Station, ft [D1]	Representative Measurement			Sound Attenuation due to Distance, dB ¹	Estimated Ldn at NSA, dBA ²
		Location	Measurement Distance from Compressor Station, ft [D2]	Ldn, dBA		
NSA08	1015	ML8B	910	54	1	53
NSA14	840	ML1	160	68	14	54
NSA04	705	ML2	265	64	8	55
NSA01	1095	ML3	185	69	15	53
NSA03	1325	ML6	575	59	7	52

¹ Sound attenuation due to distance is calculated using the sound measurement distance from the compressor station (D2) and the NSA distance from the compressor station (D1) using the equation $20 \cdot \log(D1/D2)$

² Ldn at NSA = Ldn at Measurement Location - Sound Attenuation due to Distance

The data presented above supports Northern's conclusion that the proposed modifications to the Hugo compressor station will not increase sound levels at nearby NSAs. Specifically, Northern compared the manufacturer's sound data for the proposed turbine replacement with existing compressor station noise data.

The data and calculations show that sound levels at the Hugo compressor station are expected to be equal to or less than existing sound levels after completion of the Project.

Posted: 07/21/2026

Responsibility: LD Stephens

Northern Natural Gas Company
Data Response Form For Docket No. CP26-130-000
V2F – NL27

Requesting Party: FERC
Reference No: FERC-DR2-04
Requester's Name: Allison King
Subject: Landowner Consultation – Removal
or Abandon In Place

Data Request 4:

Discuss how landowners have been consulted to determine if they want the pipeline abandoned in place or removed. Indicate whether landowners' requests for removal of abandoned facilities would be honored and provide explanations if they would not.

Response:

On March 11, 2026, Northern mailed letters to all landowners associated with the abandonment of the A- and J-lines informing them of the abandonment project and advising them a third-party salvage company will be managing the excavation and removal process of the abandoned pipelines. Landowners will receive a second written notification prior to work beginning in their area and will be given the option to remove or leave the abandoned pipeline in place. Landowner requests for removal of abandoned facilities will be honored.

Posted: 07/21/2026

Responsibility: LD Stephens

Northern Natural Gas Company
 Data Response Form For Docket No. CP26-130-000
 V2F – NL27

Requesting Party: FERC
 Reference No: FERC-DR2-05
 Requester's Name: Allison King
 Subject: Alternatives Compared To Proposed
 Action Table

Data Request 5:

Provide a comparison table quantifying the impacts of each alternative and compare them to those of the proposed action.

Response:

Northern is providing a comparison table that quantifies the impacts and compares them to the proposed action for each system and pipeline route alternative included in Resource Report 10. The justifications for the selection of the proposed pipeline routes versus the original routes reviewed are provided in Resource Report 10. The compression needs to support the system, and pipeline route alternatives are disclosed within Resource Report 10; therefore, only pipeline route alternatives are included within this response.

The lengths for the original pipeline routes described in the filing were based upon an estimated pipeline length, the totals shown in the tables below are calculated lengths from GIS and should be considered accurate.

Figures for the route deviations are attached.

SYSTEM ALTERNATIVES FOR V2F PROJECT

Alternative D1:

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	miles	17.8	17.9
Adjacent to existing ROW	miles	4.8	4.9
Construction ROW ¹	acres	215.1	216.6
Permanent ROW ²	acres	107.6	108.3
Total NWI wetlands crossed	number	35	37
Forested wetlands	feet	1,235	1,247
Emergent wetlands	feet	4,484	4,257
Total waterbodies crossed	number	14	13
Perennial waterbodies	number	3	2
Intermittent waterbodies	number	11	11
PWI Waterway	number	2	5
PWI Wetland	number	0	0

PWI Waterbody	miles	0	0
Residences within 50 feet	miles	0	0
Public Land	miles	1	1
Land Use	miles	18	18
Agricultural	miles	15	16
Forested	miles	0.2	0.2
Open Land	miles	1	1
Residential	miles	0	0

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Alternative R:

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	miles	105.5	17.9
Adjacent to existing ROW	miles	105.5	4.9
Construction ROW ¹	acres	1,278.4	216.6
Permanent ROW ²	acres	639.2	108.3
Total NWI wetlands crossed	number	221	37
Forested wetlands	feet	4,357	1,247
Emergent wetlands	feet	26,808	4,256
Total waterbodies crossed	number	47	13
Perennial waterbodies	number	13	2
Intermittent waterbodies	number	34	11
PWI Waterway	number	13	5
PWI Wetland	number	2	0
PWI Waterbody	miles	1	0
Residences within 50 feet	miles	10	0
Public Land	miles	3.2	1
Land Use	miles	105.5	17.9
Agricultural	miles	88.2	15.7
Forested	miles	1.4	0.2
Open Land	miles	6.3	0.9
Residential	miles	0	0

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Alternative E1:

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	miles	18.4	17.9
Adjacent to existing ROW	miles	8.4	4.9
Construction ROW ¹	acres	223.0	216.6
Permanent ROW ²	acres	111.5	108.3
Total NWI wetlands crossed	number	26	37
Forested wetlands	feet	1,015	1,247
Emergent wetlands	feet	3,959	4,256
Total waterbodies crossed	number	4	13
Perennial waterbodies	number	2	2
Intermittent waterbodies	number	2	11
PWI Waterway	number	3	5
PWI Wetland	number	0	0
PWI Waterbody	miles	0	0
Residences within 50 feet	miles	0	0
Public Land	miles	0.2	1
Land Use	miles	18.4	17.9
Agricultural	miles	15.4	15.7
Forested	miles	0.1	0.2
Open Land	miles	1.7	0.9
Residential	miles	0	0

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Alternative LM:

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	miles	9.6	17.9
Adjacent to existing ROW	miles	2.3	4.9
Construction ROW ¹	acres	116.8	216.6
Permanent ROW ²	acres	58.4	108.3
Total NWI wetlands crossed	number	30	37
Forested wetlands	feet	1,235	1,247
Emergent wetlands	feet	3,417	4,256
Total waterbodies crossed	number	12	13
Perennial waterbodies	number	2	2
Intermittent waterbodies	number	10	11
PWI Waterway	number	2	5
PWI Wetland	number	0	0

PWI Waterbody	miles	0	0
Residences within 50 feet	miles	0	0
Public Land	miles	0.9	1
Land Use	miles	9.6	17.9
Agricultural	miles	7.9	15.7
Forested	miles	0.1	0.2
Open Land	miles	0.9	0.9
Residential	miles	0	0

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

ROUTE ALTERNATIVES

V2F Project

Route Alternative 1 Faribault M500 D-line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	8,884	8,335
Adjacent to existing ROW	feet	0	0
Construction ROW ¹	acres	20.39	19.13
Permanent ROW ²	acres	10.20	9.57
Total field delineated wetlands crossed	number	3	4
Forested wetlands	feet	0	0
Emergent wetlands	feet	570	2623
Total waterbodies crossed	number	1	1
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	1	1
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	0
Public Land	miles	0	0
Land Use	feet	8,884	8,335
Agricultural	feet	8,027	6,821
Forested	feet	48	48
Open Land	feet	130	310
Residential	feet	0	0
Wetland	feet	569	1,050
Industrial/Commercial	feet	110	106
Open Water	feet	0	0
Milepost range (start and end)		N/A	99.85-101.43

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 2 Faribault M500 D-line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	2,232	1,704
Adjacent to existing ROW	feet	0	0
Construction ROW ¹	acres	5.1	3.91
Permanent ROW ²	acres	2.56	1.95
Total field delineated wetlands crossed	number	0	0
Forested wetlands	feet	0	0
Emergent wetlands	feet	0	0
Total waterbodies crossed	number	0	0
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	0	0
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	0
Public Land	miles	0	0
Land Use	feet	2,232	1,704
Agricultural	feet	0	0
Forested	feet	318	220
Open Land	feet	1,895	1,458
Residential	feet	0	0
Wetland	feet	0	0
Industrial/Commercial	feet	19	26
Open Water	feet	0	0
Milepost range (start and end)		N/A	101.82-102.22

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

NL27 Project

Route Alternative 1 Willmar 3rd branch line downstream

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	2,300	2,674
Adjacent to existing ROW	feet	465	977
Construction ROW ¹	acres	10.56	12.25
Permanent ROW ²	acres	5.28	6.13

Total field delineated wetlands crossed	number	1	0
Forested wetlands	feet	0	0
Emergent wetlands	feet	84	0
Total waterbodies crossed	number	0	0
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	0	0
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	1 (CA-24b)
Public Land	miles	0	0
Land Use	feet	2,300	2,674
Agricultural	feet	730	289
Forested	feet	915	0
Open Land	feet	571	0
Residential	feet	0	0
Wetland	feet	84	0
Industrial/Commercial	feet	0	0
Open Water	feet	0	2,385
Milepost range (start and end)		N/A	9.30-9.80

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 2 Willmar 3rd branch line downstream

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	4,088	6,840
Adjacent to existing ROW	feet	2,694	1,043
Construction ROW ¹	acres	18.77	31.33
Permanent ROW ²	acres	9.39	15.68
Total field delineated wetlands crossed	number	4	3
Forested wetlands	feet	0	0
Emergent wetlands	feet	101	78
Total waterbodies crossed	number	0	0
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	0	0
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	1 (CA-29A)
Public Land	miles	0	0
Land Use	feet	4,088	6,840

Agricultural	feet	1,166	5,091
Forested	feet	1,984	991
Open Land	feet	743	576
Residential	feet	0	0
Wetland	feet	101	78
Industrial/Commercial	feet	94	104
Open Water	feet	0	0
Milepost range (start and end)		N/A	9.90-11.16

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 3 Paynesville 2nd branch line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	2,990	2,545
Adjacent to existing ROW	feet	4,311	166
Construction ROW ¹	acres	13.68	11.67
Permanent ROW ²	acres	6.85	5.84
Total field delineated wetlands crossed	number	0	0
Forested wetlands	feet	0	0
Emergent wetlands	feet	0	0
Total waterbodies crossed	number	0	0
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	0	0
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	0
Public Land	miles	0	0
Land Use	feet	2,990	2,545
Agricultural	feet	1,274	921
Forested	feet	0	514
Open Land	feet	1,524	932
Residential	feet	0	0
Wetland	feet	0	0
Industrial/Commercial	feet	192	178
Open Water	feet	0	0
Milepost range (start and end)		N/A	0.84-1.32

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 4 Paynesville 2nd branch line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	4,668	4,363
Adjacent to existing ROW	feet	2,215	0
Construction ROW ¹	acres	21.42	20.09
Permanent ROW ²	acres	10.71	10.03
Total field delineated wetlands crossed	number	0	1
Forested wetlands	feet	0	0
Emergent wetlands	feet	0	222
Total waterbodies crossed	number	2	1
Perennial waterbodies	number	2	1
Intermittent waterbodies	number	0	0
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	0
Public Land	miles	0	0
Land Use	feet	4,668	4,363
Agricultural	feet	695	0
Forested	feet	1,416	718
Open Land	feet	1,384	3,068
Residential	feet	0	315
Wetland	feet	1,173	223
Industrial/Commercial	feet	0	39
Open Water	feet	0	0
Milepost range (start and end)		N/A	0.00-0.80

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 5 Worthington 2nd branch line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	1,473	1,802
Adjacent to existing ROW	feet	2,215	0
Construction ROW ¹	acres	6.77	8.27
Permanent ROW ²	acres	3.38	4.14
Total field delineated wetlands crossed	number	0	0
Forested wetlands	feet	0	0
Emergent wetlands	feet	0	0
Total waterbodies crossed	number	0	4
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	0	4

Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	1 (JA-012A)	0
Public Land	miles	0	0
Land Use	feet	1,473	1,802
Agricultural	feet	1,473	1,802
Forested	feet	0	0
Open Land	feet	0	0
Residential	feet	0	0
Wetland	feet	0	0
Industrial/Commercial	feet	0	0
Open Water	feet	0	0
Milepost range (start and end)		N/A	20.55-20.90

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Route Alternative 6 Alexandria 2nd branch line

Environmental Factor	Unit	Original Route	Proposed Route
Total Length	feet	8,154	6,630
Adjacent to existing ROW	feet	2,215	0
Construction ROW ¹	acres	37.34	30.43
Permanent ROW ²	acres	18.69	15.22
Total field delineated wetlands crossed	number	2	3
Forested wetlands	feet	0	35
Emergent wetlands	feet	2,897	1,043
Total waterbodies crossed	number	1	1
Perennial waterbodies	number	0	0
Intermittent waterbodies	number	1	1
Residences within 50 feet of construction work area	number	0	0
Cultural resources crossed	number	0	0
Public Land	miles	0	0
Land Use	feet	8,154	6,630
Agricultural	feet	3,841	1,579
Forested	feet	84	1,288
Open Land	feet	1,303	1,745
Residential	feet	0	867
Wetland	feet	2,897	1,078
Industrial/Commercial	feet	29	73
Open Water	feet	0	0

Milepost range (start and end)		N/A	16.80-18.07
--------------------------------	--	-----	-------------

¹Construction ROW based on 100 feet

²Permanent ROW based on 50 feet

Posted: 07/21/2026

Responsibility: LD Stephens

U:\1726117260813\03_data\gis_cad\gis\ArcPro\17260813_NNG_VenturaFarmington_ResourceReports.aprx Revised: 2026-01-29 By: jmarly

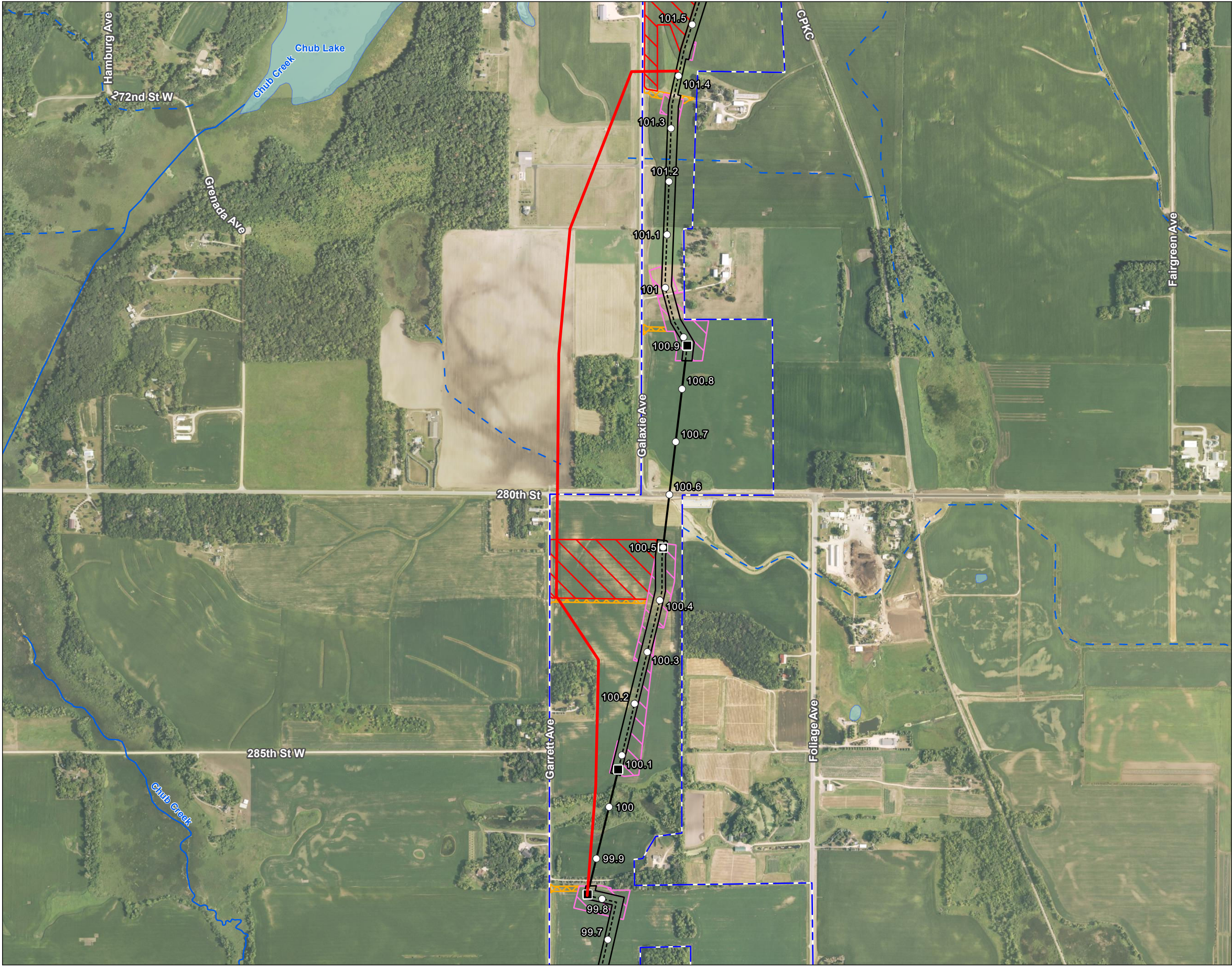


Figure No. **10-1**

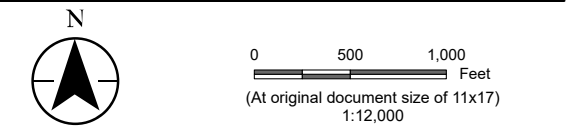
Title
**Route Alternative 1
V2F - Faribault M500 D-Line**

Client/Project
Northern Natural Gas
Ventura to Farmington A-Line Abandonment & Capacity Replacement Project

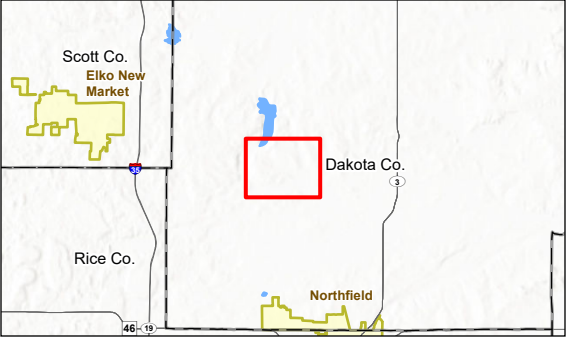
Project Location
Dakota County, Minnesota

172608813

Prepared by JM on 2025-10-06
TR by JL on 2025-10-27
IR by SK on 2026-01-28



- Legend
- Environmental Survey Boundary
 - Existing Lot
 - Temporary Workspace
 - Extra Temporary Workspace
 - Staging Area
 - Temporary Access Road
 - Alternative Route
 - Proposed Pipeline
 - Mile Post
 - HDD
- National Hydrography Dataset
- Perennial Stream
 - Intermittent Stream
 - Ephemeral Stream
 - Canal/Ditch
 - Waterbody



Notes

- Coordinate System: NAD 1983 UTM Zone 15N
- Data Sources: Stantec, Esri, USCB, USGS, MNDNR
- Background: 2023 NAIP

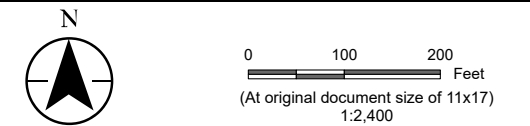


Figure No.
10-2

Title
**Route Alternative 2
V2F - Faribault M500 D-Line**

Client/Project
Northern Natural Gas
Ventura to Farmington A-Line Abandonment & Capacity
Replacement Project

Project Location Prepared by JM on 2025-10-06
 Dakota County, Minnesota TR by JL on 2025-10-27
 IR by SK on 2026-01-28

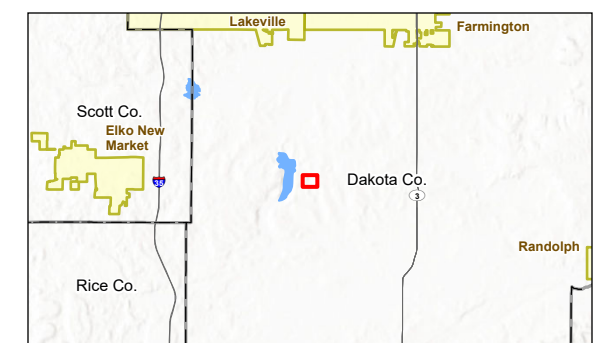


Legend

-  Environmental Survey Boundary
-  Temporary Workspace
-  Extra Temporary Workspace
-  Temporary Access Road
-  Alternative Route
-  Proposed Pipeline
-  Mile Post
-  HDD

National Hydrography Dataset

-  Perennial Stream
-  Intermittent Stream
-  Ephemeral Stream
-  Canal/Ditch
-  Waterbody



Notes

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, Esri, USCB, USGS, MNDNR
 3. Background: 2023 NAIP



U:\172609138\03_data\gis_cad\gis\ArcPro\172609138_NNG_NL2027_ResourceReports.aprx Revised: 2026-02-05 By: jmarly

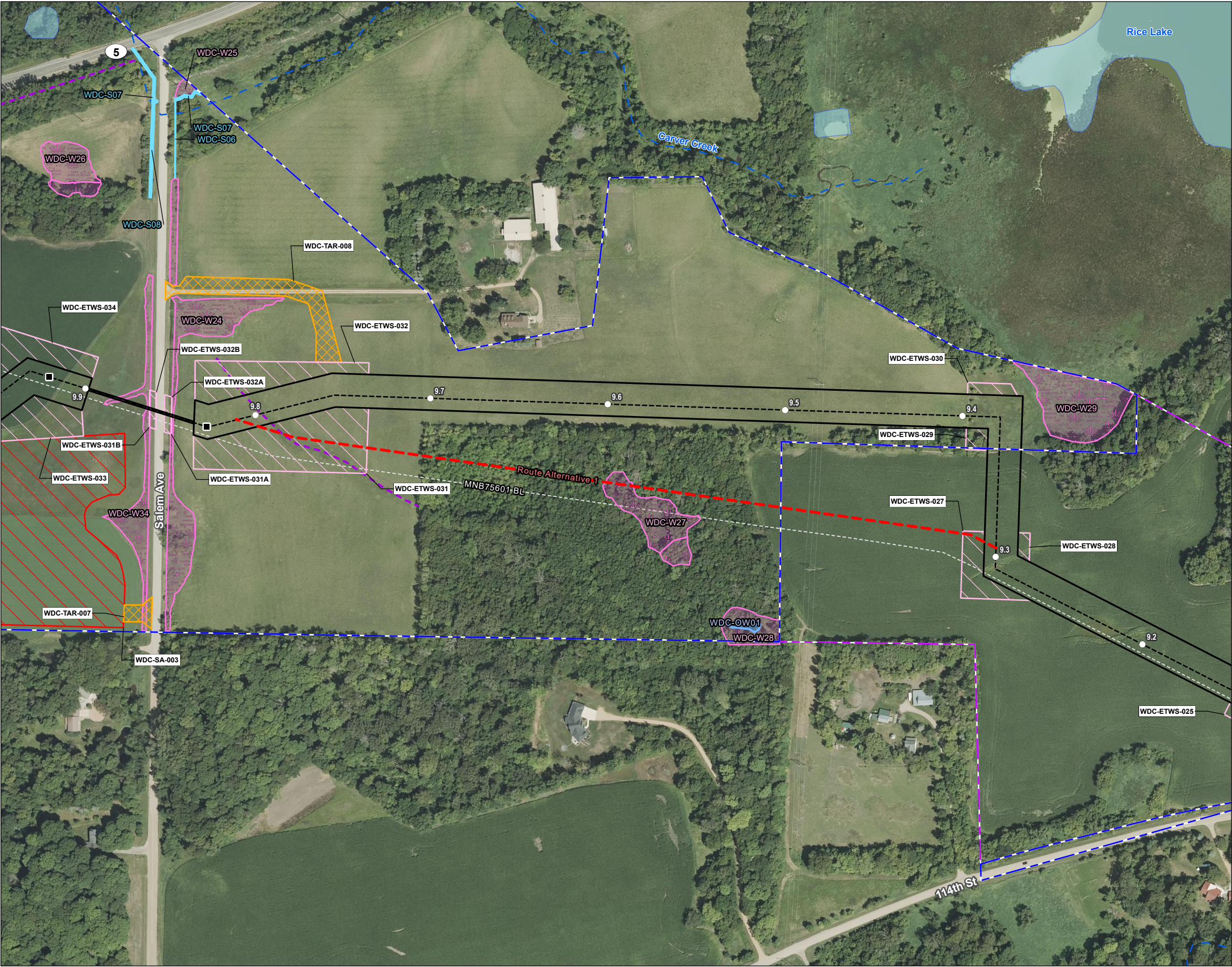


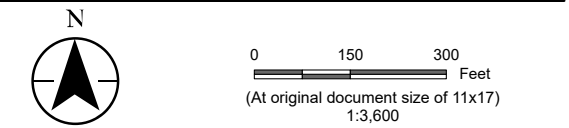
Figure No.
10-3

Title
**Route Alternative 1
NL27 - Willmar 3rd Branch Line Downstream**

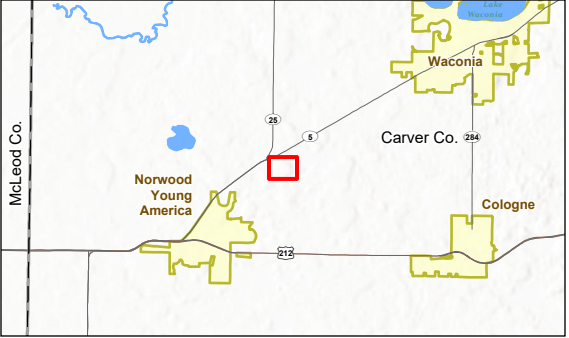
Client/Project
Northern Natural Gas
Northern Lights 2027
Expansion Project

Project Location
Carver County, Minnesota

Prepared by JM on 2025-12-15
TR by SF on 2026-01-15
IR by SK on 2026-01-15



- Legend
- Environmental Survey Boundary
 - Environmental Survey Boundary To Be Surveyed
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - Proposed Pipeline
 - Existing Pipeline
 - Route Alternative
 - Mile Post
 - HDD
 - Upland Drainage Feature
 - Field Delineated Waterway
 - Field Delineated Waterway
 - Field Delineated Open Water
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

- Coordinate System: NAD 1983 UTM Zone 15N
- Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
- Background: 2023 NAIP

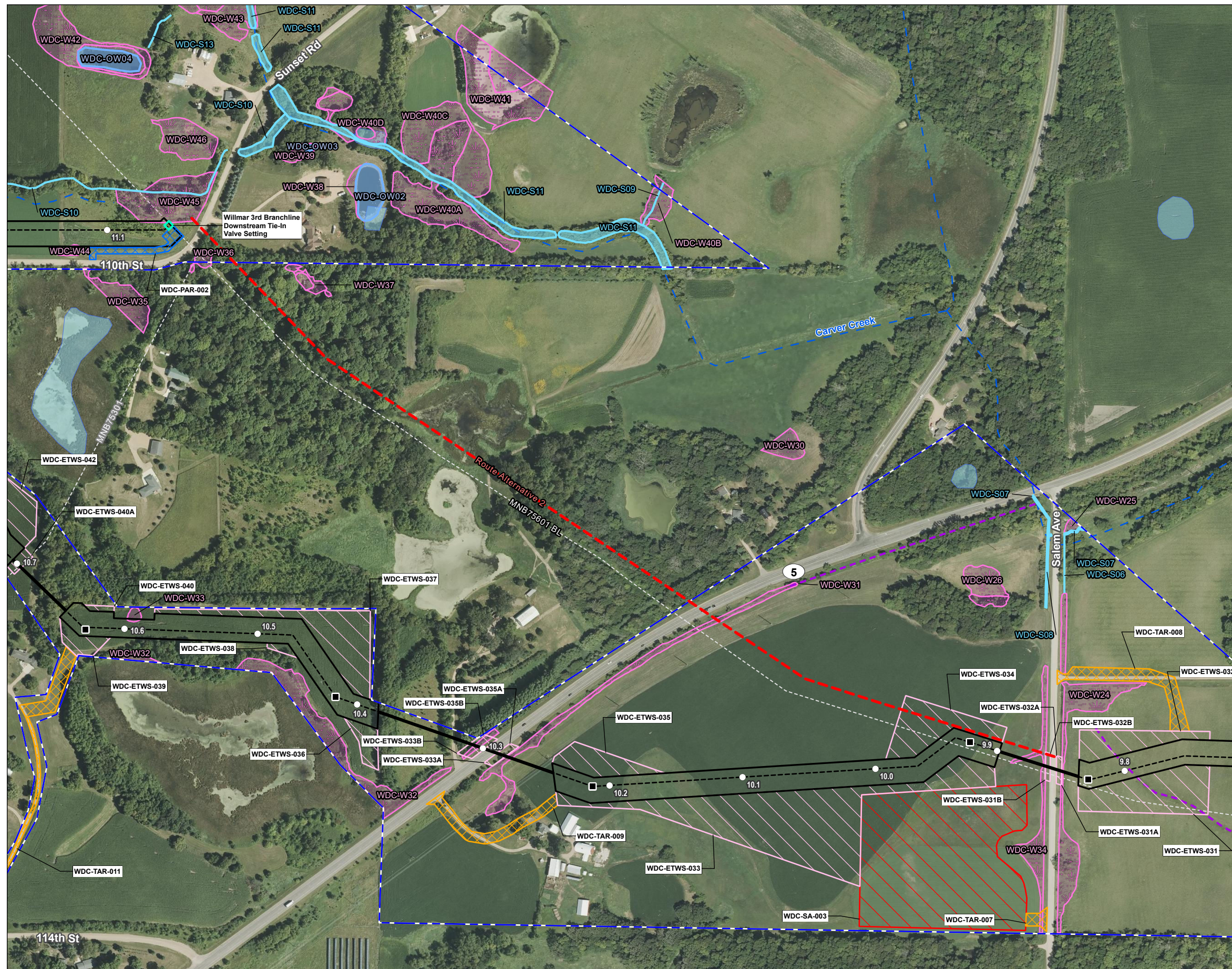
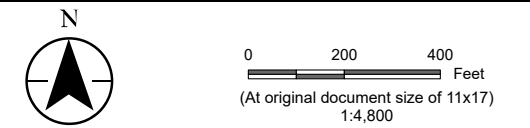


Figure No.	10-4
Title	Route Alternative 2 NL27 - Willmar 3rd Branch Line Downstream

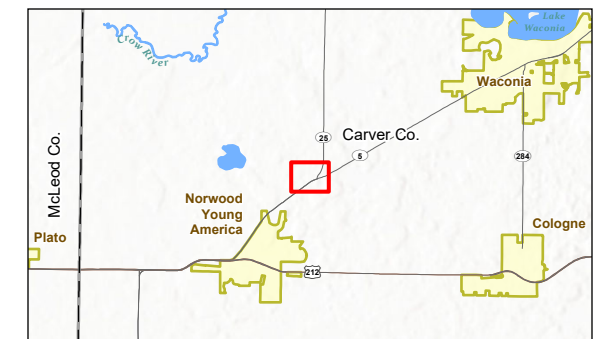
Client/Project	172609138
Northern Natural Gas	
Northern Lights 2027	
Expansion Project	

Project Location Carver County, Minnesota	Prepared by JM on 2025-12-15 TR by SF on 2026-01-15 IR by SK on 2026-01-15
---	--



Legend

- Environmental Survey Boundary
- Proposed Facility
- Permanent Access Road
- Temporary Workspace
- Extra Temporary Workspace
- Temporary Access Road
- Staging Area
- Proposed Pipeline
- Existing Pipeline
- Route Alternative
- Mile Post
- HDD
- Upland Drainage Feature
- Field Delineated Waterway
- Field Delineated Waterway
- Field Delineated Open Water
- Field Delineated Wetland
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
3. Background: 2023 NAIP

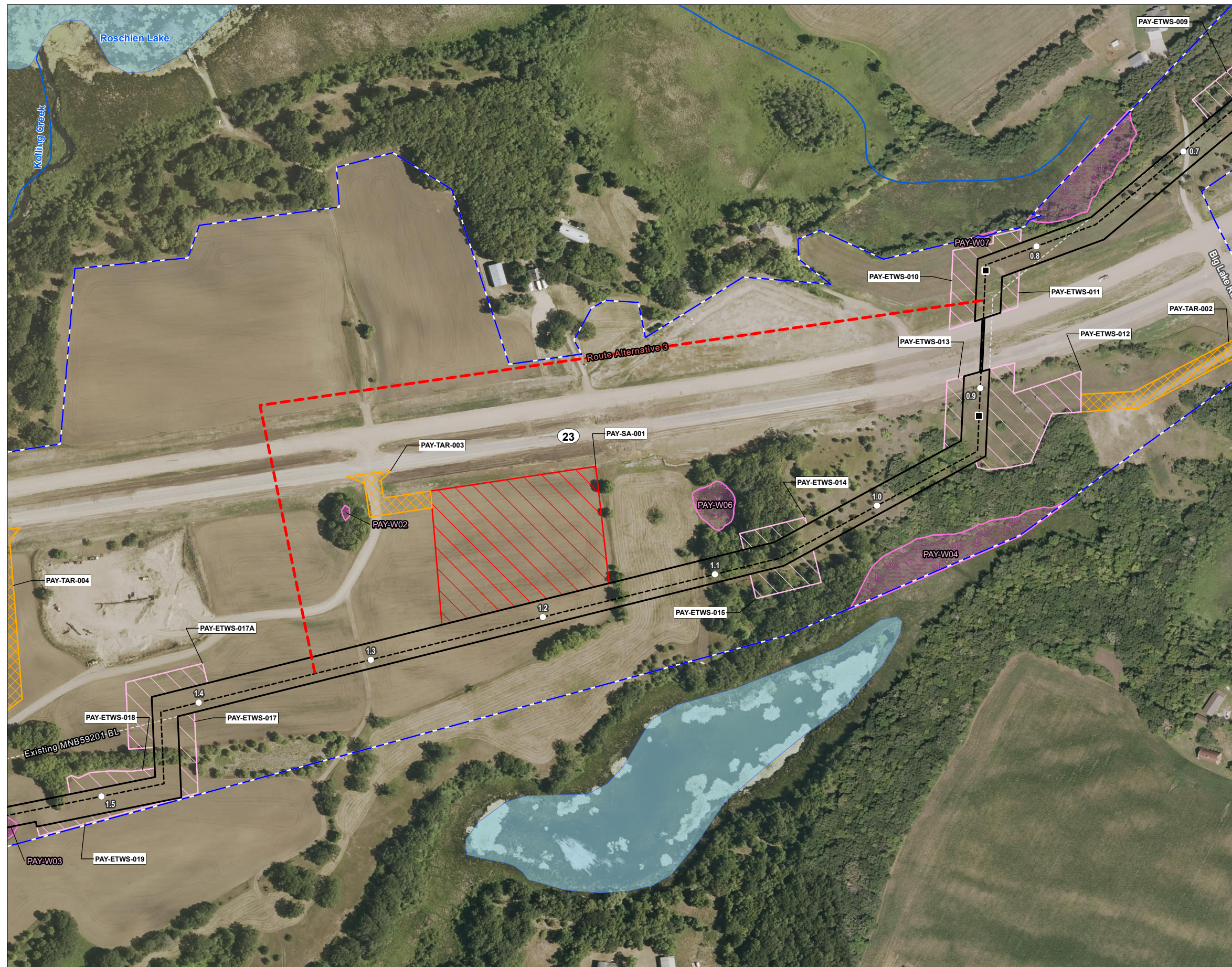


Figure No.

10-5

Title
**Route Alternative 3
NL27 - Paynesville 2nd branch line**

Client/Project
Northern Natural Gas
Northern Lights 2027
Expansion Project

172609138

Project Location
Stearns County, Minnesota

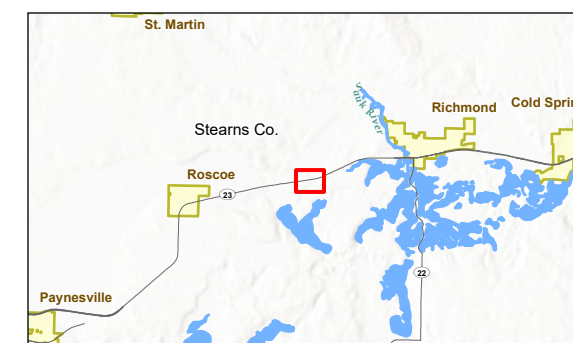
Prepared by JM on 2025-12-15
TR by SF on 2026-01-15
IR by SK on 2026-01-15



0 150 300 Feet
(At original document size of 11x17)
1:3,600

Legend

-  Environmental Survey Boundary
-  Temporary Workspace
-  Extra Temporary Workspace
-  Temporary Access Road
-  Staging Area
-  Proposed Pipeline
-  Existing Pipeline
-  Route Alternative
-  Mile Post
-  HDD
-  Field Delineated Wetland
-  National Hydrography Dataset
-  Perennial Stream
-  Intermittent Stream
-  Canal/Ditch
-  Waterbody



Notes

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
 3. Background: 2023 NAIP



Page 3 of 6

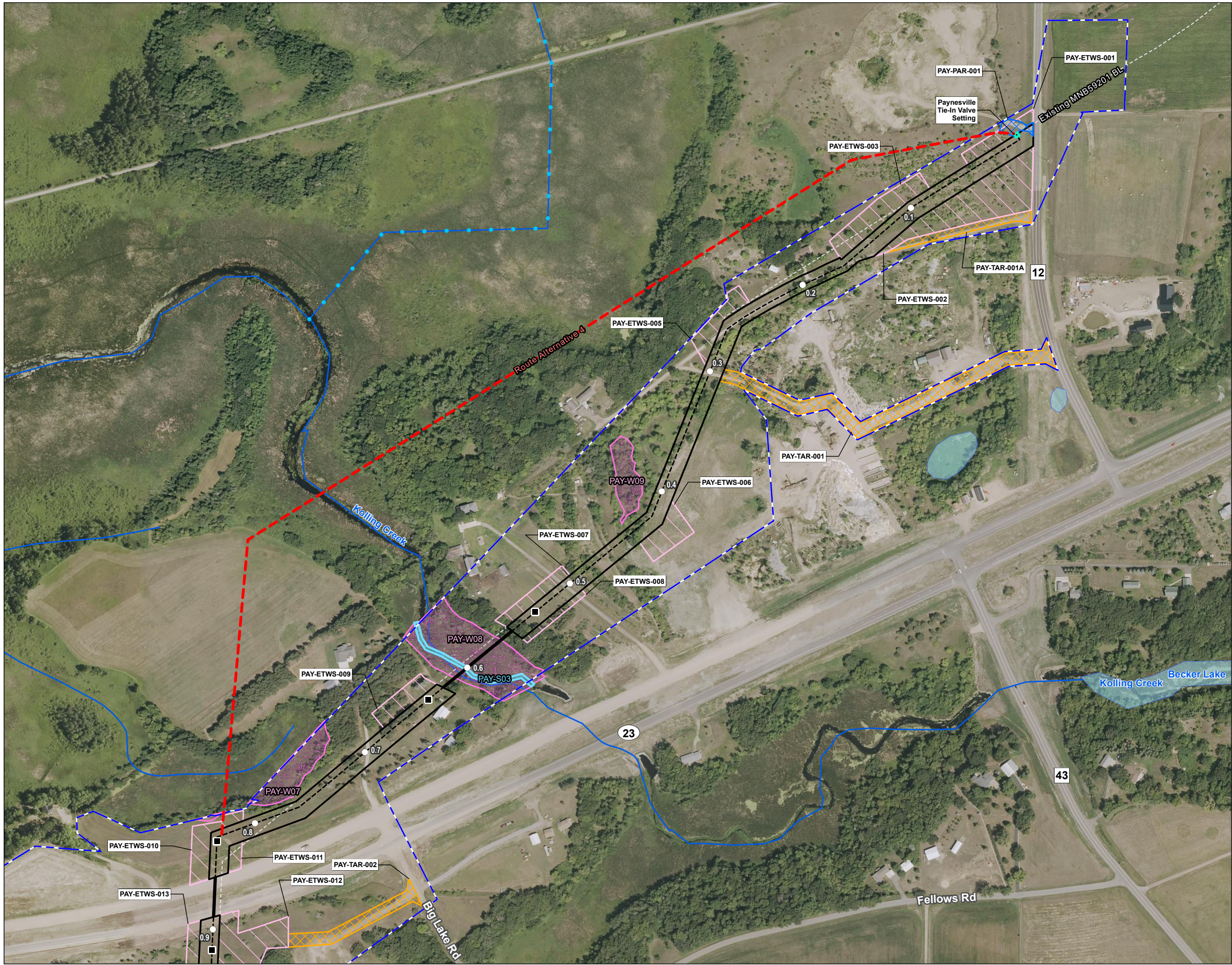


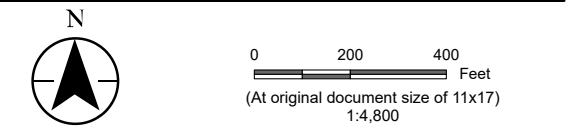
Figure No.
10-6

Title
**Route Alternative 4
NL27 - Paynesville 2nd branch line**

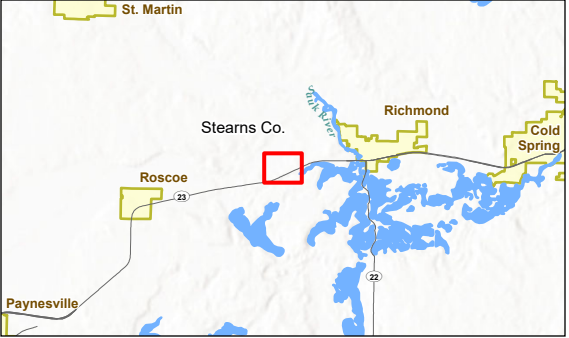
Client/Project
Northern Natural Gas
Northern Lights 2027
Expansion Project

Project Location
Stearns County, Minnesota

Prepared by JM on 2025-12-15
TR by SF on 2026-01-15
IR by SK on 2026-01-15



- Legend
- Environmental Survey Boundary
 - Proposed Facility
 - Permanent Access Road
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Proposed Pipeline
 - Existing Pipeline
 - Route Alternative
 - Mile Post
 - HDD
 - Field Delineated Waterway
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
3. Background: 2023 NAIP

U:\172609138\03_data\gis_cad\gis\ArcPro\172609138_NNG_NL2027_ResourceReports.aprx Revised: 2026-02-05 By: jmarly



Figure No.
10-7

Title
**Route Alternative 5
NL27 - Worthington 2nd branch line**

Client/Project
Northern Natural Gas
Northern Lights 2027
Expansion Project

Project Location
Jackson County, Minnesota

172609138

Prepared by JM on 2025-12-15
TR by SF on 2026-01-15
IR by SK on 2026-01-15

N

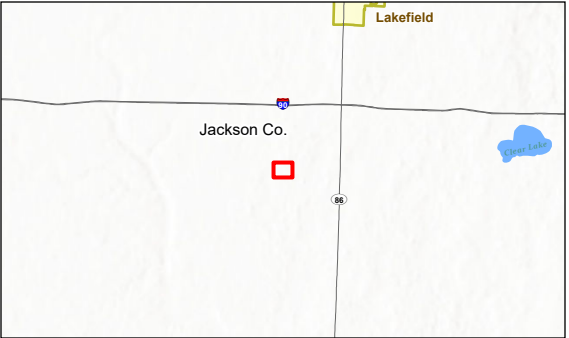
0 100 200 Feet
(At original document size of 11x17)
1:2,400

Legend

- Environmental Survey Boundary
- Temporary Workspace
- Extra Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Route Alternative
- Mile Post
- Upland Drainage Feature

National Hydrography Dataset

- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



Notes

- Coordinate System: NAD 1983 UTM Zone 15N
- Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
- Background: 2023 NAIP

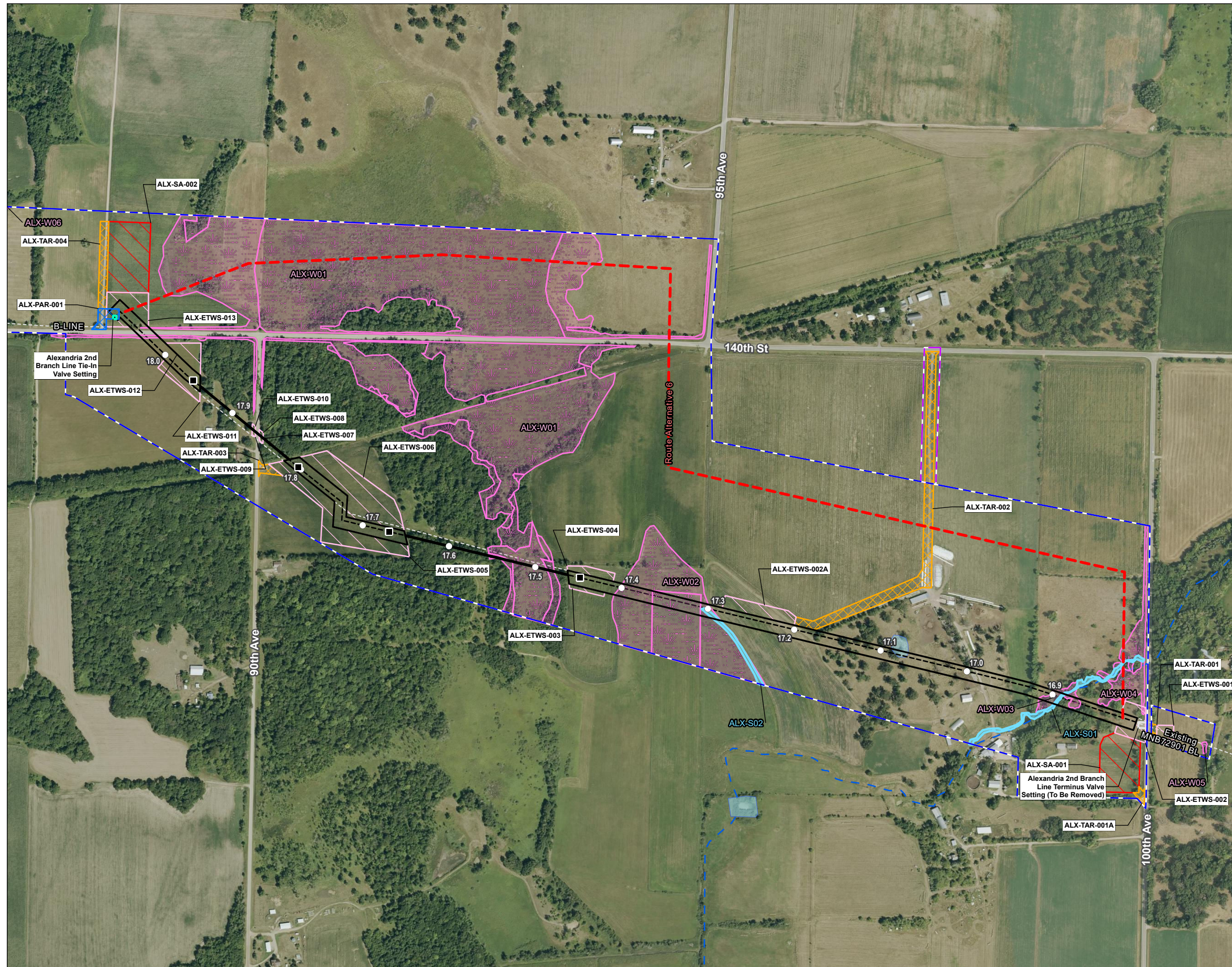


Figure No.

10-8

Title
Route Alternative 6
NL27 - Alexandria 2nd branch line

Client/Project
Northern Natural Gas
Northern Lights 2027
Expansion Project

172609138

Project Location
Morrison County, Minnesota

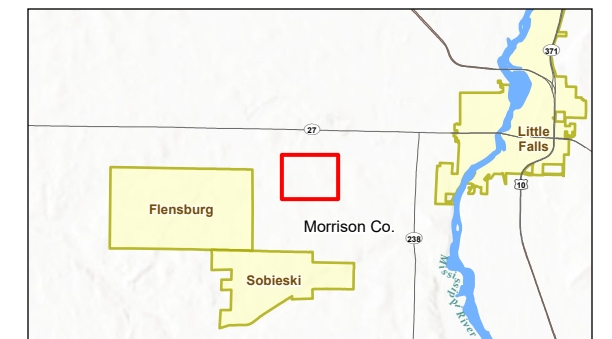
Prepared by JM on 2025-12-15
TR by SF on 2026-01-15
IR by SK on 2026-01-15



0 300 600 Feet
(At original document size of 11x17)
1:7,200

Legend

- | | |
|------------------------------|--|
| | Environmental Survey Boundary |
| | Environmental Survey Boundary To Be Surveyed |
| | Existing Facility |
| | Proposed Facility |
| | Permanent Access Road |
| | Temporary Workspace |
| | Extra Temporary Workspace |
| | Temporary Access Road |
| | Staging Area |
| | Proposed Pipeline |
| | Existing Pipeline |
| | Route Alternative |
| | Mile Post |
| | HDD |
| | Field Delineated Waterway |
| | Field Delineated Wetland |
| National Hydrography Dataset | |
| | Perennial Stream |
| | Intermittent Stream |
| | Canal/Ditch |
| | Waterbody |



Notes

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, Northern Natural Gas, Esri, USCB, USGS
 3. Background: 2023 NAIP



Page 6 of 6