

NuStar Pipeline Relocation Project-Cass County

Reclamation Inspection Report

Docket Number: PU-20-381

Prepared for North Dakota Public Service Commission



December 2023

Reclamation Inspection Report

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1 Executive Summary

The North Dakota Public Service Commission (PSC) retained Barr Engineering Co. (Barr) to complete a reclamation inspection for the construction of the North System Pipeline Relocation project in Cass County, North Dakota (ND), constructed by NuStar Pipeline Operating Partnership L.P. (NuStar). The purpose of the inspections is to ensure the project is constructed in compliance with siting laws and rules and the applicable PSC Orders for the project.

The reclamation inspection was conducted on December 7, 2023. The inspection included observations of the reclaimed areas which were located almost entirely on ground currently in agricultural production. Wetland areas and roadways were HDD bored with minimal impacts to vegetation. No major issues were observed. Overall, reclamation efforts of the project are satisfactory and appeared to have been completed according to Natural Resources Conservation Service (NRCS) recommendations. The Project is in compliance with applicable siting laws, rules, and PSC orders.

2 Background and Scope

2.1 Introduction

The North System Pipeline is a 10-inch pipeline originating at the Marathon Petroleum refinery located in Mandan, North Dakota that carries refined petroleum products to Fargo, North Dakota, and locations further east. A section of the pipeline, 2.21 miles long, was relocated to go south from the project start point, then turn west until it reaches the project end point. Refer to project siting application for detailed route information.

The pipe for the Project is designed to carry up to 3,000 barrels per hour of refined petroleum products (gasoline, diesel, etc.). The maximum allowable operating pressure for each pipeline is 1,440 pounds per square inch gauge (psig), at a design temperature of 100 degrees Fahrenheit. The Project is under the jurisdiction of the North Dakota PSC, which issued its Finding of Fact, Conclusion of Law, and Order in Case No. PU-20-381 on January 6, 2021, granting Certificates of Corridor Compatibility No. 220, and Route Permit No. 230 for the Project.

Construction for the Project began in June 2021 and was completed in August 2022.

2.2 Regulatory Purpose and Need

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) charges the Public Service Commission with determining that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of citizens of North Dakota. Inspections during construction ensure that such projects are built in compliance with the siting laws (North Dakota Century Code Chapter 49-22) and rules (North Dakota Administrative Code Article 69-06) and the applicable Commission Orders.

2.3 Scope of Work

The North Dakota Public Service Commission retained Barr Engineering Co. to perform a reclamation inspection of the Project. Barr subcontracted with Meadowlark Environmental, LLC (Meadowlark) to complete the reclamation inspection. Barr's scope of work was to complete and document an on-site reclamation inspection upon completion of a minimum of one growing season after the construction phase of the project to verify the project was constructed in compliance with the siting laws, rules, and applicable Commission Orders and to determine whether the area affected by construction activities has been restored to as near as practicable to the condition as it existed prior to the beginning of construction, including reestablishment of desired plant species where applicable. This report contains site visit observations and a summary of findings and issues that should be addressed for the Project to be considered complete and in full compliance.

3 Findings of Site Inspection

3.1 Methods

Zach Peterson, Project Manager/Field Inspector for Meadowlark visited the Project site on December 7, 2023, to conduct the reclamation inspection. The site was visually inspected by walking the ROW and driving to areas that the pipeline was HDD bored under roadways. Photos (iPhone 12) were taken with a GIS overlay and without the overlay at observation points to record the geographic locations of the observation points visited during the inspection.

3.2 On-Site Inspection Observations

Mr. Peterson arrived on-site where the Project intersects 166th Ave SE and proceeded westward on foot through the harvested crop field in Section 9, Township 139 North, Range 050 West to the location where the Project turns north for approximately 0.5 miles to the NuStar Mapleton Pump Station. This portion of the Project ran through a harvested sunflower field, and across an intermittent stream that ran generally north through the field. The pipeline was HDD bored in an east and west direction underneath the intermittent stream and no visible impacts to soil or vegetation was noted. The pipeline was also HDD bored in a north and south direction for the northernmost 0.25 miles of the Project to avoid impacts with a drain associated with the Fargo-Moorhead Diversion Channel project that was being constructed at the time of the reclamation inspection. No issues were noted along the Project ROW in Section 9, Township 139 North, Range 050 West. The ROW areas appeared similar to the adjacent crop field and no impacts to the intermittent stream were noted.

Mr. Peterson proceeded on foot along the ROW running east of 166th Ave SE in Section 10, Township 139 North, Range 050 West and terminating east of 38th St W in Section 11, Township 139 North, Range 050 West. The pipeline was HDD bored in an east and west direction underneath 166th Ave SE. The pipeline was also HDD bored from the east side of 38th St W, running west across the road approximately 0.5 miles to avoid impacts with the Fargo-Moorhead Diversion Channel Project. The ROW located in Sections 10 and 11, Township 139 North, Range 050 West is located entirely in agricultural land currently in crop production. No issues were noted to soils or vegetation in the roadway ditches and all areas of the ROW appeared similar to the adjacent crop field.

4 Issues to Resolve and Recommendations

The reclamation inspection of the NuStar Pipeline Relocation Project verified that the project is constructed in compliance with the siting laws, rules, and applicable Commission Orders. No major issues were observed during the reclamation inspection. However, Meadowlark makes the following recommendations to prevent potential issues at the project site:

Potential Issues	Recommendations
Soil Conditions	Monitor the soil conditions as agricultural production resumes and the Fargo-Moorhead Diversion Channel is constructed.

5 Signatures

The services performed by Barr staff, and its subcontractor Meadowlark, for this project have been conducted in a manner consistent with the technical skill and degree of care exercised by professionals currently practicing in this discipline under similar time and budget constraints. Findings and recommendations represent our professional judgement and are based on available information and accepted practices. No warranty is implied or expressed beyond this.



Andrew Unbehaun, Project Manager

12/22/2023

Date



Zach Peterson, Inspector

12/21/2023

Date



Appendices

Appendix A

Photo Log and Observation Maps



On-Site Photographs

NuStar Pipeline Relocation Project- Cass County

 <p>☀ 93°E (T) ● 46°51.898'N, 96°59.403'W ±13ft ▲ 921ft</p>  <p>07 Dec 2023, 09:07:24</p>	<p>Photo #: 1</p> <p>Direction: East</p> <p>Description: Pipeline bored underneath 166th Ave SE</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864967</p> <p>Longitude: -96.990050</p>
 <p>☀ 270°W (T) ● 46°51.897'N, 96°59.404'W ±13ft ▲ 918ft</p>  <p>07 Dec 2023, 09:07:30</p>	<p>Photo #: 2</p> <p>Direction: West</p> <p>Description: Pipeline running west through harvest sunflower field.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864950</p> <p>Longitude: -96.990067</p>

On-Site Photographs

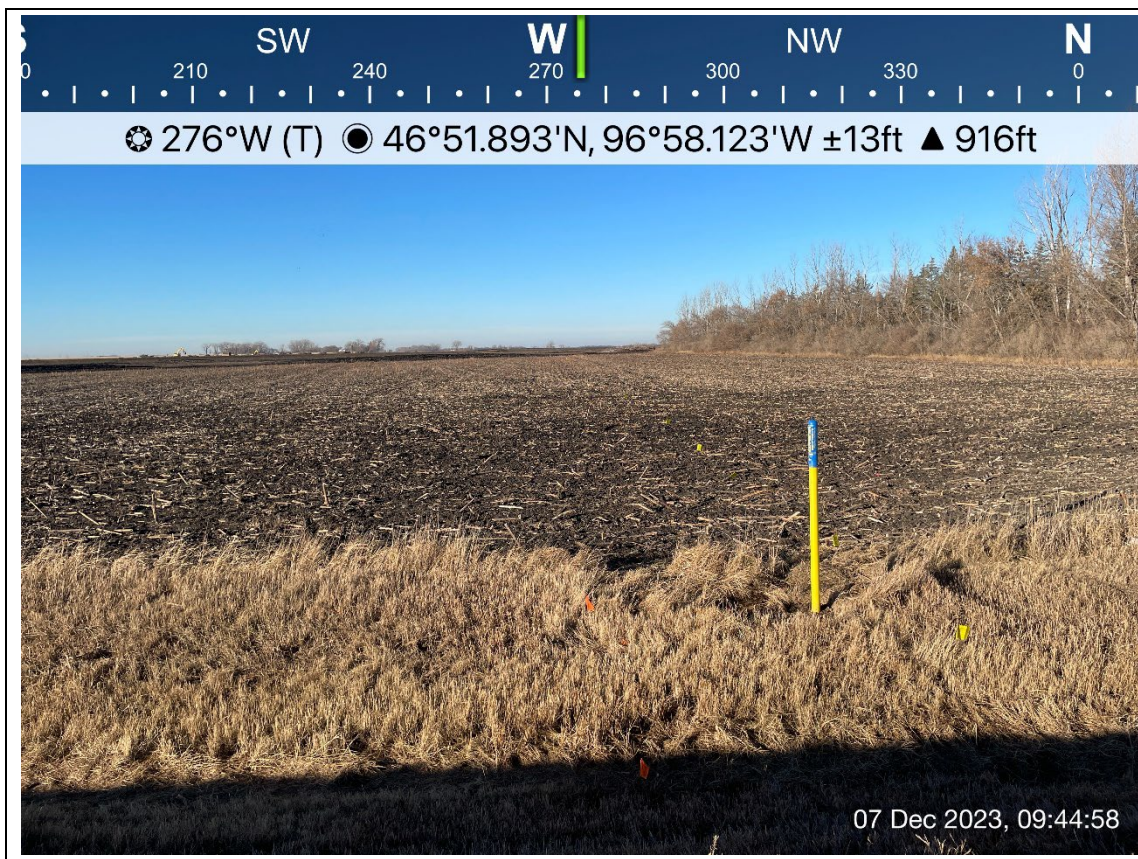
NuStar Pipeline Relocation Project- Cass County

<div style="background-color: #1a3d4d; color: white; padding: 5px;"> <div style="display: flex; justify-content: space-between; font-weight: bold; font-size: 1.2em;"> SW W NW N </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 210 240 270 300 330 0 </div> </div> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 5px;"> <p>☀ 284°W (T) ● 46°51.894'N, 96°59.758'W ±13ft ▲ 916ft</p> </div>  <p style="text-align: right; font-size: 0.8em; color: #ccc;">07 Dec 2023, 09:14:35</p>	<p>Photo #: 3</p> <p>Direction: West</p> <p>Description: Pipeline bored underneath intermittent stream.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864900</p> <p>Longitude: -96.995967</p>
<div style="background-color: #1a3d4d; color: white; padding: 5px;"> <div style="display: flex; justify-content: space-between; font-weight: bold; font-size: 1.2em;"> W NW N NE </div> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 270 300 330 0 30 60 </div> </div> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 5px;"> <p>☀ 343°N (T) ● 46°51.876'N, 97°0.167'W ±13ft ▲ 915ft</p> </div>  <p style="text-align: right; font-size: 0.8em; color: #ccc;">07 Dec 2023, 09:23:37</p>	<p>Photo #: 4</p> <p>Direction: North</p> <p>Description: Pipeline running north through harvested sunflower field towards NuStar Mapleton Pump Station.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864600</p> <p>Longitude: -97.002783</p>

On-Site Photographs



NuStar Pipeline Relocation Project- Cass County

	<p>Photo #: 5</p> <p>Direction: East</p> <p>Description: Pipeline running through harvested soybean field west of 166th Ave SE.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864917</p> <p>Longitude: -96.989817</p>
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	<p>Photo #: 6</p> <p>Direction: West</p> <p>Description: Pipeline bored underneath 38th St W.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864883</p> <p>Longitude: -96.968717</p>
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On-Site Photographs

NuStar Pipeline Relocation Project- Cass County

<p>S 80 SW 210 240 W 270 NW 330 N 0</p> <p>☀ 273°W (T) ● 46°51.892'N, 96°58.122'W ±13ft ▲ 913ft</p>  <p>07 Dec 2023 09:45:05</p>	<p>Photo #: 7</p> <p>Direction: West</p> <p>Description: Pipeline running west of 38th St W through harvested sunflower field.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864867</p> <p>Longitude: -96.968700</p>
<p>NE 30 60 E 90 SE 120 150 S 180</p> <p>☀ 101°E (T) ● 46°51.893'N, 96°58.118'W ±13ft ▲ 918ft</p>  <p>07 Dec 2023 09:45:22</p>	<p>Photo #: 8</p> <p>Direction: East</p> <p>Description: Pipeline running east of 38th St W to termination point in harvested sunflower field.</p> <p>Observer: Zach Peterson</p> <p>Date: 12/7/2023</p> <p>Latitude: 46.864883</p> <p>Longitude: -96.968633</p>

