Basin Electric Antelope Valley to Neset 345kV Transmission Line

Williams County, North Dakota

Topsoil Inspection Report

Docket Number: PU-24-236

Prepared for North Dakota Public Service Commission

October 2024

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Topsoil Inspection Report
Meadowlark Environmental, LLC
Zach Peterson, Project Manager

234 West Century Avenue
Bismarck, ND 58503
701.255.5460
www.barr.com

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October 2024

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1 Executive Summary

The North Dakota Public Service Commission (PSC) retained Meadowlark Environmental, LLC (Meadowlark) to complete topsoil inspection for the construction of the Basin Electric Antelope Valley to Neset 345kVTransmission Line-Springbrook Substation in Williams County, North Dakota (ND), constructed by Basin Electric, LLC. The purpose of the inspection is to ensure the project is constructed in compliance with siting laws and rules and the applicable PSC Orders for the project.

The topsoil inspection was conducted on October 11, 2024, by Zach Peterson with Meadowlark Environmental, LLC. The inspection occurred during the start of construction activities to observe the removal of topsoil and segregation from subsoil. Construction began with the clearing of topsoil from the location of Springbrook Substation located in Section 36, T156N, R100W in Williams County, North Dakota. The station is located in a relatively flat portion of cropland with some small depressional wetlands present. Graders and scrapers worked in tandem to strip topsoil in incremental layers from the stubble field, starting with the perimeter of the substation and working inwards. Equipment operators demonstrated the necessary skill for proper topsoil removal and knowledge of topsoil segregation requirements. The stripped topsoil was moved into earthen berms along the North, South, and West sides of the substation. No subsoil was being removed for the construction of the substation. No major issues were observed.

2 Background and Scope

2.1 Introduction

The 197-mile Antelope Valley Station (AVS) to Neset 345-kV Transmission Line was constructed and has been in operation since 2016. Additional facilities include a new 345/115-kV load-serving substation near Williston, North Dakota known as the Springbrook Substation. Two new 345-kV structures to tie the existing AVS-Neset 345-kV transmission to the proposed Springbrook Substation and a 250-foot microwave tower within the substation are also being constructed. The substation is being built to support regional reliability and growing electric demand. The microwave tower is needed in order to provide communications to the Springbrook Substation critical to the reliability of the bulk electric system. The substation and related facilities are expected to be completed in 2024.

The Project is under the jurisdiction of the North Dakota Public Service Commission (PSC), which issued its Findings of Fact, Conclusions of Law, and Order, Fifth Amended Certificate of Corridor Compatibility No. 152, and Fifth Amended Route Permit No. 164 on October 9, 2024, for Case No. PU-24-236.

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 Meadowlark to perform a topsoil inspection for the Project. Meadowlark's scope of work was to complete and document an on-site inspection during the start of construction to verify that topsoil was being removed and segregated from subsoil in compliance with the siting laws, rules, and applicable Commission Orders. This report contains site visit observations and a summary of findings and issues that should be addressed for the Project.

3 Findings of Site Inspection

3.1 Methods

Zach Peterson, Project Manager/Field Inspector for Meadowlark visited the Project site on October 11, 2024, to conduct the topsoil inspection. Justin Rice, Project Superintendent for Basin Electric's third-party construction company for the Project accompanied Meadowlark during the inspection. The inspection occurred between 8:00 to 11:30 AM. Construction activities for the Project were commencing for the Project at the time of the visit.

Mr. Peterson observed equipment operators removing topsoil along a relatively flat portion of a harvested crop field to document that operators demonstrated the proper skill and techniques for removing topsoil and segregating the topsoil from any subsoil removed. The ability of operators to identify changes in soil color and characteristics as well as understanding the rules and regulations for topsoil removal were also noted. Photos (iPhone 15) 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 met Mr. Rice at the location of the Springbrook Substation where construction of the Project was commencing with the removal of topsoil for the substation facility located in Section 36, T156N, R100W in Williams County, North Dakota. Topsoil was removed starting with the outer perimeter of the substation and working towards the center of the facility. Multiple scrapers and graders worked in tandem to incrementally remove topsoil until the color change to the subsoil layer started to appear. Removed topsoil was stockpiled on earthen berms along the North, South, and West sides of the substation facility. No subsoil was being removed during the construction and the topsoil was properly segregated from the exposed subsoil and silt fence was placed outside the topsoil berms to prevent offsite runoff from the topsoil piles.

Equipment operators demonstrated the proper understanding of the rules for topsoil and subsoil removal and how to properly identify the change in soil characteristics between the topsoil and subsoil layers. Multiple passes with the equipment were used over the same ground to remove the topsoil in increments until the subsoil became visible. Topsoil removal was being conducted in compliance with the Commission's Order.

4 Issues to Resolve and Recommendations

Topsoil segregation was noted to be acceptable in the areas observed. Equipment operators were reminded to strip soil, where it existed, down to a maximum of 12 inches or to the depth where subsoil appeared. Equipment operators have demonstrated proficiency in topsoil removal and segregation in compliance with the Commission's Order.

Potential Issues	Recommendations
SWPPP/BMPs	Silt fence and straw waddles along the perimeter of the topsoil piles will need to be monitored regularly and replaced when necessary.

5 Signatures

The services performed by Meadowlark staff 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.

10/22/2024

Zach Peterson, Inspector

Date

Appendices

Photo Log and Observation Maps

On-Site Photographs

Basin Electric Antelope Valley to Neset 345kV Transmission Line Project- Williams County

Photo #: 1

Direction: West

Description: Graders stripping perimeter of pad area with other equipment staged in the center.

Observer: Zach Peterson

Date: 10/11/2024

Latitude: 48.295276

Longitude: -103.474670

Photo #: 2

Direction: North

Description: Soil stripped to color change along the east edge of the project area with scraper and grader stripping topsoil from stubble field.

Observer: Zach Peterson

Date: 10/11/2024

Latitude: 48.292322

Longitude: -103.475379

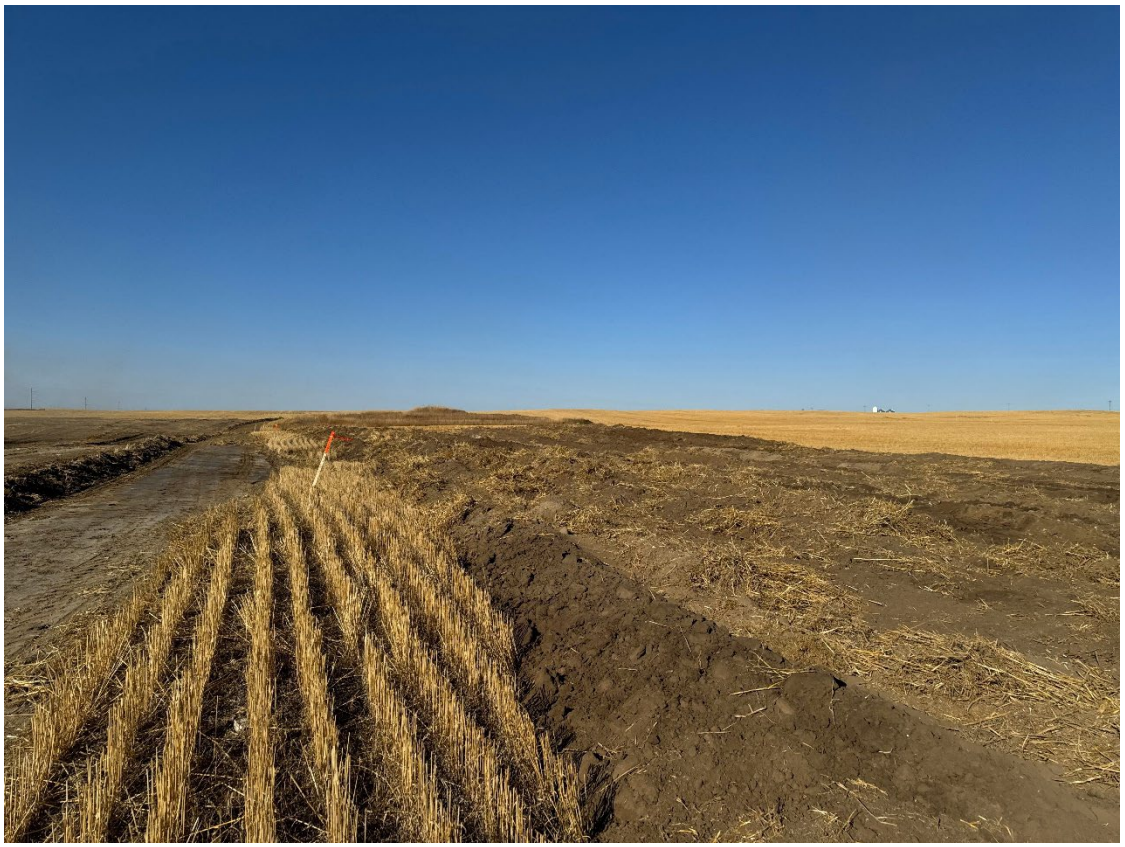
On-Site Photographs

Basin Electric Antelope Valley to Neset 345kV Transmission Line Project- Williams County

	Photo #: 3 Direction: West Description: Graders in tandem stripping topsoil from stubble field. Observer: Zach Peterson Date: 10/11/2024 Latitude: 48.292653 Longitude: -103.475324
	Photo #: 4 Direction: Northwest Description: Topsoil stripped to change in soil color along east end of Project area. Observer: Zach Peterson Date: 10/11/2024 Latitude: 48.293556 Longitude: -103.475334

On-Site Photographs

Basin Electric Antelope Valley to Neset 345kV Transmission Line Project- Williams County

	Photo #: 5 Direction: South Description: Silt fence along eastern perimeter of Project area. Observer: Zach Peterson Date: 10/11/2024 Latitude: 48.294096 Longitude: -103.475124
	Photo #: 6 Direction: West Description: Topsoil pile/berm along north end of Project area. Observer: Zach Peterson Date: 10/11/2024 Latitude: 48.294715 Longitude: -103.476395

Basin Electric Antelope Valley to Neset 345kV T-Line

Springbrook Station
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