

April 7, 2025

Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard Ave – Dept. 408  
Bismarck, ND 58505-0480

Please find enclosed two hardcopies of the topsoil inspection for the Bowman Wind Project, Case No. PU-21-121. If you have questions, please contact Zach Peterson at 701-341-1078.

Sincerely,



Zach Peterson  
Project Manager

*Enclosures: Construction Inspection Report PU-21-121 (2 hardcopies)*

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Topsoil Inspection Report

Meadowlark Environmental, LLC  
Zach Peterson, Project Manager

## **Bowman Wind Project**

**Bowman County**

***Topsoil Inspection Report***

**Docket Number: PU-21-121**

Prepared for North Dakota Public Service Commission



March 2025

# Topsoil Inspection Report

March 2025

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## 1 Executive Summary

The North Dakota Public Service Commission (PSC) retained Meadowlark Environmental, LLC (Meadowlark) to complete a topsoil inspection for the construction of the Bowman Wind Project (Project) in Bowman County North Dakota (ND), constructed by Apex Clean Energy (APEX). 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 March 25<sup>th</sup>, 2025. The inspection occurred during the start of construction activities to observe the removal of topsoil. Construction began with the clearing of topsoil at the Turbine A06 site location. The inspection was conducted to observe and document that equipment operators demonstrated the necessary skill for proper topsoil removal and knowledge of topsoil removal and segregation requirements. No major issues were observed during the inspection. Overall, equipment operators demonstrated the ability to remove topsoil until the color change appears between topsoil and subsoil. Vegetation removal was consistent with the tree and shrub mitigation plan.

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## 2 Background and Scope

### 2.1 Introduction

The Bowman Wind Project (Project) is being constructed by Apex and will consist of up to 74 wind turbines and have a nameplate capacity of up to 208.7 megawatts (MW), with up to 200 MW delivered to the grid. Associated facilities for the Project include new gravel access roads and improvements to existing roads, underground electrical collection and communication lines with above-ground junction boxes, two permanent MET towers, Aircraft Detection Lighting System (ADLS), Operations and Maintenance (O&M) facility, battery storage facility, and Project substation. The Project Area encompasses approximately 33,890 acres of land in Bowman County, North Dakota. Bowman Wind expects construction of the Project to be completed by the end of 2025.

Construction for the Project began with the removal of topsoil at the Turbine A06 site located in Section 33, Township 132 North, Range 103 West in Bowman County, North Dakota.

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 on February 8, 2023, and issued the Certificate of Site Compatibility No. 65 for Case No. PU-21-121.

### 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 of 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 March 25<sup>th</sup>, 2025, to conduct the topsoil inspection. Wes Cochran, Construction Manager for Apex and their environmental inspector accompanied Mr. Peterson. The inspection occurred between 8:00 AM and 11:30 AM. Construction activities were commencing for the Project at the time of the visit. Construction started with the clearing of vegetation and topsoil at the location of Turbine A06.

Mr. Peterson observed equipment operators removing topsoil within a mixed-grass pasture with rolling topography 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 and segregation 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. Cochran and Apex's environmental inspector at the laydown yard for the Project and proceeded to the location of Turbine A06 where construction activities for the project were beginning with the removal of topsoil for the turbine pad and foundation. The Turbine A06 site was located in mixed grass pasture. Topsoil and vegetation were not removed at the laydown yard where equipment and construction materials were staged. A bulldozer and grader were used to remove topsoil at the Turbine A06 site. Subsoil at the turbine location was not removed and the stripped topsoil was stockpiled along the north end of the disturbed area. Equipment operators carefully removed the topsoil until the subsoil layer became visible. Topsoil depth varied from 5 to 10 inches, with the top of the hillsides having shallower topsoil depth and the low-lying areas having the deepest topsoil depth. The topsoil pile was properly segregated from the subsoil and silt fence was being installed along the perimeter of the stockpiled topsoil to prevent offsite movement from precipitation.

The equipment operators demonstrated the proper understanding of the rules for topsoil removal and how to properly identify the change in soil characteristics between the topsoil and subsoil layers. Multiple passes with the blades were used over the same ground to remove the topsoil in increments until the subsoil became visible. This technique adequately removed the topsoil at proper depths across the varying contours of the area being cleared. 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.

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Potential Issues	Recommendations
<b>SWPPP Maintenance</b>	Silt fence, straw waddles, and other BMPs must be regularly checked to ensure sediment from the site does not move offsite.

## 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.



Zach Peterson, Inspector

4/7/2025

Date

## **Photo Log and Observation Maps**

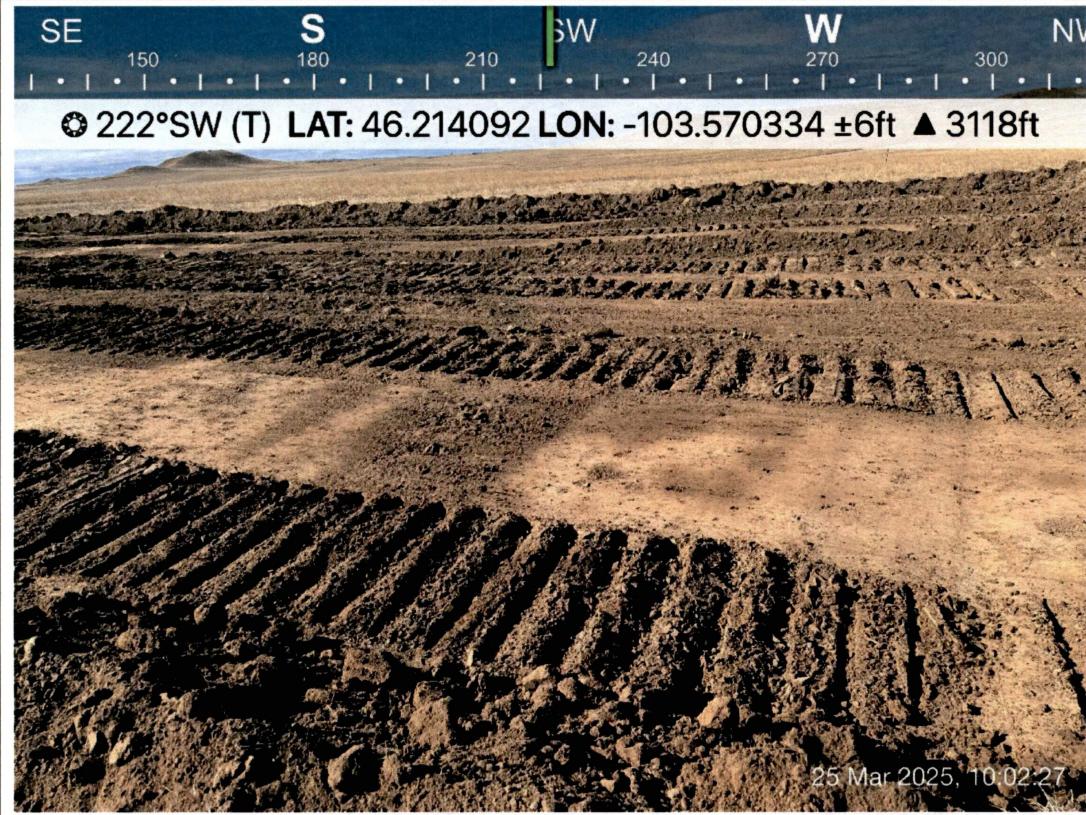
## On-Site Photographs

## Bowman Wind Project- Bowman County

 <p><b>S</b> SW <b>W</b> NW 180 210 240 270 300 330 ⌚ 263°W (T) LAT: 46.213992 LON: -103.569966 ±32ft ▲ 3122ft 25 Mar 2025, 09:54:44</p>	Photo #: 1 Direction: West Description: Bulldozer beginning topsoil removal at Turbine Site A06. Observer: Zach Peterson Date: 3/25/2025 Latitude: 46.213992 Longitude: -103.569966
 <p><b>N</b> NE <b>E</b> SE <b>S</b> 0 30 60 90 120 150 180 ⌚ 86°E (T) LAT: 46.213978 LON: -103.569964 ±16ft ▲ 3119ft 25 Mar 2025, 09:57:12</p>	Photo #: 2 Direction: East Description: Grader removing topsoil along perimeter of Turbine Site A06. Observer: Zach Peterson Date: 3/25/2025 Latitude: 46.213978 Longitude: -103.569964

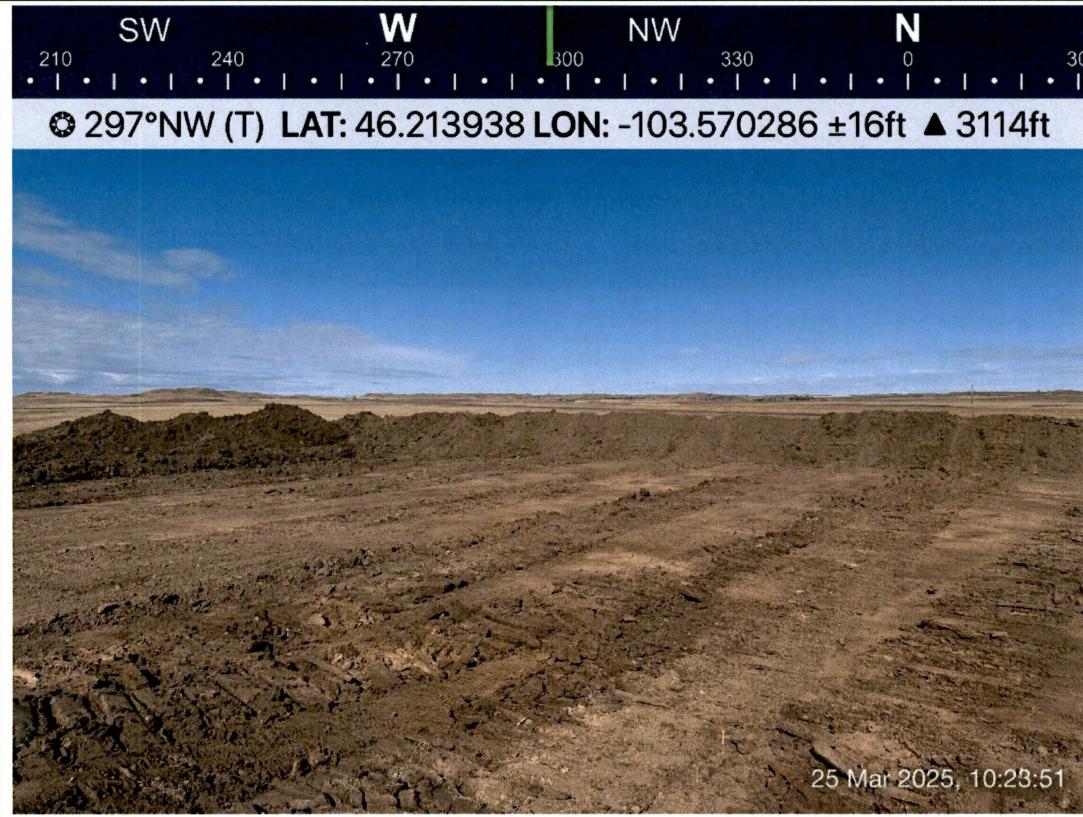
## On-Site Photographs

## Bowman Wind Project- Bowman County

 <p>SE 150 180 210 SW 240 270 300 NV</p> <p>222°SW (T) LAT: 46.214092 LON: -103.570334 ±6ft ▲ 3118ft</p> <p>25 Mar 2025, 10:02:27</p>	<p>Photo #: 3</p> <p>Direction: Southwest</p> <p>Description: Topsoil removed by bulldozer to depth where subsoil layer appears.</p> <p>Observer: Zach Peterson</p> <p>Date: 3/25/2025</p> <p>Latitude: 46.214092</p> <p>Longitude: -103.570334</p>
 <p>SE 150 180 210 SW 240 270 300 NV</p> <p>223°SW (T) LAT: 46.213925 LON: -103.569645 ±9ft ▲ 3115ft</p> <p>25 Mar 2025, 10:17:25</p>	<p>Photo #: 4</p> <p>Direction: Southwest</p> <p>Description: Topsoil removed by grader to depth where subsoil layer appears.</p> <p>Observer: Zach Peterson</p> <p>Date: 3/25/2025</p> <p>Latitude: 46.213925</p> <p>Longitude: -103.569645</p>

## On-Site Photographs

## Bowman Wind Project- Bowman County

 <p>SW 210 240 W 270 300 NW 330 N 0 30</p> <p>● 297°NW (T) LAT: 46.213938 LON: -103.570286 ±16ft ▲ 3114ft</p> <p>25 Mar 2025, 10:23:51</p>	<p>Photo #: 5</p> <p>Direction: Northwest</p> <p>Description: Topsoil pile at Turbine Site A06.</p> <p>Observer: Zach Peterson</p> <p>Date: 3/25/2025</p> <p>Latitude: 46.213938</p> <p>Longitude: -103.570286</p>
 <p>W 270 300 NW 330 N 0 30 NE 60</p> <p>● 335°NW (T) LAT: 46.213681 LON: -103.556455 ±9ft ▲ 3055ft</p> <p>25 Mar 2025, 10:42:10</p>	<p>Photo #: 6</p> <p>Direction: Northwest</p> <p>Description: Equipment and materials staged at Bowman Wind Laydown Yard.</p> <p>Observer: Zach Peterson</p> <p>Date: 3/25/2025</p> <p>Latitude: 46.213681</p> <p>Longitude: -103.556455</p>

# Bowman Wind Project

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Topsoil Inspection Photo Map

## Legend

- ◆ Laydown Yard
- Turbine A06

